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2019

2019 Groundwater Remediation and Monitoring Annual Report

January - December 2019



Bloomfield Terminal
Western Refining Southwest, Inc.
#50 Rd 4990
Bloomfield, New Mexico 87413

Submitted: April 2020

Prepared for
New Mexico Oil Conservation Division and
New Mexico Environment Department – Hazardous Waste Bureau

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List of Acronyms

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benzene, toluene, ethylbenzene, and xylene (BTEX)
below grade level (bgl)
diesel range organics (DRO)
dissolved oxygen (D.O.)
Environmental Protection Agency (EPA)
feet (ft)
gallons per minute (gpm)
gasoline range organics (GRO)
New Mexico Environment Department Hazardous Waste Bureau (NMED-HWB)
New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division
(EMNRD-OCD)
investigation derived waste (IDW)
liters (L)
maximum contaminant level (MCL)
methyl tert-butyl ether (MTBE)
micrograms per liter (ug/L)
micro Siemens per centimeter (uS/cm)
milligrams per liter (mg/L)
millivolts (mV)
monitoring well (MW)
New Mexico Administrative Code (NMAC)
Oxidation reduction potential (ORP)
parts per million (ppm)
photoionization detector (PID)
polyvinyl chloride (PVC)
pounds per square inch (psi)
Resource Conservation and Recovery Act (RCRA)
Semi-volatile organic compounds (SVOCs)
separate phase hydrocarbon (SPH)
Standard cubic feet per minute (scfm)
Temporary piezometer (TP)
top of casing (TOC)
total dissolved solids (TDS)
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List of Acronyms (continued)

total petroleum hydrocarbon (TPH)
toxicity characteristic leaching procedure (TCLP)
volatile organic compounds (VOC)
Wastewater Treatment System (WWTS)
Water Quality Control Commission (WQCC)

EXECUTIVE SUMMARY

This Annual Report includes a summary of activities conducted at the Bloomfield Terminal in 2019 pursuant to the reporting requirements outlined in Section IV.A.2. of the July 2007 Consent Order (NMED, 2007) issued by the New Mexico Environment Department Hazardous Waste Bureau (NMED-HWB), and Section 2.F. of Discharge Permit GW-001 (NMOCD, 2017) issued by the New Mexico Energy, Mineral, and Natural Resources Department Oil Conservation Division (EMNRD-OCD). This report includes a summary of sampling activities, total fluids recovery, and remediation monitoring activities conducted in 2019.

Groundwater Measurements

Depth-to-groundwater and depth-to-product measurements were taken from the facility monitoring wells, recovery wells, observation wells, and collection wells prior to the collection of groundwater samples during the Semi-Annual and Annual Sampling Events conducted in April 2019 and August 2019, respectively. The field measurements were taken a minimum of 48 hours after the recovery well pumps were turned off to allow the groundwater elevation to stabilize. Groundwater elevation contours show that groundwater generally flows in a northwest direction, with groundwater under the former process areas flowing towards the north boundary barrier wall and Hammond Ditch collection system.

When compared to the 2018 fluid level measurements, the measurements collected in 2019 indicated a reduction in the SPH thickness in the wells MW-20, MW-41, MW-72, RW-19, and RW-28.

Groundwater and Surface Water Monitoring

Groundwater and surface water monitoring activities conducted in 2019 included the collection of groundwater samples and field data from the following four areas of the facility:

- Terminal Complex includes Terminal, Cross-Gradient, Downgradient, and RCRA Wells;
- North Boundary Barrier includes observation and collection wells;
- San Juan River Bluff includes Outfall and Seep locations; and
- San Juan River Terrace includes San Juan River samples.

Sampling associated with the Bioventing System located at the River Terrace is summarized in the *River Terrace Voluntary Corrective Measures Bioventing System Annual Report*, which is submitted in March of each year. Groundwater and surface water monitoring activities conducted in April and August 2019 follow the guidelines outlined in the approved Facility-Wide Groundwater Monitoring Plan dated June 2014 and Discharge Permit GW-001.

Groundwater concentrations above respective screening levels are primarily localized near the former refinery process units and tank farm. No major changes were observed in the groundwater concentrations. The north boundary barrier wall and active groundwater recovery systems within the facility provide hydraulic capture of the impacted groundwater, and thus eliminate the concern of impacts to the San Juan River.

Outfall and Seep Inspections

Weekly visual inspections of Seeps 1, 2, 3, and 5 and along the San Juan River Bluff, which includes the East Fork area, were conducted in 2019. Visual inspection results and samples collected along the San Juan River as part of the groundwater monitoring program for the Bloomfield Terminal indicate that there has been no impact to the San Juan River.

Total Fluids Recovery Systems

The Bloomfield Terminal operates and monitors several fluid recovery systems within the facility, which include:

- Groundwater Recovery System using recovery wells within the Terminal Complex;
- North Boundary Barrier Collection System;
- Hammond Ditch Recovery System;
- River Terrace Remediation System; and
- East Outfall Recovery System.

All fluids recovered from these systems, with the exception of the River Terrace Remediation System, are pumped to the on-site Waste Water Treatment Plant for treatment prior to disposal through the on-site injection well or evaporation ponds. Groundwater recovered at the River Terrace Remediation System is treated through two granular activated carbon units and discharged to the raw water ponds.

SECTION 1.0 INTRODUCTION

1.1 Site Location and Description

Owner: San Juan Refining Company, a New Mexico Corporation

1250 Washington Street Tempe, Arizona 85281

Operator: Western Refining Southwest, Inc.

(Formerly Giant Industries Arizona, Inc.), an Arizona Corporation

1250 Washington Street Tempe, Arizona 85281

Facility: Bloomfield Terminal (physical address)

50 Road 4990

Bloomfield, New Mexico 87413

Western Refining Southwest, Inc. (postal address)

P.O. Box 159

Bloomfield, New Mexico 87413

US EPA ID: NMD089416416

SIC Code: 5171

The former Bloomfield Refinery facility is currently owned by San Juan Refining Company, a New Mexico corporation, and operated by Western Refining Southwest, Inc. formerly known as Giant Industries Arizona, Inc., an Arizona corporation. The facility had an approximate refining capacity of 18,000 barrels per day before refining operations were terminated in November 2009. Various process units operated at the facility, which included crude distillation, reforming, fluidized catalytic cracking, sulfur recovery, merox treater, catalytic polymerization, and diesel hydrotreating. Products produced at the refinery included gasoline, diesel fuels, jet fuels, kerosene, propane, butane, naphtha, residual fuel, fuel oils, and liquid petroleum gas (LPG).

The Bloomfield Terminal ("Terminal") is a crude oil and petroleum product transfer and storage facility that includes truck loading and unloading. The Terminal stores and transfers crude oil, petroleum products (e.g., naphtha, unleaded gasoline, diesel, and kerosene) and ethanol. The purpose of the facility is to transfer crude oil and petroleum products between pipelines, trucks and storage tanks. Crude oil and petroleum products arrive by pipeline or tank trucks. The tank farm is a system of storage tanks used throughout the Terminal to hold and store crude oil, petroleum products, fuel additives, and water. These tanks are located above ground and range

in size from 110,000 barrels to less than 1,000 barrels. Pumps, valves, and piping systems are used throughout the Terminal to transfer various liquids among tankage and loading racks. Several tank truck loading racks are used to load out petroleum products and receive crude oil and gasoline additives.

The Terminal is located on approximately 263 acres south of Bloomfield, New Mexico in San Juan County (Figure 1). The Terminal complex is bisected by County Road 4990 (Sullivan Road), which runs east-west (Figure 2). The part of the Terminal tankage located north of County Road 4990 includes the following general areas:

- Office Area (buildings, warehouse, maintenance, storage yard)
- Parking Lots
- Diesel Unloading
- Wastewater Treatment Unit (WWTU)
- Tank Farm Area
- Used Equipment Laydown Area
- Firefighting Training Area
- Former Refinery Units
- Class I Injection Well
- Raw Water Ponds

The remainder of the Terminal facility, regional business office, transportation maintenance facility, and the evaporation ponds are located on a 25-acre site south of County Road 4990 and includes the following general areas:

- Terminal Office and Parking Lot
- Crude Oil Unloading Station
- Product Loading and Unloading Station
- Storage Tank Area
- Regional Office and Parking Lot
- Transportation Maintenance Truck Shop and Truck Parking Lot
- Wastewater Evaporation Ponds
- 90-day Hazardous Waste Bay

The Bloomfield facility is located on a bluff 120 feet above the south side of the San Juan River. The top of the bluff is relatively flat and is at an elevation of 5,540 feet above sea level. Based on the available site-specific and regional subsurface information, the site is underlain by the Quaternary Jackson Lake terrace deposits, which unconformably overlie the tertiary Nacimiento Formation. The Jackson Lake deposits consist of fine grained sand, silt, and clay that grades to course sand, gravel and cobble size material closer to the contact with the Nacimiento Formation. The Jackson Lake Formation is over 40 feet thick near the southeast portion of the site and generally thins to the northwest toward the San Juan River. The Nacimiento Formation

is primarily composed of fine grained materials (e.g., carbonaceous mudstone/claystone with interbedded sandstones) with a reported local thickness of approximately 570 feet (Groundwater Technology, 1994).

1.2 History of Facility Modifications and Improvements

1.2.1 Previous Owner's Activities

Local entrepreneur, Kimball Campbell, constructed the crude topping unit that eventually became the Bloomfield Refinery facility in the late 1950s. O.L. Garretson bought the facility in the early 1960s, renamed it Plateau, Inc. and sold it in 1964 to Suburban Propane of New Jersey.

Operationally, the facility had steadily evolved through a series of improvements, modifications and expansions. Suburban upgraded the facility in 1966, increasing the Crude Unit throughput to 4,100 barrels per calendar day (bpcd) and adding 1,850 bpcd Reformer and Naphtha Hydrotreater. In 1975, the Crude Unit was expanded to 8,400 bpcd.

In 1979, the Crude Unit was expanded again to 16,800 bpcd (later demonstrated to have a hydraulic capacity in excess of 18,000 bpcd). A Fluidized Catalytic Cracker (FCC) with a nominal capacity of 6,000 bpcd, an Unsaturated Gas Plant and a Treater Unit were also added at that time. The capacity of the Reformer / Hydrotreater was increased to 2,250 bpcd. The FCC was upgraded in 1982 to conform to State and Federal air quality standards.

1.2.2 Bloomfield Refining Activities

Bloomfield Refining Company (BRC) acquired the facility from Suburban Propane (Plateau) on October 31, 1984. The current owner of the facility is San Juan Refining Company. Western Refining Southwest, Inc. is the facility operator.

Over the years, there have been many improvements made to facility operations and equipment. These improvements are summarized below.

<u>1986</u>

Relocated the spent caustic tank onto a concrete pad with retaining walls.

1987

- Upgraded the Reformer and increased its capacity to 3,600 barrels per day (bpd).
 Modified the Laboratory and Treater Unit and increased tank storage capacity.
- Cleaned up the North and South bone yards.
- Decommissioned and dismantled old Tanks 6 and 7.
- Relocated the API recovered oil Tank 8 and Tank 9 to concrete pads with concrete retaining walls.
- Established a systematic inspection, maintenance, and repair program for tanks.

<u>1988</u>

- Added a 2,000 bpd Catalytic Polymerization Unit. Removed the facility's two underground storage tanks and replaced them with aboveground storage tanks.
- Completed installation of a Cathodic Protection System for the Tank Farm and underground piping.
- Rebuilt the process area sewer system and added curbed, concrete paving to the unpaved process areas.

<u>1989</u>

- Increased Reformer throughput to 4,000 bpd.
- Activated the groundwater hydrocarbon recovery system.
- Constructed the first double-lined Evaporation Pond as part of Refinery's Discharge Plan improvements.

1990

- Constructed the second double-lined Evaporation Pond as part of the Refinery's Discharge Plan improvements.
- Constructed a drum storage shed and converted to bulk chemical usage, where possible, in order to minimize the use of drummed chemicals.

1991

- Revamped the burner fuel sales rack with concrete paving and curbing.
- Submitted the permit application for a Class 1 Disposal Well.
- Upgraded the groundwater hydrocarbon recovery system.

1992

• Submitted an air quality permit application. The application included a proposal to install a Diesel Hydrodesulphurization (HDS) Unit and a Sulfur Recovery Unit (SRU) in order to comply with new EPA low-sulfur diesel regulations and decrease air emissions.

1993

 Began a program under a Consent Agreement with the United Stated Environment Protection Agency (USEPA) to conduct Interim Measures (IM), a RCRA Facility Investigation (RFI) and a Corrective Measures Study (CMS) addressing groundwater contamination.

- Replaced portions of the underground cooling water piping.
- Added concrete paving around the API Separator.
- Installed the HDS Unit and SRU.

<u> 1994</u>

- Completed installation of the Class 1 Injection Well.
- Retrofitted the Aeration Lagoons with two additional liners.
- Installed a floating cover for the API Separator.
- Closed the clay-lined evaporation ponds and spray evaporation area.

1995

- Improved the diking south of the Refinery to further reduce storm water runoff.
- Began implementation of additional corrective measures for groundwater cleanup as determined from the CMS.

1998

 Converted the former evaporation ponds on the east side of the Refinery to raw water storage ponds.

1999

Installed sheet pilings and a bentonite slurry wall adjacent to the San Juan River, North
of the process units, in order to intercept a small hydrocarbon seep that had been
detected in the area.

2001

 Initiated a program to inoculate the Aeration Lagoons with sludge-consuming microorganisms.

2002

 A concrete liner was installed on the Hammond Ditch. At that time, Giant constructed the Hammond Ditch French Drain Recovery System to address contamination under the ditch.

2003

Several monitoring wells were converted into recovery wells to further enhance the
continuing ground water remediation efforts. MW-45, MW-46 & MW-47 were installed to
facilitate sample collection. East Outfall #1 Recovery System was set up to return
impacted water back to the refinery.

2004

 Monitoring wells MW-48, MW-49 and eight temporary piezometers were installed as part of Voluntary River Terrace Investigation activities.

- Several temporary piezometers were drilled on the north side of Hammond Ditch to determine the surface elevation of the Nacimiento Formation. Design of a slurry wall to be constructed on the north side of Hammond Ditch was completed.
- Lined containments were constructed in the draws north of Hammond Ditch in order to collect potentially contaminated groundwater which discharged to the land surface.
- Sewer lines were replaced in the Treater and FCC.

<u>2005</u>

- The North Boundary Barrier Wall installation was completed March 2005. Fourteen observation wells were installed on the north side of the slurry wall and fifteen collection wells were installed on the south side of the slurry wall in April 2005.
- As a matter of preventive maintenance, the lined containments in the draws north of the slurry wall were upgraded periodically.
- In April, five more temporary piezometers were installed at the River Terrace. In August, Dewatering Wells (DW-1 and DW-2) and thirteen bioventing wells were drilled and construction of the River Terrace Bioventing Project was initiated.

2006

- The River Terrace Bioventing System was put on-line in January 2006. Monitoring data from that project is submitted in a separate report to the regulatory agencies.
- During the week of February 13, 2006 seven sump wells were installed along the bluff north of the barrier wall. These wells were drilled in accordance with the North Barrier Wall Work Plan which was submitted to OCD February 7, 2006.
- Fluids extraction from the observation and collection wells, the north draws, and the sump wells continued throughout 2006.
- As a matter of preventive maintenance, the lined containments in the draws north of the slurry wall were upgraded periodically.

2007

- On May 31, 2007, Giant Industries, Inc. became a wholly-owned subsidiary of Western Refining, Inc. of El Paso, Texas.
- Construction of the Ammonia Refrigeration Unit (ARU) was completed and the system put on line by March 2007. This unit is used to recover propane from hydrogen streams.
- Construction of the Benzene Stripper was completed and the system put in service by October 2007. This unit is used to strip benzene from process waste water.
- Discharge piping was installed at RW #1 to increase the recovery capacity of the well.
- As a matter of preventive maintenance, the lined containments in the draws north of the slurry wall (Seeps 1-9) were upgraded periodically.

2008

• The Facility-Wide Groundwater Monitoring Plan (Revised May 2008) was approved and implemented in the latter half of 2008.

- In September, Group No. 2 RCRA Site Investigation activities commenced. Areas included in Group No. 2 are SWMU No. 2, SWMU No. 8, SWMU No. 9, SWMU No. 11, and SWMU No. 18.
- As part of the Closure Plan North and South Aeration Lagoons the ponds were drained, cleaned out, inspected, repaired, and put back in service. This process started in October 2008 and was completed in February 2009.

2009

- In March, monitoring wells were installed around the Aeration Lagoons to satisfy Group No. 1 RCRA site investigation requirements. Group No. 3 Site Investigation activities began in April. This group includes SWMU No. 4, SWMU No. 5, AOC No. 22, AOC No. 23, AOC No. 24, AOC No. 25, and AOC No. 26.
- On November 23, 2009, Western Refining indefinitely suspended refining operations at the Bloomfield Refinery. The crude unloading and product loading racks, storage tanks and other supporting equipment remain in operation.

2010

- In January 2010, due to analytical results indicating high benzene levels, piping was installed to permanently route discharge water from Tank 33 to the API Separator.
- In August, Group No. 4 and Group No. 5 investigation field activities were conducted which included the installation of three monitoring wells.

2011

In August 2012, Group No. 6 RCRA Investigation activities were conducted, which
involved soil sampling within each of the Seep Areas located along the northwest portion
of the facility.

2012

- In January 2012 the group 8 RCRA Investigation activities commenced, which involved soil sampling within SMWU No. 3 – Underground Piping Currently in Use, and SWMU No. 6 – Abandoned Underground Piping.
- On October 12, 2012, NMED Hazardous Waste Bureau approved a Work Plan submitted by Western dated October 9, 2012 authorizing Western to optimize the remediation efforts at the River Terrace. Optimization activities conducted in 2012 included the removal of approximately 250 cubic yards of impacted clay-type soil from the River Terrace, and conversion of a portion of the biovent system to an air sparging system in efforts to target the most impacted groundwater area located within the southwest corner of the River Terrace.
- In the third quarter 2012, Western commenced work that involves enhancement of the total fluids recovery system. This work involves transitioning five monitoring wells (MW-20, MW-55, MW-56, MW-57, and MW-58) and one recovery well (RW-3) to operational total fluids recovery wells. RW-3 was returned to operation by the fourth quarter 2012. Operation of the monitoring wells located near the aeration lagoons is expected to begin in April 2013.

2013

- In the first quarter 2013, Western completed work that involves enhancement of the total fluids recovery system. This work involved transitioning five monitoring wells to active total fluids recovery wells (MW-20, MW-55, MW-56, MW-57, and MW-58). Operation of the monitoring wells located near the aeration lagoons has commenced.
- In June 2013, Western removed two former diesel dispenser pumps, storage tank, associated piping, former fueling pad and approximately 500 cubic yards of soil. Soil samples confirmed all the impacted soil was removed from the immediate vicinity of the former diesel fueling pumps.
- In 2013 Western replaced Tank 37, Tank 38 and Tank 34 with new equivalent tanks.
 Tank 37 and Tank 34 containments were also lined.
- Well MW-70 was developed on May 22, 2013 and baseline samples were collected on June 13, 2013.

2014

- In 2014 Western Refining preformed an environmental site investigation for the SWMUs designated as Group 9 and SWMU No. 27 Wastewater Collection System. Group 9 includes SWMU No. 12 (API Separator), SWMU No. 13 (Process Area) and SWMU No. 14 (Tanks 3, 4, and 5)
- In August 2014, NMED was notified of a significant rain event that resulted in severe flash flooding in the Bloomfield, New Mexico area. The storm caused the Hammond ditch to reverse flow directions, resulting in the entire roadway along the north boundary barrier to fill with water. The significant run-off along the river bluff resulted in Seep 4, Seep 6, Seep 7, Seep 8 and Seep 9 to permanently erode away due to the heavy surface run-off. Prior to the flooding event, these locations were no longer actively collecting seep water due to the existence of the north boundary barrier, and had previously been investigated as part of the 2007 Consent Order. Therefore as of August 2014, the only existing catchment locations are Seep 1, Seep 2, Seep 3, and Seep 5.

2015

• In 2015 routine groundwater and surface water sampling were conducted per the approved Facility-Wide Groundwater Monitoring Plan.

2016

Routine groundwater and surface water sampling were conducted in 2016.

<u>2017</u>

- The terminal operated as usual in 2017 without any deviations from normal operations.
- There were no reportable leaks, spills, or releases in 2017. There was no indication of expanding groundwater contamination and routine corrective action was implemented to address the known plume.
- Fluids were observed in the leachate collection system in the North and South Evaporation ponds, as was also previously observed in prior years since the ponds were constructed. A summary of the fluids was previously provided in correspondence to the OCD dated June 23, 2017.

- Information on the volume of water placed in the evaporation ponds and ultimately disposed in the injection well is provided in the Annual Report for the injection well. The new injection well was put into service in 2017, the details of which are provided in the Annual Report for the injection well.
- Routine groundwater and surface water sampling were conducted in 2017.
- Discharge Permit GW-001 was renewed on June 8, 2017.

<u>2018</u>

- The terminal operated as usual in 2018 without any deviations from normal operations.
- On May 17, 2018 a release of slop oil was discovered at a culvert that crosses beneath County Road 4990. The material described as slop oil consists of petroleum products that originate at the truck loading rack and crude oil that originates at the crude oil unloading rack. The pipeline was evacuated of hydrocarbons and free liquids were removed. Impacted soils were removed and the excavation was backfilled due to potential traffic hazards along the immediately adjacent county road. In October 2018 an Investigation Work Plan was submitted to OCD and NMED.
- Routine groundwater and surface water sampling were conducted in April and August 2018.

2019

- The terminal operated as usual in 2019 without any deviations from normal operations.
- Routine groundwater and surface water sampling were conducted in April and August 2019.

SECTION 2.0 SCOPE OF ACTIVITIES

This Annual Report includes a summary of activities conducted at the Bloomfield Terminal in 2019 pursuant to the reporting requirements outlined in Section IV.A.2. of the July 2007 Consent Order issued by the NMED-HWB, and Section 2.F. of Discharge Permit GW-001 issued to the Bloomfield Terminal by the EMNDR-OCD. This report includes a summary of sampling activities, total fluids recovery, and remediation monitoring activities conducted in 2019.

2.1 Groundwater and Surface Water Monitoring Activities

Groundwater and surface water monitoring activities conducted in 2019 include the collection of groundwater and surface water samples and field data from the following four areas of the facility:

- Terminal Complex;
- North Boundary Barrier;
- San Juan River Bluff; and
- San Juan River Terrace.

Monitoring activities conducted in April and August 2019 followed the guidelines outlined in the approved Facility-Wide Groundwater Monitoring Plan dated June 2014. Detailed information regarding groundwater and surface water analyses conducted in 2019 is included in Section 3.1.

2.1.1 Fluid Measurements

Depth-to-groundwater and depth-to-product measurements were collected from the facility monitoring wells, recovery wells, observation wells, and collection wells prior to the collection of groundwater samples during the Semi-Annual and Annual Sampling Events conducted in April 2019 and August 2019, respectively. All fluid level measurements were collected using a Geotech Interface Probe that measures to an accuracy of 0.01 feet. The field measurements were collected a minimum of 48 hours after the recovery well pumps were turned off to allow the groundwater elevation to stabilize. A summary of the fluid measurements collected is provided in Section 3.1.1.

2.1.2 Groundwater Field Parameters

Prior to collecting groundwater samples, each well was purged a minimum of three well volumes. Groundwater field parameters (temperature, pH, and conductivity) were collected after purging one well volume. The total volume purged at each well was determined once the pH, temperature, and conductivity field parameters stabilized to within 10 percent for three measurements. A summary of the field measurements collected is provided in Section 3.1.2. In addition, field parameters were collected at the outfalls and seeps when sufficient water was present.

2.1.3 Terminal Complex Sampling

Groundwater samples were collected from specified wells located within the Terminal Complex during the Semi-Annual Sampling Event and Annual Sampling Event conducted in April 2019 and August 2019, respectively, with the exception of wells that contained evidence of SPH, wells that exhibited a sheen during purging, wells that were dry, or wells that did not contain enough water to collect a sample. Figure 16 and Figure 17 show the location of the wells sampled during each sampling event. A summary of the analytical results is provided in Section 3.1.3.

Semi-Annual Sampling Event

Groundwater samples were collected from the following wells during the Semi-Annual Sampling Event conducted in April 2019:

- Terminal Wells: MW-52;
- Cross-Gradient Wells: MW-1 and MW-13;
- Downgradient Wells: MW-12, MW-35, MW-37, and MW-38.

Groundwater samples collected during the Semi-Annual Sampling Event were submitted to Hall Environmental Analytical Laboratory (HEAL) and analyzed for the following:

- Volatile organic compounds (VOCs) Target List benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tert-butyl ether (MTBE) by EPA Method 8260B; and
- Total petroleum hydrocarbons (TPH) Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and Motor Oil Range Organics (MRO) by EPA Modified Method 8015B (Terminal Well MW-52 and Downgradient Well MW-35 are not scheduled for TPH analysis).

Terminal Well MW-20 was not sampled due to the presence of measurable SPH during the gauging event. Groundwater samples were not collected from Terminal Well MW-30 due to the presence of a hydrocarbon sheen during the purging of the well for sampling. Cross-Gradient Well MW-33 was not sampled due to the insufficient volume of groundwater. Background Well MW-6 was dry and was not sampled.

No RCRA Investigation Wells are scheduled for sampling during the Semi-Annual Sampling Event conducted in April.

Annual Sampling Event

Groundwater samples were collected from the following wells during the Annual Sampling Event conducted in August 2019:

- Terminal Wells: MW-29, MW-31, MW-44, and MW-52;
- Cross-Gradient Wells: MW-1, MW-13, MW-27, and MW-32;
- Downgradient Wells: MW-11, MW-12, MW-34, MW-35, MW-37, and MW-38; and
- RCRA Investigation Wells: MW-53, MW-59, MW-62, MW-63, MW-64, MW-67, MW-68, and MW-70.

Groundwater samples collected during the Annual Sampling Event were submitted to HEAL and analyzed for the following:

- VOCs by EPA Method 8260B;
- TPH-DRO by EPA Method 8015B;
- TPH-GRO by EPA Method 8015B;
- TPH-MRO by EPA Method 8015B;
- Total RCRA 8 Metals by EPA Method 6010B/7470;
- Dissolved Metals by EPA Method 6010B/7470;
- Alkalinity by EPA Method 310.1;
- Anions by EPA Method 300.0; and
- Carbon Dioxide by EPA Method 310.1.

Groundwater samples were not collected from Terminal Wells RW-9, MW-20, RW-28, and RW-43 due to the presence of SPH during the facility-wide gauging event. Groundwater samples were not collected from Terminal Wells RW-1, MW-4, RW-15, RW-18, MW-21, MW-30, MW-40, RW-23, and RW-42 due to the presence of a hydrocarbon sheen during the purging of the well for sampling.

Cross-Gradient Well MW-26 was not sampled due to the presence of SPH during the facility-wide gauging event. Cross-Gradient Well MW-33 was not sampled due to the insufficient volume of groundwater.

Groundwater samples were not collected from RCRA Investigation Wells MW-57, MW-58, MW-61, and MW-66 due to the presence of SPH during the facility-wide gauging event. Groundwater samples were not collected from RCRA Investigation Wells MW-54, MW-55, MW-56, and MW-65 due to the presence of a hydrocarbon sheen during the purging of the well for sampling. Groundwater samples were not collected from RCRA Investigation Wells MW-60 and MW-69 due to an insufficient volume of groundwater.

Background Wells MW-3, MW-5, and MW-6 were dry and were not sampled.

2.1.4 North Boundary Barrier Sampling

Groundwater samples were collected from observation wells and specified collection wells in April 2019 and August 2019, with the exception of wells that contained evidence of SPH, wells that were dry, or wells that did not contain enough water to collect a sample. Figure 16 and Figure 17 shows the location of the North Boundary Barrier wells that were sampled in April 2019 and August 2019, respectively. A summary of the groundwater results is provided in Section 3.1.4.

Semi-Annual Sampling Event

Groundwater samples were collected from the following wells during the Semi-Annual Sampling Event conducted in April 2019:

- Collection Wells: CW 0+60 and CW 25+95; and
- Observation Wells: OW 8+10, OW 19+50, OW 22+00, OW 23+90, and OW 25+70.

Groundwater samples collected in April 2019 were submitted to HEAL and analyzed for the following:

- VOCs-BTEX and MTBE only by EPA Method 8260B;
- TPH-GRO by EPA Modified Method 8015B;
- TPH-DRO by EPA Modified Method 8015B; and
- TPH-MRO by EPA Method 8015B.

Groundwater samples were not collected from Observation Wells OW 0+60, OW 1+50, OW 3+85, OW 11+15, OW 16+60, and OW 23+10 due to the presence of a hydrocarbon sheen during the purging of the wells for sampling.

Observation Well OW 14+10 was dry and was not sampled. Groundwater samples were not collected from Observation Wells OW 5+50 and OW 6+70. These wells did not yield enough water after purging to sample.

Annual Sampling Event

Groundwater samples were collected from the following wells during the Annual Sampling Event conducted in August 2019:

- Collection Wells: CW 0+60 and CW 25+95; and
- Observation Wells: OW 8+10, OW 19+50, OW 22+00, OW 23+90, and OW 25+70.

Groundwater samples collected during the Annual Sampling Event were submitted to HEAL and analyzed for the following:

- VOCs BTEX and MTBE by EPA Method 8260B;
- TPH-GRO by EPA Modified Method 8015B;
- TPH-DRO by EPA Modified Method 8015B; and
- TPH-MRO by EPA Method 8015B.

Groundwater samples were not collected from Observation Wells OW 3+85, OW 11+15, OW 16+60, and OW 23+10 due to the presence of a hydrocarbon sheen during the purging of the wells for sampling.

Observation Wells OW 1+50, OW 6+70, and OW 14+10 were dry and were not sampled. Groundwater samples were not collected from Observation Wells OW 0+60 and OW 5+50. These wells did not yield enough water after purging to sample.

2.1.5 San Juan River Bluff Sampling

San Juan River Bluff sampling includes the collection of water samples at the outfall locations along the eastern portion of the facility, and at the seeps located along the western portion of the facility. Figure 3 shows the outfall and seep locations. A summary of the analytical results is provided in Section 3.1.5.

Semi-Annual Sampling Event

Water samples were collected from the East Outfall #2 and East Outfall #3 locations during the 2019 Semi-Annual Sampling Event.

Water samples collected were submitted to HEAL and analyzed for the following:

- VOCs BTEX and MTBE by EPA Method 8260B;
- Total RCRA 8 Metals by EPA Method 6010B/7470;
- Dissolved Metals by EPA Method 6010B/7470;
- Alkalinity by EPA Method 310.1;
- Anions by EPA Method 300.0; and
- Carbon Dioxide by EPA Method 310.1.

Surface water samples were not collected from Seep 1, Seep 2, Seep 3 and Seep 5 due to the absence of an active discharge at each location.

Annual Sampling Event

Water samples were collected from the East Outfall #2 and East Outfall #3 locations during the 2019 Annual Sampling Event.

Water samples collected were submitted to HEAL and analyzed for the following:

- VOCs BTEX and MTBE by EPA Method 8260B;
- Total RCRA 8 Metals by EPA Method 6010B/7470;
- Dissolved Metals by EPA Method 6010B/7470;
- Alkalinity by EPA Method 310.1;
- Anions by EPA Method 300.0; and
- Carbon Dioxide by EPA Method 310.1.

Surface water samples were not collected from Seep 1, Seep 2, Seep 3, and Seep 5 due to the absence of an active discharge at each location.

2.1.6 San Juan River Terrace Sampling

San Juan River Terrace sampling includes the collection of surface water samples at four locations along the San Juan River and the collection of groundwater samples at the San Juan River Terrace. A summary of activities conducted and groundwater samples collected that are associated with the bioventing system located at the San Juan River Terrace are included in the previously submitted *River Terrace Voluntary Corrective Measures Bioventing System Report*

dated February 2020. Therefore sampling activities associated with the Bioventing System are not included in this report.

Figure 3 shows the approximate surface water sample locations along the San Juan River. A summary of the surface water analytical results is provided in Section 3.1.6.

Semi-Annual Sampling Event

Surface water samples were collected from the following locations during the Semi-Annual Sampling Event conducted in April 2019:

• San Juan River: Upstream, North of MW-46, North of MW-45, and Downstream.

Surface water samples collected during the Semi-Annual Sampling Event were submitted to HEAL and analyzed for the following:

- VOCs BTEX and MTBE by EPA Method 8260B;
- TPH-DRO by EPA Method 8015B;
- TPH-GRO by EPA Method 8015B;
- TPH-MRO by EPA Method 8015B;
- Total RCRA 8 Metals by EPA Method 6010B/7470;
- Dissolved Metals by EPA Method 6010B/7470;
- Alkalinity by EPA Method 310.1;
- Anions by EPA Method 300.0;
- Carbon dioxide;
- Specific conductance; and
- Total dissolved solids.

Annual Sampling Event

Surface water samples were collected from the following locations during the Annual Sampling Event conducted in August 2019:

San Juan River: Upstream, North of MW-46, North of MW-45, and Downstream.

Surface water samples collected during the Annual Sampling Event were submitted to HEAL and analyzed for the following:

- VOCs BTEX and MTBE by EPA Method 8260B;
- TPH-DRO by EPA Method 8015B;
- TPH-GRO by EPA Method 8015B;
- TPH-MRO by EPA Method 8015B;
- Total RCRA 8 Metals by EPA Method 6010B/7470;

- Dissolved Metals by EPA Method 6010B/7470;
- Alkalinity by EPA Method 310.1;
- Anions by EPA Method 300.0;
- Specific conductance; and
- Total dissolved solids.

2.1.7 Outfall and Seep Inspections

Weekly visual inspections of Seep 1, Seep 2, Seep 3, and Seep 5 along the San Juan River Bluff, which includes the East Fork area, were conducted in 2019. Figure 3 shows the location of the outfalls and seeps. A summary of the inspections performed is provided in Section 3.1.7.

2.2 Total Fluids Recovery Systems

2.2.1 Groundwater Recovery System

The Bloomfield Facility operates a total fluids pumping system used to recover SPH and hydrocarbon impacted groundwater for treatment and disposal. This is accomplished by actively pumping wells within the groundwater impacted area. Recovered fluids are pumped to the on-site API separator for product recovery. The remaining recovered fluid is pumped through the WWTS prior to disposal. The groundwater recovery system was operational throughout 2019. The wells that operated as active recovery wells in 2019 are RW-1, RW-2, RW-3, RW-9, RW-14, RW-15, RW-16, RW-17, RW-19, MW-20, RW-22, RW-23, RW-28, RW-42, MW-55, MW-56, MW-57, MW-58, and MW-69. Figure 2 shows the location of the recovery wells within the Facility. An operational summary of the groundwater recovery system is included in Section 3.3.1.

2.2.2 North Boundary Barrier Wall Collection System

The North Boundary Barrier Wall, which was installed by April 2005, consists of a 2,700 foot long bentonite slurry wall that extends two to five feet into the Nacimiento Formation. The primary purpose of the wall is to prevent the migration of hydrocarbon-impacted groundwater towards the San Juan River. The collection system consists of 15 collection wells positioned along the facility-side of the barrier wall. For every collection well, there was also an observation well installed along the river-side of the barrier wall. Bloomfield Terminal personnel continued to monitor fluid levels on both sides of the barrier wall in 2019 by collecting depth-towater and depth-to-product measurements. Figure 2 shows the location of the collection wells

and observation wells along the North Boundary Barrier Wall. A summary of the data collected along the North Boundary Barrier Wall is provided in Section 3.3.2.

2.2.3 Hammond Ditch Recovery System

The Hammond Ditch Recovery System consists of recovery Tank 37, located along the western portion of the facility, and a French Drain system that was constructed below the concrete-lined Hammond ditch. Tank 37 collects groundwater from two 8-inch influent lines connected to the perforated sub-drain (the French Drain) beneath the Hammond Irrigation Canal. Tank 37 is equipped with a liquid level float control system and dedicated flow meter. Recovered water from Tank 37 is automatically pumped through a flow meter to the API Separator. The location of Tank 37 is shown on Figure 3.

The Hammond Ditch Recovery System serves as a hydraulic relief mechanism for groundwater that mounds along the Facility-side of the north barrier wall. Figure 3 shows the location of Tank 37. A summary of operational data for the Hammond Ditch Recovery System is included in Section 3.3.3.

2.2.4 River Terrace Remediation System

The River Terrace Bioventing System commenced operation in January 2006. A summary of activities associated with the River Terrace Bioventing System are submitted separately to the agencies in March of each year.

2.2.5 East Outfall Recovery System

Outfall 1 is equipped with a holding tank and automatic pumping system. Water from Outfall 1 discharges into Tank 38 directly and then is pumped to the on-site WWTS prior to disposal. Figure 3 shows the location of Tank 38.

The flow rate of recovered water entering Tank 38 is dependent upon the operation of the Hammond Ditch, which is located just south of Tank 38. A summary of the operational data of the East Outfall Recovery System for 2019 is included in Section 3.3.4.

2.3 Waste Disposal

Western Refining indefinitely suspended refining operations at the Facility on November 23, 2009. The crude unloading and product loading racks, storage tanks and other supporting

equipment remain in operation. Recovered water from on-site remediation activities and facility operations is treated through the on-site WWTS. Treated water is then disposed of through the on-site Class I injection well or evaporation ponds.

Significantly less waste is routinely generated since the suspension of refining operations in November 2009. The on-site landfill is no longer operational, and therefore all operational waste generated is properly characterized and disposed of off-site. Additional information regarding waste disposal activities is provided in Section 3.5.

SECTION 3.0 RESULTS SUMMARY

The following is a summary of the data collected, visual inspections conducted, and analytical results received during monitoring and testing performed in 2019. Figure 8 and Figure 9 provide a summary of the BTEX concentrations detected during the April 2019 and August 2019 sampling events, respectively. Figure 10 shows the analytical results for chloride, sulfate, nitrate, and total dissolved solids (TDS) for April 2019. Figures 11 through 15 depict the analytical results for naphthalene, chloride, sulfate, nitrate, and TDS for August 2019.

3.1 Groundwater and Surface Water Monitoring

A summary of the groundwater and surface water analytical results for samples collected over the past few years are included in Table 3 through Table 10. Screening levels used to evaluate the groundwater condition at the Bloomfield Terminal are reflective of the same conservative screening levels currently used for evaluation of on-going RCRA Investigation activities. Sample results included in the analytical summary tables that exceed the respective regulatory screening levels are highlighted in yellow, while all detected results are bolded. An electronic copy of the respective analytical reports is included in Appendix A. The analytical reports contain the respective quality assurance/quality control data reviews and validation. Included in Appendix B is a summary of the quality assurance/quality control data reviews and validation.

3.1.1 Fluid Level Measurements

Depth-to-groundwater and depth-to-product measurements were collected at all facility monitoring wells, recovery wells, observation wells, and collection wells in April and August 2019. Additional fluid measurements were collected at the sump wells periodically throughout the year to monitor fluid levels along the north side of the facility. The fluid pumping wells were turned off and the groundwater was allowed to stabilize for a minimum of 48-hours prior to the collection of fluid levels within the Bloomfield Terminal during both the April and August sampling events. Figure 2 shows the location of the wells within the facility.

Using the fluid level measurements collected in April and August 2019, groundwater potentiometric surface elevations were calculated. The groundwater elevation data was used to develop groundwater potentiometric surface maps, which show the general direction of groundwater flow within the facility. Table 1 provides a summary of the fluid level measurements collected in 2019. Figure 4 and Figure 5 represent the groundwater contours

developed from data collected in April 2019 and August 2019, respectively. The groundwater potentiometric surface contours show that groundwater generally flows in a northwest direction. A discussion of the SPH data collected is provided in Section 3.2 of this report.

3.1.2 Groundwater Field Measurements

Prior to collecting groundwater samples, each well was purged of a minimum of three well volumes using a disposable bailer. Groundwater field parameters (temperature, pH, conductivity, dissolved oxygen (DO), oxidation-reduction potential (ORP), and total dissolved solids (TDS)) were collected every two gallons or after purging one well volume, whichever was less. The total volume purged at each well was determined once the pH, temperature, and conductivity field parameters stabilized to within 10 percent for three measurements. The field parameters were collected using a YSI Professional Plus instrument. Field equipment calibration procedures performed prior to each sampling event are summarized in Section 4 of the Facility-Wide Groundwater Monitoring Plan. Table 2 provides a summary of the groundwater field parameters collected during the April 2019 and August 2019 sampling events. Field parameters were also collected from water samples collected at the East Outfalls, Seeps, and the San Juan River locations.

3.1.3 Terminal Complex Sampling

Terminal Wells

Volatile organic compounds detected above the laboratory detection limit were below their respective screening levels in samples collected in 2019, with the exception of the sample collected from MW-31 in August. The following exceedances were reported:

- 1,2,4-Trimethylbenzene was detected above the respective screening level of 56 ug/L. The detected concentration was 330 ug/L.
- 1-Methylnaphthalene was detected above the respective screening level of 11 ug/L. The detected concentration was 78 ug/L.
- 2-Methylnaphthalene was detected above the respective screening level of 36 ug/L. The detected concentration was 74 ug/L.
- Benzene was detected above the respective screening level of 5 ug/L. The detected concentration was 1,500 ug/L.
- Ethylbenzene was detected above the respective screening level of 700 ug/L. The detected concentration was 710 ug/L.
- Naphthalene was detected above the respective screening level of 1.65 ug/L. The concentration detected was 160 ug/L.
- Xylenes were detected above the respective screening level of 620 ug/L. The detected concentration was 1,200 ug/L.

General chemistry parameters detected above the laboratory detection limit were below their respective screening levels in samples collected in 2019, with the following exceptions:

- Chloride was detected above the screening level of 250 mg/L at MW-52 in August 2019 with a detected concentration of 830 mg/L.
- Nitrite and nitrate were reported as a combined concentration in one sample where the
 applicable screening level for nitrite (1.0 mg/L) and nitrate (10 mg/L), were exceeded.
 This occurred in the sample collected at MW-52 with a reported combined concentration
 of 39 mg/L.
- Sulfate was detected above the screening level of 600 mg/L at MW-44 and MW-52 in August 2019 with detected concentrations of 3,500 mg/L and 1,400 mg/L, respectively.

Total metals constituents detected above the laboratory detection limit were below their respective screening levels in samples collected in 2019, with exception of arsenic. Arsenic was detected above the respective screening level of 0.01 mg/L at MW-44. The detected concentration above the screening level was 0.017 mg/L in August 2019.

Dissolved metals constituents detected above the laboratory detection limit were below their respective screening levels in samples collected in 2019, with exception of manganese. Manganese was detected above the respective screening level of 0.2 mg/L at MW-29, MW-31, and MW-44. The detected concentrations above the screening levels ranged between 0.43 mg/L and 1.1 mg/L, with the highest concentration detected at MW-29 in August 2019.

Total petroleum hydrocarbons were detected above the laboratory detection limits in the GRO and DRO analyses in MW-31. DRO was detected above the screening level of 0.0167 mg/L at a concentration of 1.1 mg/L in August 2019. GRO was detected above the screening level of 0.0101 mg/L at a concentration of 11 mg/L in August 2019.

A summary of the analytical results for samples collected at the Terminal Complex Wells is provided in Table 3.

Cross-Gradient Wells

No volatile organic compounds were detected above the laboratory detection limits in samples collected in 2019.

General chemistry parameters detected above the laboratory detection limit were below their respective screening levels in samples collected in 2019, with the following exceptions:

 Chloride was detected above the respective screening level of 250 mg/L at MW-27 and MW-32 at concentrations of 960 mg/L and 740 mg/L, respectively, in August 2019.

- Nitrite and nitrate were reported as a combined concentration in two samples where the
 applicable screening level for nitrite (1.0 mg/L), was exceeded. This occurred in the
 samples collected at MW-13 and MW-32 with a reported combined concentrations of 1.8
 mg/L and 37 mg/L, respectively.
- Nitrate exceeded the screening level of 10 mg/L in one sample collect at MW-32 in August 2019 with a reported concentration of 37 mg/L.
- Sulfate was detected above the respective screening level of 600 mg/L at MW-13, MW-27, and MW-32. The detected concentrations ranged between 1,100 mg/L and 2,900 mg/L, with the highest concentration detected at MW-27 in August 2019.

There were no total metals constituents detected above their respective screening levels in samples collected in 2019.

Dissolved metals constituents detected above the laboratory detection limit were below their respective screening levels in samples collected in 2019, with the following exceptions:

- Manganese was detected above the respective screening level of 0.2 mg/L at MW-13 and MW-27. The detected concentrations were 1.5 mg/L and 1.8 mg/L, respectively; and
- Iron was detected above the respective screening level of 1 mg/L at MW-27 in August 2019 with a reported concentration of 1.1 mg/L.

Total petroleum hydrocarbons were detected in one sample collected at MW-27 for the DRO fraction at a concentration of 0.23 mg/L vs. the screening level of 0.0167 mg/L.

A summary of the analytical results for samples collected at the Cross-Gradient Wells is provided in Table 4.

Downgradient Wells

Volatile organic compounds detected above the laboratory detection limit were below their respective screening levels in samples collected in 2019, with the following exceptions:

- 1,2,4-Trimethylbenzene was detected above the screening level of 56 ug/L at MW-11 at a concentration of 110 ug/L;
- 1-Methylnaphthalene was detected above the respective screening level of 11 ug/L at MW-11 with a concentration of 18 ug/L in August 2019;
- Benzene was detected in samples collected at MW-11 at 8 ug/L, which exceeds the screening level of 5 ug/L; and
- Naphthalene was detected above the respective screening level of 1.65 ug/L at MW-11.
 The detected concentration was 99 ug/L.

Semi-volatile organic compounds detected above the laboratory detection limit were below their respective screening levels in samples collected in 2019 with the exception of the concentration of 1-methylnaphthalene in MW-11. The detected concentration was 34 ug/L which exceeded the screening level of 11 ug/L.

General chemistry parameters detected above the laboratory detection limit were below their respective screening levels in samples collected in 2019, with the exception of the sulfate concentration in MW-37. The detected concentration was 1,200 mg/L in August 2019 which exceeds the screening level of 600 mg/L.

Total metals constituents detected above the laboratory detection limit were below their respective screening levels in samples collected in 2019, with the following exceptions:

- Arsenic was detected above the screening level of 0.01 mg/L at MW-35 (0.016 mg/L);
 and
- Chromium was detected above the screening level of 0.05 mg/L at MW-12 (0.31 mg/L).

Dissolved metals constituents detected above the laboratory detection limit were below their respective screening levels in samples collected in 2019, with the following exceptions:

- Arsenic was detected above the screening level of 0.01 mg/L at MW-34 (0.027 mg/L) and MW-35 (0.037 mg/L);
- Barium was detected above the screening level of 1.0 mg/L at MW-35 (1.1 mg/L);
- Iron was detected above the respective screening level of 1.0 mg/L at MW-11 (6.5 mg/L), MW-34 (2.5 mg/L), and MW-35 (1.9 mg/L); and
- Manganese was detected above the respective screening level of 0.2 mg/L at MW-11 MW-34, MW-35, MW-37, and MW-38. The detected concentrations above the screening level ranged between 2.0 mg/L and 3.6 mg/L, with the highest concentration detected at MW-34 in August 2019.

Total petroleum hydrocarbons were detected in the DRO and GRO fractions. The DRO fraction was detected at concentrations above the screening level of 0.0167 mg/L in the samples from MW-11, MW-35, and MW-38. The concentrations reported were 0.52 mg/L (MW-11), 0.26 mg/L (MW-35) and 0.43 mg/L (MW-38). The GRO fraction was detected at concentrations above the screening level of 0.0101 mg/L in the samples from MW-11, MW-35 and MW-38. The concentrations reported were 2.4 mg/L (MW-11), 0.35 mg/L (MW-35), and 0.052 mg/L (MW-38).

A summary of the analytical results for samples collected at the Downgradient Wells is provided in Table 5.

RCRA Wells

Volatile organic compounds detected above the laboratory detection limit were below their respective screening levels in samples collected in August 2019, with the following exceptions:

- 1,2-Dichloroethane was detected above the respective screening level of 1.71 ug/L at MW-59 with a concentration of 10 ug/L;
- Benzene was detected above the respective screening level of 5 ug/L at MW-59 with a concentration of 7.5 ug/L; and
- MTBE was detected above the respective screening level of 100 ug/L at MW-59 with a concentration of 830 ug/L.

General chemistry parameters detected above the laboratory detection limit were below their respective screening levels in samples collected in August 2019, with the following exceptions:

- Chloride was detected above the respective screening level of 250 mg/L at MW-53, MW-64, and MW-70. The detected concentrations above the screening level ranged between 340 mg/L and 920 mg/L. The highest concentration was detected at MW-53;
- Nitrite was detected above the respective screening level of 1 mg/L at MW-53, MW-63, MW-64, MW-67, and MW-68, with concentrations ranging from 3.8 mg/L to 66 mg/L. The highest concentration was detected at MW-63;
- Nitrate was detected above the respective screening level of 10 mg/L at MW-53, MW-63, and MW-64, with concentrations ranging from 14 mg/L to 66 mg/L. The highest concentration was detected at MW-63; and
- Sulfate was detected above the respective screening level of 600 mg/L at MW-53, MW-62, MW-63, MW-64, and MW-70. The detected concentrations ranged between 960 mg/L and 4,000 mg/L, with the highest concentration detected at MW-62.

None of the total metals analyses indicated concentrations of constituents detected above their respective screening levels in samples collected in August 2019.

Dissolved metals constituents detected above the laboratory detection limit were below their respective screening levels in samples collected in August 2019, with the following exceptions:

- Arsenic was detected above the screening level of 0.01 mg/L in groundwater sample collected at MW-59 (0.027 mg/L);
- Iron was detected above the respective screening level of 1.0 mg/L at MW-59 (7.6 mg/L) and MW-70 (5.3 mg/L); and
- Manganese was detected above the respective screening level of 0.2 mg/L at MW-53, MW-59, MW-62, MW-63, and MW-70. The detected concentrations ranged between 0.30 mg/L and 1.6 mg/L, with the highest concentration detected at MW-70.

Total petroleum hydrocarbons were below the laboratory detection limit in the DRO and GRO fractions except for the sample from MW-59. The DRO concentration exceeded the screening level of 0.0167 mg/L in groundwater sample collected at MW-59 (0.31 mg/L). The GRO concentration exceeded the screening level of 0.0101 mg/L in groundwater sample collected at MW-59 (1.2 mg/L).

A summary of the analytical results for samples collected at the RCRA Wells in August 2019 is provided in Table 6.

3.1.4 North Boundary Barrier Sampling

Collection Wells

No volatile organic compounds were detected above their respective screening levels in samples collected in 2019. Total petroleum hydrocarbons were detected above the laboratory detection limit in the GRO and DRO fractions. The DRO concentrations reported in the following samples exceeded the screening level of 0.0167 mg/L:

- CW 0+60 1.7 mg/L April 2019; and
- CW 0+60 0.70 mg/L August 2019.

The GRO concentrations reported in the following samples exceeded the screening level of 0.0101 mg/L:

- CW 0+60 3.1 mg/L April 2019; and
- CW 25+95 0.36 mg/L April 2019.

A summary of the analytical results for samples collected at the collection wells in 2019 is provided in Table 7.

Observation Wells

Volatile organic compounds detected above the laboratory detection limit were below their respective screening levels in samples collected in 2019 with the exception of the April 2019 sample from OW 19+50. The MTBE concentration (0.130 mg/L) in the sample exceeded the screening level of 0.100 mg/L.

The DRO concentrations reported in the following samples exceeded the screening level of 0.0167 mg/L:

- OW 8+10 0.44 mg/L April 2019; and
- OW 19+50 0.19 mg/L August 2019.

The GRO concentrations reported in the following samples exceeded the screening level of 0.0101 mg/L.

- OW 19+50 0.077 mg/L April 2019;
- OW 23+90 0.027 mg/L August 2019;
- OW 25+70 0.12 mg/L April 2019; and
- OW 25+70 0.052 mg/L August 2019.

A summary of the analytical results for samples collected at the collection wells in 2019 is provided in Table 7.

3.1.5 San Juan River Bluff Sampling

Outfalls

Samples were collected from East Outfall #2 and East Outfall #3 in April and August 2019. A summary of the analytical results for samples collected at East Outfall #2 and East Outfall #3 in 2019 is provided in Table 8.

Volatile organic compounds were not detected in samples collected in 2019. General chemistry parameters detected above the laboratory detection limit were below their respective screening levels in samples collected in 2019 with the exception of nitrite concentrations. The nitrite concentrations reported in the following samples exceeded the screening level of 1 mg/L:

- East Outfall #2 1.5 mg/L August 2019; and
- East Outfall #3 1.6 mg/L August 2019.

For the total metals analyses, none of the metals were detected at a concentration above the screening levels in April and August 2019. All dissolved metals constituents detected above the laboratory detection limit were below their respective screening levels in samples collected in April and August 2019.

Seeps

The seep locations were dry in April and August 2019 and were therefore not sampled. A summary of the analytical results for samples previously collected at the seeps is provided in Table 9.

3.1.6 San Juan River Terrace Sampling

Sample locations related to the bioventing system are discussed in a separate report, and therefore are not included in this submittal. However, surface water samples were collected at four locations along the San Juan River in 2019. Samples were collected in April 2019 and August 2019 upstream of the Terminal, north of MW-46, north of MW-45, and downstream of the Terminal. A summary of the analytical results for samples is provided in Table 10.

Volatile organic compounds were not detected above laboratory detection limits in any of the samples for 2019. Similarly, Total Petroleum Hydrocarbons were not detected above laboratory detection limits in surface water samples collected for 2019. General chemistry parameters detected above the laboratory detection limits were below their respective screening levels in samples collected in 2019.

Total and dissolved metal constituents detected above the laboratory detection limits were below their respective screening levels in samples collected in 2019. Figure 3 shows the location of the San Juan River samples in relation to the Bloomfield Terminal.

3.1.7 Outfall and Seep Inspections

Weekly visual inspections of Seep 1, Seep 2, Seep 3, and Seep 5 and along the San Juan River Bluff, including the East Fork area, were conducted in 2019. Inspections of the draws north of the barrier wall and analysis of samples of water collected in the seeps indicate that the barrier wall is preventing migration of contaminated groundwater toward the San Juan River.

Visual inspection of the East Fork area indicates that the flow rate at this seep location has decreased to less than 1 gallon/minute. The flow rate at this location does not appear to be impacted by the operation of the Hammond Ditch. Figure 3 shows the location of the outfalls and seeps in relation to the Bloomfield Terminal.

3.2 Separate-Phase Hydrocarbons

Field measurements collected in April and August 2019 were also used to determine product thickness in areas where SPH was detected. In April 2019, SPH was identified in 17 wells. The product thickness detected ranged between 0.01 feet and 0.47 feet, with the most product detected at monitor well MW-58. In August 2019, SPH was identified in 16 wells. The product thickness ranged between 0.02 feet and 0.70 feet, with the most product detected at monitor well MW-77. Figure 6 and Figure 7 show a summary of the product thickness detected in April 2019 and August 2019, respectively.

Product had been detected in the groundwater prior to suspension of refining operations in November 2009. Review of the past 10 years of data collected shows SPH to be present in four general areas of the facility; the Terminals Area, the Tank Farm Area, the former Refinery Process Area, and the North Boundary Barrier Area. The following is a brief summary of the SPH trends observed as reported each year. A review of the historic SPH measurements collected are included in the Facility-Wide Groundwater Monitoring Plan dated December 2007 and in subsequent Annual Groundwater Remediation and Monitoring Reports submitted in April of each year.

Terminals Area

The area historically referred to as the "Terminals Area" is located south of County Road 4990. Primary operations in this area include product loading and unloading, crude unloading, and product storage. At the Terminal Area, SPH has been localized to two wells (MW-61 and MW-66). These wells were installed in 2009 as part of the on-going RCRA investigation activities. In the most recent measurement in August 2019, 0.31 feet of SPH was observed in MW-61. The SPH thickness at MW-61 has fluctuated between 0.21 feet and 0.98 feet. At MW-66, located west of Tank 45, the amount of SPH has fluctuated between 0.0 feet and 0.32 feet, with 0.06 feet measured most recently in August 2019. During the August 2019 sampling activities, a sheen was observed on the purged water for MW-65. This is the first occurrence of a sheen being observed in MW-65. The well was not sampled.

Tank Farm Area

The Tank Farm Area is located in the eastern portion of the facility, north of County Road 4990. This area is equipped with four total fluids recovery wells located along the center dike area

(RW-14, RW-15, RW-16, and RW-17). Recovery wells RW-14 and RW-16 are equipped with electrical submersible pumps, while RW-15 and RW-17 are equipped with dedicated pneumatic pumps that operate on a timer. All fluids pumped from these wells are routed to the on-site WWTP for product recovery and treatment. In recovery well RW-14, SPH was detected during the April 2019 gauging event (0.29 feet) and August 2019 gauging event (0.07 feet). No SPH was detected in RW-15, RW-16, and RW-17 during the April and August 2019 gauging events.

Former Refinery Process Area

In 2005, a 2,700-foot long bentonite slurry wall was installed along the western and northern boundary of the former process area. This north boundary barrier provides hydraulic control for product and groundwater that exists at the Bloomfield facility. Several monitoring wells located within the vicinity of the former refinery process area have shown detectable amounts of SPH prior to the suspension of refinery operations in November 2009. Total fluids recovery wells, as well as the French drain fluids collection system located below the Hammond Ditch in this area, provide hydraulic relief and enhance product recovery efforts.

Two wells within the warehouse area have shown detectable SPH. Monitoring well MW-54, which was installed in 2008, has shown decreasing levels of SPH since 2010. In August 2016, MW-54 contained only approximately 0.01 feet of SPH and no SPH was measured in 2019. Recovery well RW-1 is an active total fluids recovery well. This well operates at a constant flowrate of approximately 2 gpm. The amount of SPH at RW-1 has fluctuated since 2008, with no SPH measured during 2019.

Two active recovery wells (RW-2 and RW-3) are located along the southern property boundary and are equipped with dedicated pneumatic total fluids pumps. SPH was detected in RW-2 during the April 2019 gauging event (0.15 feet) and during the August 2019 gauging event (0.21 feet). SPH has only been detected in RW-2 during one gauging event in the past. In August 2014 the SPH thickness was recorded as 0.10 feet. RW-3 has shown traces of SPH prior to returning to operation in 2012, with SPH detected at 0.05 feet or less. No measurable SPH was detected in RW-3 in 2019.

Monitoring well MW-41, located adjacent to the former crude process unit, has shown fluctuating levels of SPH over the years. The range of SPH detected has been between 0.0 feet and 1.18 feet since 2007. SPH was not detected during the April 2019 gauging event. In

August 2019, 0.02 feet of SPH was measured in MW-41. The SPH thickness measurements in 2019 were less than the 2018 measurements.

The SPH level at RW-42, an active recovery well located upgradient of MW-41, has also fluctuated over time. The amount of SPH has ranged between 0.00 feet and 0.90 feet since 2007. SPH has not been detected in RW-42 since August 2015.

In the area near the WWTP and north of the former process units there are several wells in which SPH has been detected over the years. It is expected to see SPH levels fluctuate in this area due to the numerous active recovery wells, as well as, the existence of the north boundary barrier providing hydraulic control for all groundwater beneath the former process areas. To further enhance the product recovery efforts in this area, work has been done to equip five existing monitoring wells with dedicated pneumatic pumps for total fluids recovery. Monitoring wells MW-55, MW-56, MW-57, MW-58, and MW-20 have been converted to recovery wells. These wells are located in the area where SPH is currently most prevalent. The wells have been operational as of 2013 and continued to operate through 2019. In MW-20, the SPH thickness measurements in 2019 were less than the 2018 SPH measurements.

When compared to the 2018 fluid level measurements, the measurements collected in 2019 indicated a reduction in the SPH thickness in the wells MW-72, RW-19, and RW-28.

North Boundary Barrier Area

In 2005, a 2,700-foot long bentonite slurry wall was installed along the western and northern boundary of the former process area. This north boundary barrier provides hydraulic control for product and groundwater within the Bloomfield facility. Monitoring wells and observation wells located along the river-side of the slurry wall have shown intermittent detections of SPH. The greatest of which was 0.08 feet in April 2014 in MW-45; however, no SPH has been detected in excess of 0.01 feet since that time. The amount of groundwater detected in these wells is significantly less than the wells located on the facility-side of the wall, giving proof that the hydraulic barrier is effective. The intermittent detections of SPH are believed to be the residual effect of SPH in the area that existed prior to installation of the slurry wall.

Collection well CW 11+15 is located south of monitoring well MW-45 on the south side of the barrier wall. The range of SPH detected has been between 0.0 feet and 1.95 feet since April

2014. SPH was detected during the April 2019 gauging event (0.03 feet) and in the August 2019 gauging event (0.06 feet).

Collection CW 8+45 is located west of collection well CW 11+15. SPH was detected during the April 2019 gauging event (0.03 feet) and in the August 2019 gauging event (0.11 feet). No SPH was detected in this well during gauging events from 2011 through 2018.

SPH was not detected in the Observations Wells during the April 2019 and August 2019 gauging event. A hydrocarbon sheen was observed on some of the wells during the well purging activities prior to sampling. These wells include:

- Semi-Annual Event OW 0+60, OW 1+50, OW 3+85, OW 11+15, OW 16+60, and OW 23+10; and
- Annual Event OW 3+85, OW 11+15, OW 16+60, and OW 23+10.

3.3 Total Fluids Recovery Systems

3.3.1 Groundwater Recovery System

In 2019, 19 wells operated as total fluids recovery wells. The wells used for total fluids recovery were RW-1, RW-2, RW-3, RW-9, RW-14, RW-15, RW-16, RW-17, RW-19, MW-20, RW-22, RW-23, RW-28, RW-42, MW-55, MW-56, MW-57, MW-58, and MW-69. In the past, Marathon estimated the total gallons pumped (SPH and groundwater) from the recovery wells on an annual basis. The recovery wells are not equipped with individual flow meters. Most wells are equipped with pneumatic pumps that run on a timer system. Based on the timer setting and field verified flow rates, the total gallons pumped per well over time was calculated. The wells are routinely checked to make sure they are in service and to make any repairs, as necessary, to return wells to service. Because it is not possible to know with certainty how long an individual pump may have been out of service between inspections, Marathon has not attempted to estimate the annual recovery volumes for the wells.

3.3.2 North Boundary Barrier Wall Collection System

Depth-to-groundwater measurements collected in April 2019 and August 2019 indicate that the barrier wall continues to provide a hydraulic barrier for groundwater below the facility. Based on the data collected in 2019, six of the fourteen observation wells contain little to no fluid (i.e., measuring less than 0.5 ft of fluid in the well at any one time). Of the 13 well pairs (i.e.,

observation and collection wells on opposite sides of the slurry wall) where water is present in the observation wells, the average difference in water level elevations across the slurry wall is 3.55 feet. This difference in water level elevations immediately across the slurry wall is further evidence of its continued effectiveness.

Table 1 provides a summary of the fluids level measurements collected from the wells along the north boundary barrier wall.

3.3.3 Hammond Ditch Recovery System

The Hammond Ditch Recovery System serves as a hydraulic relief system for groundwater accumulating within the western portion of the Terminal on the up-gradient side of the slurry wall. All water recovered through the Hammond Ditch French drain west of the pipeline easement discharges to Tank 37, which is then transferred to the API separator for product recovery. The location of Tank 37 is shown on Figures 2 and 3. Terminal Operators inspect the operation of recovery system and Tank 37 daily and record the amount of water recovered in the tank using a flow meter located on the discharge end of the Tank 37 transfer pump. In 2019, the total volume of fluids recovered at Tank 37 was approximately 15,882 barrels. The flow meter was not working in January 2019 and was replaced on February 7, 2019. The volume of fluids recovered at Tank 37 in 2018 was 20,393 barrels.

3.3.4 East Outfall Recovery System

Water recovered through the Hammond Ditch French drain east of the pipeline easement discharges through three outfalls (i.e., Outfall 1, Outfall 2 and Outfall 3). Total fluids from Outfall 1 is recovered via Tank 38 and transferred to the WWTS for treatment prior to disposal through the on-site injection well. Figures 2 and 3 show the location of Tank 38.

Tank 38 piping is equipped with a flow meter to measure the total gallons transferred to the WWTP. In 2019, the total fluid volume recovered at Tank 38 was approximately 196,862 barrels. The volume of fluids recovered at Tank 38 in 2018 was 106,349 barrels.

3.4 Waste Disposal

Western Refining indefinitely suspended refining operations at the Bloomfield Facility on November 23, 2009. The crude unloading and product loading racks, storage tanks and other supporting equipment remain in operation. Recovered water from on-site remediation activities

and facility operations is treated through the on-site WWTS. Treated water is then disposed of through an on-site Class I non-hazardous injection well and/or two on-site evaporations ponds. The monthly and annual cumulative volumes of water discharged to the evaporation ponds are summarized in Table 11.

Significantly less waste is routinely generated since the suspension of refining operations in November 2009. The on-site landfill is no longer operational, and therefore all operational waste generated is properly characterized and disposed of off-site. A total of 20,880 pounds of waste were disposed off-site in 2019. A summary of the hazardous waste associated with terminal operations disposal activities is provided in Table 12.

SECTION 4.0 CONCLUSIONS

The following is a summary of conclusions based on monitoring and inspection data collected in 2019.

4.1 Groundwater Monitoring

Marathon has in-place a Facility-Wide Groundwater Monitoring Program that is updated annually as required under the 2007 Consent Order issued by NMED-HWB. Updates to this program include incorporation of additional wells installed as part of on-going completed RCRA Investigation activities. Such updates are proposed for agency approval in June of each year. Screening levels used to evaluate the groundwater condition at the Bloomfield Terminal are reflective of the same conservative screening levels currently used for evaluation of on-going RCRA Investigation activities. Tables 3 through 10 include the applicable screening level for each respective analyte. Sample results included in the analytical summary tables that exceed the respective screening levels are highlighted in yellow and all detected results are bolded. Figure 8 and Figure 9 shows a summary of the BTEX and MTBE concentrations detected sitewide during the April 2019 and August 2019 sampling events, respectively. Figures 10 shows the results for chloride, sulfate, nitrate, and total dissolved solids (TDS) for April 2019. Figures 11 through 15 show the analytical results for naphthalene, chloride, sulfate, nitrate, and TDS for August 2019.

Depth-to-groundwater and depth-to-product measurements were collected at all facility monitoring wells, recovery wells, observation wells, collection wells and sump wells in 2019. Groundwater elevation contours show that groundwater flows in the general northwest direction, with the groundwater under the process areas flowing towards the north boundary barrier wall and Hammond Ditch Collection System.

When compared to the 2018 fluid level measurements, the measurements collected in 2019 indicated a reduction in the SPH thickness in the wells MW-20, MW-41, MW-72, RW-19, and RW-28.

Groundwater Quality

Based on the analytical results for groundwater monitoring collected in 2019, no major changes were observed in the groundwater concentrations. The following constituents were detected at concentrations in groundwater above their respective most conservative screening levels.

- Organic Compounds
 - 1,2,4-Trimethylbenzene;
 - 1,2-Dichloroethane;
 - 1-Methylnaphthalene;
 - 2-Methylnaphthalene;
 - Naphthalene;
 - o Benzene;
 - Ethylbenzene;
 - MTBE;
 - Xylenes;
 - o Diesel Range Organics; and
 - Gasoline Range Organics.
- General Chemistry
 - o Chloride;
 - Nitrate;
 - Nitrite; and
 - Sulfate.
- Total Metals;
 - o Arsenic; and
 - o Chromium.
- Dissolved Metals
 - o Arsenic;
 - o Barium;
 - o Iron; and
 - Manganese.

An investigation of naturally occurring (i.e., background) concentrations of constituents in groundwater was initiated in January 2012, with the last submission to NMED in January 2015. As of February 2020, NMED has not yet responded to the January 2015 *Investigation Report Background Concentrations*, thus background concentrations are not yet available for comparison to detected results.

4.2 Outfall and Seep Inspections

Weekly visual inspections of the seeps and along the San Juan River Bluff, which includes the East Fork Area, were conducted in 2019. No visual sheens or odors were identified during the inspections. Fluid in the seeps is most often prevalent during the spring, corresponding with the times of higher precipitation. None of the seeps had sufficient discharge to allow for sample collection in April or August 2019.

4.3 Total Fluids Recovery Systems

The Bloomfield Terminal operates and monitors several fluid recovery systems within the facility, which include:

- Groundwater Recovery System using recovery wells within the Terminal Complex;
- North Boundary Barrier Collection System;
- Hammond Ditch Recovery System;
- River Terrace Remediation System; and
- East Outfall Recovery System.

All fluids recovered from these systems, with the exception of the effluent from the River Terrace Remediation System, are pumped to the on-site WWTS for treatment prior to disposal through the on-site injection well or evaporation ponds. Water from the River Terrace is treated separately and is re-used as plant water for facility operations.

SECTION 5.0 REFERENCES

- Groundwater Technology, Inc., 1994, RCRA Facility Investigation/Corrective Measures Study Report Bloomfield Refining Company #50 County Road 4990 Bloomfield, New Mexico.
- NMED, 2007, State of New Mexico Environment Department v. San Juan Refining Company and Giant Industries, Inc.; Order July 27, 2007.
- NMOCD, 2017, New Mexico Oil Conservation Division, Discharge Permit Renewal (GW-001) Bloomfield Refinery, June 8, 2017.

TABLES

| Well ID | Date | Measuring Point | Total Well Depth | Depth To Product | Depth To Water | Corrected Groundwater | SPH Thickness |
|----------|----------|------------------------|---------------------|---------------------|-------------------|--------------------------|------------------|
| | 20.00 | Elevation (ft amsl) | (ft below TOC) | (ft below TOC) | (ft below TOC) | Elevation (ft amsl) | (ft) |
| | 08/19/19 | 5519.21 | 21.41 | NPP | 17.02 | 5502.19 | NPP |
| | 04/02/19 | 5519.21 | 21.34 | NPP | 17.40 | 5501.81 | NPP |
| | 08/01/18 | 5519.21 | 21.40 | NPP | 18.16 | 5501.05 | NPP |
| | 04/16/18 | 5519.21 | 21.41 | NPP | 17.68 | 5501.53 | NPP |
| MW-01 | 08/22/17 | 5519.21 | 21.41 | NPP | 17.35 | 5501.86 | NPP |
| 10100-01 | 04/18/17 | 5519.21 | 21.56 | NPP | 17.62 | 5501.59 | NPP |
| | 08/15/16 | 5519.21 | 21.56 | NPP | 16.83 | 5502.38 | NPP |
| | 04/15/16 | 5519.21 | 21.56 | NPP | 17.23 | 5501.98 | NPP |
| | 08/18/15 | 5519.21 | 21.56 | NPP | 16.95 | 5502.26 | NPP |
| | 04/20/15 | 5519.21 | 21.56 | NPP | 16.95 | 5502.26 | NPP |
| | 08/19/19 | 5539.27 | 36.57 | NPP | NWP | NWP | NPP |
| | 04/01/19 | 5539.27 | 36.44 | NPP | NWP | NWP | NPP |
| | 08/01/18 | 5539.27 | 36.50 | NPP | 36.50 | 5502.77 | NPP |
| | 04/16/18 | 5539.27 | 36.50 | NPP | 36.50 | 5502.77 | NPP |
| MW-03 | 08/22/17 | 5539.27 | 36.46 | NPP | 36.46 | 5502.81 | NPP |
| 10100-05 | 04/18/17 | 5539.27 | 36.75 | NPP | NWP | NWP | NPP |
| | 08/15/16 | 5539.27 | 36.75 | NPP | 36.29 | 5502.98 | NPP |
| | 04/15/16 | 5539.27 | 36.75 | NPP | 36.33 | 5502.94 | NPP |
| | 08/18/15 | 5539.27 | 36.75 | NPP | 36.13 | 5503.14 | NPP |
| | 04/27/15 | 5539.27 | 36.75 | NPP | 36.25 | 5503.02 | NPP |
| | 08/20/19 | 5527.78 | 29.78 | NPP | 27.42 | 5500.36 | NPP |
| | 04/01/19 | 5527.78 | 29.78 | NPP | 27.28 | 5500.50 | NPP |
| | 08/01/18 | 5527.78 | 29.77 | NPP | 27.47 | 5500.31 | NPP |
| | 04/16/18 | 5527.78 | 29.76 | NPP | 27.31 | 5500.47 | NPP |
| MW-04 | 08/22/17 | 5527.78 | 29.82 | NPP | 27.10 | 5500.68 | NPP |
| | 04/17/17 | 5527.78 | 30.48 | NPP | 27.85 | 5499.93 | NPP |
| | 08/15/16 | 5527.78 | 30.48 | NPP | 27.21 | 5500.57 | NPP |
| | 04/15/16 | 5527.78 | 30.48 | NPP | 27.10 | 5500.68 | NPP |
| | 08/25/15 | 5527.78 | 30.48 | NPP | 27.94 | 5499.84 | NPP |
| | 04/27/15 | 5527.78 | 30.48 | NPP | 27.12 | 5500.66 | NPP |
| | 08/19/19 | 5548.56 | 31.16 | NPP | NWP | NWP | NPP |
| | 04/02/19 | 5548.56 | 31.12 | NPP | NWP | NWP | NPP |
| | 08/02/18 | 5548.56 | 31.15 | NPP | NWP | NWP | NPP |
| | 04/16/18 | 5548.56 | 31.15 | NPP | NWP | NWP | NPP |
| MW-05 | 08/22/17 | 5548.56 | 37.20 | NPP | NWP | NWP | NPP |
| | 04/18/17 | 5548.56 | 37.20 | NPP | NWP | NWP | NPP |
| | 08/16/16 | 5548.56 | 37.20 | NPP | NWP | NWP | NPP |
| | 04/18/16 | 5548.56 | 37.20 | NPP | NWP | NWP | NPP |
| | 08/13/15 | 5548.56 | 37.20 | NPP | NWP | NWP | NPP |
| | 04/27/15 | 5548.56 | 37.20 | NPP | NWP | NWP | NPP |
| | 08/19/19 | 5554.61 | 47.49 | NPP | NWP | NWP | NPP |
| | 04/02/19 | 5554.61 | 47.39 | NPP | NWP | NWP | NPP |
| | 08/02/18 | 5554.61 5554.61 | 47.45 47.45 | NPP | NWP | NWP | NPP NPP |
| | 04/16/18 | | 47.45 | NPP | NWP | NWP | |
| MW-06 | 08/22/17 | 5554.61 | 48.00 | NPP | NWP | NWP | NPP |
| | 04/18/17 | 5554.61 5554.61 | 48.00 | NPP NPP | NWP | NWP | NPP NPP |
| | 08/16/16 | 5554.61 | 48.00 | NPP | NWP NWP | NWP NWP | NPP |
| | 08/13/15 | 5554.61 | 48.00 | NPP | NWP | NWP | NPP |
| | | 5554.61 | 48.00 | | | | |
| | 04/27/15 | 5554.61 | 48.00 | NPP | NWP | NWP | NPP |

| Well ID | Date | Measuring Point | Total Well Depth | Depth To Product | Depth To Water | Corrected Groundwater | SPH Thickness |
|----------|----------|------------------------|---------------------|---------------------|-------------------|--------------------------|------------------|
| Well ID | Dute | Elevation (ft amsl) | (ft below TOC) | (ft below TOC) | (ft below TOC) | Elevation (ft amsl) | (ft) |
| | 08/20/19 | 5527.66 | 62.08 | NPP | 28.03 | 5499.63 | NPP |
| | 04/01/19 | 5527.66 | 62.03 | NPP | 27.65 | 5500.01 | NPP |
| | 08/01/18 | 5527.66 | 62.09 | NPP | 27.79 | 5499.87 | NPP |
| | 04/16/18 | 5527.66 | 62.08 | NPP | 27.40 | 5500.26 | NPP |
| N/N/ 07 | 08/22/17 | 5527.66 | 62.05 | NPP | 27.62 | 5500.04 | NPP |
| MW-07 | 04/17/17 | 5527.66 | 62.61 | NPP | 27.28 | 5500.38 | NPP |
| | 08/15/16 | 5527.66 | 62.61 | NPP | 27.74 | 5499.92 | NPP |
| | 04/15/16 | 5527.66 | 62.61 | NPP | 27.31 | 5500.35 | NPP |
| | 08/13/15 | 5527.66 | 62.61 | NPP | 27.75 | 5499.91 | NPP |
| | 04/27/15 | 5527.66 | 62.61 | NPP | 27.43 | 5500.23 | NPP |
| | 08/19/19 | 5534.58 | 34.92 | NPP | 31.53 | 5503.05 | NPP |
| | 04/01/19 | 5534.58 | 34.72 | NPP | 32.07 | 5502.51 | NPP |
| | 08/01/18 | 5534.58 | 34.73 | NPP | 32.40 | 5502.18 | NPP |
| | 04/16/18 | 5534.58 | 34.78 | NPP | 32.22 | 5502.36 | NPP |
| MW-08 | 08/22/17 | 5534.58 | 34.75 | NPP | 31.92 | 5502.66 | NPP |
| 10100-00 | 04/18/17 | 5534.58 | 35.93 | NPP | 31.92 | 5502.66 | NPP |
| | 08/16/16 | 5534.58 | 35.93 | NPP | 34.75 | 5499.83 | NPP |
| | 04/15/16 | 5534.58 | 35.93 | NPP | 31.62 | 5502.96 | NPP |
| | 08/13/15 | 5534.58 | 35.93 | NPP | 31.42 | 5503.16 | NPP |
| | 04/27/15 | 5534.58 | 35.93 | NPP | 31.54 | 5503.04 | NPP |
| | 08/19/19 | 5510.31 | 21.82 | NPP | 12.47 | 5497.84 | NPP |
| | 04/02/19 | 5510.31 | 21.77 | NPP | 11.59 | 5498.72 | NPP |
| | 08/02/18 | 5510.31 | 21.80 | NPP | 12.28 | 5498.03 | NPP |
| | 04/16/18 | 5510.31 | 21.81 | NPP | 12.12 | 5498.19 | NPP |
| MW-11 | 08/23/17 | 5510.31 | 22.32 | NPP | 12.11 | 5498.20 | NPP |
| IVIVV | 04/18/17 | 5510.31 | 22.94 | NPP | 11.49 | 5498.82 | NPP |
| | 08/16/16 | 5510.31 | 22.94 | NPP | 11.11 | 5499.20 | NPP |
| | 04/18/16 | 5510.31 | 22.94 | NPP | 11.89 | 5498.42 | NPP |
| | 08/19/15 | 5510.31 | 22.94 | NPP | 11.25 | 5499.06 | NPP |
| | 04/20/15 | 5510.31 | 22.94 | NPP | 11.30 | 5499.01 | NPP |
| | 08/19/19 | 5501.61 | 13.45 | NPP | 10.14 | 5491.47 | NPP |
| | 04/02/19 | 5501.61 | 13.25 | NPP | 10.15 | 5491.46 | NPP |
| | 08/02/18 | 5501.61 | 13.15 | NPP | 10.30 | 5491.31 | NPP |
| | 04/16/18 | 5501.61 | 13.15 | NPP | 10.65 | 5490.96 | NPP |
| MW-12 | 08/25/17 | 5501.61 | 13.36 | NPP | 10.29 | 5491.32 | NPP |
| | 04/18/17 | 5501.61 | 14.98 | NPP | 10.04 | 5491.57 | NPP |
| | 08/16/16 | 5501.61 | 14.98 | NPP | 9.49 | 5492.12 | NPP |
| | 04/18/16 | 5501.61 | 14.98 | NPP | 10.02 | 5500.29 | NPP |
| | 08/19/15 | 5501.61 | 14.98 | NPP | 8.52 | 5501.79 | NPP |
| | 04/20/15 | 5501.61 | 14.98 | NPP | 8.55 | 5501.76 | NPP |
| | 08/19/19 | 5542.04 | 52.91 | NPP | 40.99 | 5501.05 | NPP |
| | 04/02/19 | 5542.04 | 52.77 | NPP | 40.99 | 5501.05 | NPP |
| | 08/02/18 | 5542.04 | 52.89 | NPP | 40.85 | 5501.19 | NPP |
| | 04/16/18 | 5542.04 | 52.90 | NPP | 40.75 | 5501.29 | NPP |
| MW-13 | 08/23/17 | 5542.04 | 52.85 | NPP | 40.65 | 5501.39 | NPP |
| | 04/18/17 | 5542.04 | 52.89 | NPP | 40.59 | 5501.45 | NPP |
| | 08/16/16 | 5542.04 | 52.89 | NPP | 40.67 | 5501.37 | NPP |
| | 04/18/16 | 5542.04 | 52.89 | NPP | 40.51 | 5501.53 | NPP |
| | 08/18/15 | 5542.04 | 52.89 | NPP | 40.53 | 5501.51 | NPP |
| | 04/20/15 | 5542.04 | 52.89 | NPP | 40.68 | 5501.36 | NPP |

| = | | Measuring Point | Total Well | Depth To | Depth To | Corrected Groundwater | SPH |
|----------|----------|------------------------|-------------------------|---------------------------|-------------------------|--------------------------|-------------------|
| Well ID | Date | Elevation (ft amsl) | Depth (ft below TOC) | Product (ft below TOC) | Water (ft below TOC) | Elevation (ft amsl) | Thickness (ft) |
| | 08/20/19 | 5519.90 | 27.18 | 20.67 | 20.82 | 5499.20 | 0.15 |
| | 04/01/19 | 5519.90 | 27.10 | 20.71 | 21.05 | 5499.12 | 0.34 |
| | 08/01/18 | 5519.90 | 27.11 | 20.78 | 21.32 | 5499.01 | 0.54 |
| | 04/16/18 | 5519.90 | 27.12 | 20.73 | 21.13 | 5499.09 | 0.40 |
| | 08/22/17 | 5519.90 | 27.13 | 20.65 | 20.94 | 5499.19 | 0.29 |
| MW-20 | 04/17/17 | 5519.90 | 27.13 | 20.60 | 20.87 | 5499.25 | 0.27 |
| | 08/16/16 | 5519.90 | 27.13 | 20.60 | 20.64 | 5499.29 | 0.04 |
| | 04/15/16 | 5519.90 | 27.13 | 20.60 | 21.20 | 5499.18 | 0.60 |
| | 08/13/15 | 5519.90 | 27.13 | 20.60 | 20.65 | 5499.29 | 0.05 |
| | 04/27/15 | 5519.90 | 27.13 | NPP | 20.73 | 5499.17 | NPP |
| | 08/19/19 | 5521.99 | 30.54 | NPP | 21.62 | 5500.37 | NPP |
| | 04/01/19 | 5521.99 | 30.45 | NPP | 21.70 | 5500.29 | NPP |
| | 08/01/18 | 5521.99 | 30.46 | NPP | 21.94 | 5500.05 | NPP |
| | 04/16/18 | 5521.99 | 30.46 | NPP | 21.88 | 5500.11 | NPP |
| | 08/22/17 | 5521.99 | 30.44 | NPP | 21.60 | 5500.39 | NPP |
| MW-21 | 04/18/17 | 5521.99 | 30.38 | NPP | 21.58 | 5500.41 | NPP |
| | 08/15/16 | 5521.99 | 30.38 | NPP | 21.21 | 5500.78 | NPP |
| | 04/15/16 | 5521.99 | 30.38 | NPP | 21.68 | 5500.31 | NPP |
| | 08/13/15 | 5521.99 | 30.38 | 21.32 | 21.33 | 5500.67 | 0.01 |
| | 04/27/15 | 5521.99 | 30.38 | NPP | 21.54 | 5500.45 | NPP |
| | 08/19/19 | 5533.99 | 41.31 | NPP | 33.24 | 5500.75 | NPP |
| | 04/02/19 | 5533.99 | 41.20 | NPP | 33.23 | 5500.76 | NPP |
| | 08/02/18 | 5533.99 | 41.23 | NPP | 33.18 | 5500.81 | NPP |
| | 04/16/18 | 5533.99 | 41.24 | NPP | 33.06 | 5500.93 | NPP |
| NAVA 05 | 08/23/17 | 5533.99 | 41.20 | NPP | 32.90 | 5501.09 | NPP |
| MW-25 | 04/18/17 | 5533.99 | 41.20 | NPP | 32.84 | 5501.15 | NPP |
| | 08/16/16 | 5533.99 | 41.20 | NPP | 30.01 | 5503.98 | NPP |
| | 04/18/16 | 5533.99 | 41.20 | NPP | 32.86 | 5501.13 | NPP |
| | 08/13/15 | 5533.99 | 41.20 | NPP | 32.82 | 5501.17 | NPP |
| | 04/27/15 | 5533.99 | 41.20 | NPP | 33.95 | 5500.04 | NPP |
| | 08/19/19 | 5517.88 | 25.19 | 17.90 | 17.94 | 5499.97 | 0.04 |
| | 04/02/19 | 5517.88 | 25.11 | NPP | 17.79 | 5500.09 | NPP |
| | 08/02/18 | 5517.88 | 25.12 | 17.85 | 17.88 | 5500.02 | 0.03 |
| | 04/16/18 | 5517.88 | 25.12 | 17.73 | 17.76 | 5500.14 | 0.03 |
| MW-26 | 08/23/17 | 5517.88 | 25.11 | 17.60 | 17.67 | 5500.27 | 0.07 |
| 1V1VV-ZU | 04/18/17 | 5517.88 | 25.11 | 17.45 | 17.50 | 5500.42 | 0.05 |
| | 08/16/16 | 5517.88 | 25.11 | 17.55 | 17.65 | 5500.31 | 0.10 |
| | 04/18/16 | 5517.88 | 25.11 | 17.51 | 17.65 | 5500.34 | 0.14 |
| | 08/13/15 | 5517.88 | 25.11 | 17.31 | 17.55 | 5500.52 | 0.24 |
| | 04/20/15 | 5517.88 | 25.11 | 17.48 | 17.72 | 5500.35 | 0.24 |
| | 08/19/19 | 5518.67 | 24.46 | NPP | 22.78 | 5495.89 | NPP |
| | 04/02/19 | 5518.67 | 24.31 | NPP | 22.44 | 5496.23 | NPP |
| | 08/02/18 | 5518.67 | 24.32 | NPP | 22.41 | 5496.26 | NPP |
| | 04/16/18 | 5518.67 | 24.32 | NPP | 20.88 | 5497.79 | NPP |
| MW-27 | 08/23/17 | 5518.67 | 24.21 | NPP | 19.73 | 5498.94 | NPP |
| v ∠1 | 04/18/17 | 5518.67 | 24.42 | NPP | 18.87 | 5499.80 | NPP |
| | 08/16/16 | 5518.67 | 24.42 | NPP | 19.10 | 5499.57 | NPP |
| | 04/18/16 | 5518.67 | 24.42 | NPP | 18.91 | 5499.76 | NPP |
| | 08/18/15 | 5518.67 | 24.42 | NPP | 18.62 | 5500.05 | NPP |
| | 04/20/15 | 5518.67 | 24.42 | NPP | 18.86 | 5499.81 | NPP |

| Well ID | Date | Measuring Point Elevation | Total Well Depth | Depth To Product | Depth To Water | Corrected Groundwater Elevation | SPH Thickness |
|----------|----------|---------------------------------|---------------------|---------------------|-------------------|---------------------------------------|------------------|
| | | (ft amsl) | (ft below TOC) | (ft below TOC) | (ft below TOC) | (ft amsl) | (ft) |
| | 08/19/19 | 5524.97 | 28.62 | NPP | 22.83 | 5502.14 | NPP |
| | 04/01/19 | 5524.97 | 28.58 | NPP | 23.23 | 5501.74 | NPP |
| | 08/01/18 | 5524.97 | 28.60 | NPP | 23.66 | 5501.31 | NPP |
| | 04/16/18 | 5524.97 | 28.65 | NPP | 23.45 | 5501.52 | NPP |
| MM 20 | 08/22/17 | 5524.97 | 28.69 | NPP | 23.11 | 5501.86 | NPP |
| MW-29 | 04/18/17 | 5524.97 | 28.62 | NPP | 23.23 | 5501.74 | NPP |
| | 08/15/16 | 5524.97 | 28.62 | NPP | 22.68 | 5502.29 | NPP |
| | 04/15/16 | 5524.97 | 28.62 | NPP | 23.04 | 5501.93 | NPP |
| | 08/24/15 | 5524.97 | 28.62 | NPP | 22.70 | 5502.27 | NPP |
| | 04/27/15 | 5524.97 | 28.62 | NPP | 22.83 | 5502.14 | NPP |
| | 08/19/19 | 5536.83 | 40.23 | NPP | 33.85 | 5502.98 | NPP |
| | 04/01/19 | 5536.83 | 40.00 | NPP | 34.32 | 5502.51 | NPP |
| | 08/01/18 | 5536.83 | 40.19 | NPP | 34.35 | 5502.48 | NPP |
| | 04/16/18 | 5536.83 | 40.22 | 34.29 | 34.30 | 5502.54 | 0.01 |
| MM 20 | 08/22/17 | 5536.83 | 40.12 | NPP | 33.99 | 5502.84 | NPP |
| MW-30 | 04/18/17 | 5536.83 | 40.13 | NPP | 34.07 | 5502.76 | NPP |
| | 08/15/16 | 5536.83 | 40.13 | NPP | 33.84 | 5502.99 | NPP |
| | 04/15/16 | 5536.83 | 40.13 | NPP | 33.92 | 5502.91 | NPP |
| | 08/24/15 | 5536.83 | 40.13 | NPP | 33.69 | 5503.14 | NPP |
| | 04/20/15 | 5536.83 | 40.13 | NPP | 33.82 | 5503.01 | NPP |
| | 08/19/19 | 5536.24 | 39.25 | NPP | 34.61 | 5501.63 | NPP |
| | 04/02/19 | 5536.24 | 39.17 | NPP | 34.63 | 5501.61 | NPP |
| | 08/02/18 | 5536.24 | 39.19 | NPP | 34.44 | 5501.80 | NPP |
| | 04/16/18 | 5536.24 | 39.18 | NPP | 34.30 | 5501.94 | NPP |
| NAVA 04 | 08/22/17 | 5536.24 | 39.16 | NPP | 34.20 | 5502.04 | NPP |
| MW-31 | 04/18/17 | 5536.24 | 39.16 | NPP | 34.16 | 5502.08 | NPP |
| | 08/16/16 | 5536.24 | 39.16 | NPP | 34.30 | 5501.94 | NPP |
| | 04/18/16 | 5536.24 | 39.16 | NPP | 34.13 | 5502.11 | NPP |
| | 08/24/15 | 5536.24 | 39.16 | NPP | 34.15 | 5502.09 | NPP |
| | 04/27/15 | 5536.24 | 39.16 | NPP | 34.34 | 5501.90 | NPP |
| | 08/19/19 | 5525.64 | 27.57 | NPP | 25.64 | 5500.00 | NPP |
| | 04/02/19 | 5525.64 | 27.53 | NPP | 25.61 | 5500.03 | NPP |
| | 08/02/18 | 5525.64 | 27.55 | NPP | 25.54 | 5500.10 | NPP |
| | 04/16/18 | 5525.64 | 27.53 | NPP | 25.45 | 5500.19 | NPP |
| MW-32 | 08/23/17 | 5525.64 | 27.54 | NPP | 25.30 | 5500.34 | NPP |
| 10100-32 | 04/18/17 | 5525.64 | 27.51 | NPP | 25.31 | 5500.33 | NPP |
| | 08/16/16 | 5525.64 | 27.51 | NPP | 25.37 | 5500.27 | NPP |
| | 04/18/16 | 5525.64 | 27.51 | NPP | 25.25 | 5500.39 | NPP |
| | 08/08/15 | 5525.64 | 27.51 | NPP | 25.18 | 5500.46 | NPP |
| | 04/20/15 | 5525.64 | 27.51 | NPP | 25.30 | 5500.34 | NPP |
| | 08/19/19 | 5521.79 | 25.55 | NPP | 24.01 | 5497.78 | NPP |
| | 04/02/19 | 5521.79 | 25.50 | NPP | 23.59 | 5498.20 | NPP |
| | 08/02/18 | 5521.79 | 25.51 | NPP | 24.38 | 5497.41 | NPP |
| | 04/16/18 | 5521.79 | 25.51 | NPP | 22.78 | 5499.01 | NPP |
| MW-33 | 08/23/17 | 5521.79 | 25.50 | NPP | 22.56 | 5499.23 | NPP |
| 10100-33 | 04/18/17 | 5521.79 | 25.51 | NPP | 22.50 | 5499.29 | NPP |
| | 08/16/16 | 5521.79 | 25.51 | NPP | 22.78 | 5499.01 | NPP |
| | 04/18/16 | 5521.79 | 25.51 | NPP | 22.54 | 5499.25 | NPP |
| | 08/18/15 | 5521.79 | 25.51 | NPP | 22.39 | 5499.40 | NPP |
| | 04/20/15 | 5521.79 | 25.51 | NPP | 22.35 | 5499.44 | NPP |

| | | Measuring | Total Well | Depth To | Depth To | Corrected | SPH |
|---------|----------|--------------------|----------------|----------------|----------------|--------------------------|-----------|
| Well ID | Date | Point Elevation | Depth | Product | Water | Groundwater Elevation | Thickness |
| | | (ft amsl) | (ft below TOC) | (ft below TOC) | (ft below TOC) | (ft amsl) | (ft) |
| | 08/19/19 | 5511.63 | 20.99 | NPP | 15.03 | 5496.60 | NPP |
| İ | 04/02/19 | 5511.63 | 20.94 | NPP | 14.53 | 5497.10 | NPP |
| | 08/02/18 | 5511.63 | 20.96 | NPP | 14.95 | 5496.68 | NPP |
| Í | 04/16/18 | 5511.63 | 20.96 | NPP | 14.87 | 5496.76 | NPP |
| | 08/23/17 | 5511.63 | 20.97 | NPP | 14.55 | 5497.08 | NPP |
| MW-34 | 04/18/17 | 5511.63 | 20.96 | NPP | 14.55 | 5497.08 | NPP |
| İ | 08/16/16 | 5511.63 | 20.96 | NPP | 14.05 | 5497.58 | NPP |
| İ | 04/18/16 | 5511.63 | 20.96 | NPP | 14.57 | 5497.06 | NPP |
| İ | 08/19/15 | 5511.63 | 20.96 | NPP | 13.90 | 5497.73 | NPP |
| İ | 04/20/15 | 5511.63 | 20.96 | NPP | 13.83 | 5497.80 | NPP |
| | 08/19/19 | 5518.95 | 25.71 | NPP | 22.82 | 5496.13 | NPP |
| İ | 04/02/19 | 5518.95 | 25.62 | NPP | 22.44 | 5496.51 | NPP |
| İ | 08/02/18 | 5518.95 | 25.92 | NPP | 22.72 | 5496.23 | NPP |
| İ | 04/16/18 | 5518.95 | 25.65 | NPP | 22.68 | 5496.27 | NPP |
| 104/05 | 08/23/17 | 5518.95 | 25.62 | NPP | 22.32 | 5496.63 | NPP |
| MW-35 | 04/18/17 | 5518.95 | 26.45 | NPP | 22.45 | 5496.50 | NPP |
| İ | 08/16/16 | 5518.95 | 26.45 | NPP | 22.04 | 5496.91 | NPP |
| İ | 04/18/16 | 5518.95 | 26.45 | NPP | 22.44 | 5496.51 | NPP |
| İ | 08/19/15 | 5518.95 | 26.45 | NPP | 21.83 | 5497.12 | NPP |
| İ | 04/20/15 | 5518.95 | 26.45 | NPP | 22.85 | 5496.10 | NPP |
| | 08/19/19 | 5516.95 | 22.94 | NPP | 20.98 | 5495.97 | NPP |
| İ | 04/02/19 | 5516.95 | 22.86 | NPP | 20.87 | 5496.08 | NPP |
| İ | 08/02/18 | 5516.95 | 23.06 | NPP | 21.01 | 5495.94 | NPP |
| İ | 04/16/18 | 5516.95 | 23.08 | NPP | 21.16 | 5495.79 | NPP |
| | 08/23/17 | 5516.95 | 23.06 | NPP | 20.77 | 5496.18 | NPP |
| MW-36 | 04/18/17 | 5516.95 | 23.26 | NPP | 20.86 | 5496.09 | NPP |
| İ | 08/16/16 | 5516.95 | 23.26 | NPP | 20.18 | 5496.77 | NPP |
| İ | 04/18/16 | 5516.95 | 23.26 | NPP | 20.95 | 5496.00 | NPP |
| İ | 08/13/15 | 5516.95 | 23.26 | NPP | 20.16 | 5496.79 | NPP |
| İ | 04/27/15 | 5516.95 | 23.26 | NPP | 19.87 | 5497.08 | NPP |
| | 08/19/19 | 5519.62 | 27.44 | NPP | 23.79 | 5495.83 | NPP |
| İ | 04/02/19 | 5519.62 | 27.36 | NPP | 23.56 | 5496.06 | NPP |
| İ | 08/02/18 | 5519.62 | 27.37 | NPP | 23.77 | 5495.85 | NPP |
| İ | 04/16/18 | 5519.62 | 27.39 | NPP | 23.80 | 5495.82 | NPP |
| | 08/23/17 | 5519.62 | 27.35 | NPP | 23.44 | 5496.18 | NPP |
| MW-37 | 04/18/17 | 5519.62 | 27.58 | NPP | 23.60 | 5496.02 | NPP |
| 1 | 08/16/16 | 5519.62 | 27.58 | NPP | 23.21 | 5496.41 | NPP |
| İ | 04/18/16 | 5519.62 | 27.58 | NPP | 23.66 | 5495.96 | NPP |
| İ | 08/19/15 | 5519.62 | 27.58 | NPP | 23.06 | 5496.56 | NPP |
| 1 | 04/20/15 | 5519.62 | 27.58 | NPP | 23.13 | 5496.49 | NPP |
| | 08/19/19 | 5519.19 | 26.74 | NPP | 23.73 | 5495.46 | NPP |
| 1 | 04/02/19 | 5519.19 | 26.65 | NPP | 23.60 | 5495.59 | NPP |
| 1 | 08/02/18 | 5519.19 | 26.84 | NPP | 23.90 | 5495.29 | NPP |
| 1 | 04/16/18 | 5519.19 | 26.84 | NPP | 23.89 | 5495.30 | NPP |
| | 08/22/17 | 5519.19 | 26.82 | NPP | 23.57 | 5495.62 | NPP |
| MW-38 | 04/18/17 | 5519.19 | 26.82 | NPP | 23.59 | 5495.60 | NPP |
| 1 | 08/16/16 | 5519.19 | 26.82 | NPP | 23.13 | 5496.06 | NPP |
| 1 | 04/18/16 | 5519.19 | 26.82 | NPP | 23.64 | 5495.55 | NPP |
| 1 | 08/19/15 | 5519.19 | 26.82 | NPP | 23.19 | 5496.00 | NPP |
| i | 04/20/15 | 5519.19 | 26.82 | NPP | 23.08 | 5496.11 | NPP |

| Well ID | Date | Measuring Point Elevation | Total Well Depth | Depth To Product | Depth To Water | Corrected Groundwater Elevation | SPH Thickness |
|----------|----------|---------------------------------|---------------------|---------------------|-------------------|---------------------------------------|------------------|
| | | (ft amsl) | (ft below TOC) | (ft below TOC) | (ft below TOC) | (ft amsl) | (ft) |
| | 08/20/19 | 5520.83 | 38.41 | NPP | 25.72 | 5495.11 | NPP |
| | 04/01/19 | 5520.83 | 38.32 | NPP | 25.42 | 5495.41 | NPP |
| | 08/01/18 | 5520.83 | 38.34 | NPP | 25.70 | 5495.13 | NPP |
| | 04/16/18 | 5520.83 | 38.34 | NPP | 25.50 | 5495.33 | NPP |
| | 08/22/17 | 5520.83 | 38.31 | NPP | 25.73 | 5495.10 | NPP |
| MW-39 | 04/17/17 | 5520.83 | 38.34 | NPP | 25.53 | 5495.30 | NPP |
| | 08/16/16 | 5520.83 | 38.34 | NPP | 25.80 | 5495.03 | NPP |
| | 04/15/16 | 5520.83 | 38.34 | NPP | 25.60 | 5495.23 | NPP |
| | 08/13/15 | 5520.83 | 38.34 | NPP | 25.78 | 5495.05 | NPP |
| | 04/27/15 | 5520.83 | 38.34 | NPP | 25.75 | 5495.08 | NPP |
| | 08/20/19 | 5527.31 | 29.79 | NPP | 27.93 | 5499.38 | NPP |
| | 04/01/19 | 5527.31 | 29.73 | NPP | 27.73 | 5499.58 | NPP |
| | 08/01/18 | 5527.31 | 29.62 | NPP | 28.33 | 5498.98 | NPP |
| | 04/16/18 | 5527.31 | 29.61 | NPP | 27.92 | 5499.39 | NPP |
| | 08/22/17 | 5527.31 | 30.07 | NPP | 27.94 | 5499.37 | NPP |
| MW-40 | 04/17/17 | 5527.31 | 30.07 | NPP | 27.86 | 5499.45 | NPP |
| | 08/16/16 | 5527.31 | 30.07 | NPP | 28.14 | 5499.17 | NPP |
| | 04/15/16 | 5527.31 | 30.07 | NPP | 28.25 | 5499.06 | NPP |
| | 08/13/15 | 5527.31 | 30.07 | 28.08 | 28.09 | 5499.23 | 0.01 |
| | 04/27/15 | 5527.31 | 30.07 | NPP | 28.08 | 5499.23 | NPP |
| | 08/20/19 | 5526.41 | 31.21 | 26.35 | 26.37 | 5500.06 | 0.02 |
| | 04/01/19 | 5526.41 | 31.21 | NPP | 26.09 | 5500.32 | NPP |
| | 08/01/18 | 5526.41 | 31.25 | 26.85 | 26.95 | 5499.54 | 0.10 |
| | 04/16/18 | 5526.41 | 31.25 | 26.51 | 26.58 | 5499.89 | 0.07 |
| | 08/22/17 | 5526.41 | 31.62 | 26.38 | 26.49 | 5500.01 | 0.11 |
| MW-41 | 04/17/17 | 5526.41 | 31.62 | NPP | 26.21 | 5500.20 | NPP |
| | 08/16/16 | 5526.41 | 31.62 | NPP | 28.14 | 5498.27 | NPP |
| | 04/15/16 | 5526.41 | 31.62 | 26.55 | 26.66 | 5499.84 | 0.11 |
| | 08/13/15 | 5526.41 | 31.62 | 26.43 | 26.67 | 5499.93 | 0.24 |
| | 04/27/15 | 5526.41 | 31.62 | 26.59 | 26.80 | 5499.78 | 0.21 |
| | 08/19/19 | 5535.44 | 50.99 | NPP | 34.55 | 5500.89 | NPP |
| | 04/01/19 | 5535.44 | 50.92 | NPP | 34.39 | 5501.05 | NPP |
| | 08/01/18 | 5535.44 | 50.96 | NPP | 34.35 | 5501.09 | NPP |
| | 04/16/18 | 5535.44 | 50.98 | NPP | 34.10 | 5501.34 | NPP |
| NANA 44 | 08/22/17 | 5535.44 | 50.91 | NPP | 34.18 | 5501.26 | NPP |
| MW-44 | 04/18/17 | 5535.44 | 50.91 | NPP | 34.05 | 5501.39 | NPP |
| | 08/16/16 | 5535.44 | 50.91 | NPP | 34.32 | 5501.12 | NPP |
| | 04/15/16 | 5535.44 | 50.91 | NPP | 33.98 | 5501.46 | NPP |
| | 08/24/15 | 5535.44 | 50.91 | NPP | 34.30 | 5501.14 | NPP |
| | 04/27/15 | 5535.44 | 50.91 | NPP | 34.98 | 5500.46 | NPP |
| | 08/19/19 | 5506.36 | 16.79 | NPP | 11.88 | 5494.48 | NPP |
| | 04/02/19 | 5506.36 | 16.66 | NPP | 11.96 | 5494.40 | NPP |
| | 08/01/18 | 5506.36 | 16.71 | 11.95 | 11.96 | 5494.41 | 0.01 |
| | 04/17/18 | 5506.36 | 16.71 | NPP | 11.96 | 5494.40 | NPP |
| N/\\/ 4E | 08/22/17 | 5506.36 | 16.74 | NPP | 11.83 | 5494.53 | NPP |
| MW-45 | 04/17/17 | 5506.36 | 16.92 | NPP | 11.81 | 5494.55 | NPP |
| | 08/16/16 | 5506.36 | 16.92 | NPP | 11.78 | 5494.58 | NPP |
| | 04/15/16 | 5506.36 | 16.92 | NPP | 11.88 | 5494.48 | NPP |
| | 08/13/15 | 5506.36 | 16.92 | NPP | 11.85 | 5494.51 | NPP |
| | 04/27/15 | 5506.36 | 16.92 | NPP | 11.95 | 5494.41 | NPP |

| | | Measuring | Total Well | Double To | Depth To | Corrected | SPH |
|--------------|----------------------|--------------------|----------------|---------------------|----------------|-------------|-----------|
| Well ID | Date | Point | Depth | Depth To Product | Water | Groundwater | Thickness |
| Well 15 | Date | Elevation | (ft below TOC) | (ft below TOC) | (ft below TOC) | Elevation | (ft) |
| | 09/10/10 | (ft amsl) | , , | , , | NWP | (ft amsl) | NPP |
| ļ | 08/19/19 04/02/19 | 5504.65 5504.65 | 10.19 10.00 | NPP NPP | NWP | NWP NWP | NPP |
| ļ | 08/01/18 | 5504.65 | 10.00 | NPP | NWP | NWP | NPP |
| ļ | 04/17/18 | 5504.65 | 10.10 | NPP | 10.10 | 5494.55 | NPP |
| ļ | 04/17/18 | 5504.65 | 10.09 | NPP | 10.08 | 5494.57 | NPP |
| MW-46 | 04/17/17 | 5504.65 | 10.39 | NPP | NWP | NWP | NPP |
| ļ | 08/15/16 | 5504.65 | 10.39 | NPP | NWP | NWP | NPP |
| ļ | 04/15/16 | 5504.65 | 10.39 | NPP | 10.03 | 5494.62 | NPP |
| ļ | 08/13/15 | 5504.65 | 10.39 | NPP | 9.94 | 5494.71 | NPP |
| ļ | 04/27/15 | 5504.65 | 10.39 | NPP | 9.94 | 5494.71 | NPP |
| | 08/19/19 | 5506.77 | 14.18 | NPP | 13.42 | 5493.35 | NPP |
| ļ | 04/02/19 | 5506.77 | 14.10 | NPP | 12.85 | 5493.92 | NPP |
| | 08/01/18 | 5506.77 | 14.11 | NPP | 13.30 | 5493.47 | NPP |
| | 04/17/18 | 5506.77 | 14.12 | NPP | 13.17 | 5493.60 | NPP |
| | 08/23/17 | 5506.77 | 14.12 | NPP | 12.96 | 5493.81 | NPP |
| MW-47 | 04/17/17 | 5506.77 | 14.11 | NPP | 12.60 | 5494.17 | NPP |
| ļ | 08/15/16 | 5506.77 | 14.28 | NPP | 12.14 | 5494.63 | NPP |
| ļ | 04/15/16 | 5506.77 | 14.28 | NPP | 12.55 | 5494.22 | NPP |
| | 08/13/15 | 5506.77 | 14.28 | NPP | 11.82 | 5494.95 | NPP |
| ļ | 04/21/15 | 5506.77 | 14.28 | NPP | 12.23 | 5494.54 | NPP |
| | 08/19/19 | 5518.79 | 22.02 | NPP | 16.73 | 5502.06 | NPP |
| | 04/01/49 | 5518.79 | 21.94 | NPP | 17.14 | 5501.65 | NPP |
| | 08/01/18 | 5518.79 | 22.11 | NPP | 18.02 | 5500.77 | NPP |
| ļ | 04/16/18 | 5518.79 | 22.07 | NPP | 17.30 | 5501.49 | NPP |
| | 08/22/17 | 5518.79 | 22.07 | NPP | 17.04 | 5501.75 | NPP |
| MW-50 | 04/18/17 | 5518.79 | 20.00 | NPP | 17.42 | 5501.37 | NPP |
| ļ | 08/15/16 | 5518.79 | 20.00 | NPP | 16.50 | 5502.29 | NPP |
| ļ | 04/15/16 | 5518.79 | 20.00 | NPP | 16.87 | 5501.92 | NPP |
| | 08/13/15 | 5518.79 | 20.00 | NPP | 16.62 | 5502.17 | NPP |
| ļ | 04/27/15 | 5518.79 | 20.00 | NPP | 16.67 | 5502.12 | NPP |
| | 08/19/19 | 5515.58 | 22.05 | NPP | 14.36 | 5501.22 | NPP |
| | 04/01/19 | 5515.58 | 22.11 | NPP | 14.74 | 5500.84 | NPP |
| | 08/01/18 | 5515.58 | 22.13 | NPP | 15.31 | 5500.27 | NPP |
| ļ | 04/16/18 | 5515.58 | 22.14 | NPP | 15.00 | 5500.58 | NPP |
| A 4) A / - / | 08/22/17 | 5515.58 | 22.11 | NPP | 14.01 | 5501.57 | NPP |
| MW-51 | 04/18/17 | 5515.58 | 20.00 | NPP | 14.93 | 5500.65 | NPP |
| | 08/15/16 | 5515.58 | 20.00 | NPP | 14.18 | 5501.40 | NPP |
| | 04/15/16 | 5515.58 | 20.00 | NPP | 14.79 | 5500.79 | NPP |
| | 08/13/15 | 5515.58 | 20.00 | NPP | 14.37 | 5501.21 | NPP |
| | 04/27/15 | 5515.58 | 20.00 | NPP | 14.52 | 5501.06 | NPP |
| | 08/19/19 | 5538.63 | 41.73 | NPP | 36.13 | 5502.50 | NPP |
| | 04/01/19 | 5538.63 | 41.66 | NPP | 36.65 | 5501.98 | NPP |
| | 08/01/18 | 5538.63 | 41.72 | NPP | 36.92 | 5501.71 | NPP |
| | 04/16/18 | 5538.63 | 41.71 | NPP | 36.78 | 5501.85 | NPP |
| NAVA 50 | 08/22/17 | 5538.63 | 41.68 | NPP | 36.45 | 5502.18 | NPP |
| MW-52 | 04/18/17 | 5538.63 | 41.00 | NPP | 36.49 | 5502.14 | NPP |
| | 08/16/16 | 5538.63 | 41.00 | NPP | 36.17 | 5502.46 | NPP |
| | 04/15/16 | 5538.63 | 41.00 | NPP | 36.19 | 5502.44 | NPP |
| | 08/13/15 | 5538.63 | 41.00 | NPP | 36.00 | 5502.63 | NPP |
| | 04/20/15 | 5538.63 | 41.00 | NPP | 36.05 | 5502.58 | NPP |

| Well ID | Date | Measuring Point | Total Well Depth | Depth To Product | Depth To Water | Corrected Groundwater | SPH Thickness |
|----------|----------|---------------------|---------------------|---------------------|-------------------|--------------------------|------------------|
| Well ID | Date | Elevation (ft amsl) | (ft below TOC) | (ft below TOC) | (ft below TOC) | Elevation (ft amsl) | (ft) |
| | 08/19/19 | 5541.32 | 43.59 | NPP | 38.91 | 5502.41 | NPP |
| | 04/01/19 | 5541.32 | 43.53 | NPP | 39.26 | 5502.06 | NPP |
| | 08/01/18 | 5541.32 | 43.55 | NPP | 39.40 | 5501.92 | NPP |
| | 04/16/18 | 5541.32 | 43.55 | NPP | 39.29 | 5502.03 | NPP |
| MANA/ FO | 08/22/17 | 5541.32 | 43.50 | NPP | 39.03 | 5502.29 | NPP |
| MW-53 | 04/18/17 | 5541.32 | 41.50 | NPP | 38.99 | 5502.33 | NPP |
| | 08/16/16 | 5541.32 | 41.50 | NPP | 38.90 | 5502.42 | NPP |
| | 04/15/16 | 5541.32 | 41.50 | NPP | 38.85 | 5502.47 | NPP |
| | 08/13/15 | 5541.32 | 41.50 | NPP | 38.68 | 5502.64 | NPP |
| | 04/27/15 | 5541.32 | 41.50 | NPP | 38.80 | 5502.52 | NPP |
| | 08/19/19 | 5530.08 | 41.21 | NPP | 31.79 | 5498.29 | NPP |
| | 04/01/19 | 5530.08 | 41.32 | NPP | 31.53 | 5498.55 | NPP |
| | 08/01/18 | 5530.08 | 41.28 | NPP | 32.26 | 5497.82 | NPP |
| | 04/16/18 | 5530.08 | 41.24 | NPP | 31.83 | 5498.25 | NPP |
| MW-54 | 08/22/17 | 5530.08 | 41.20 | NPP | 31.98 | 5498.10 | NPP |
| IVIVV-54 | 04/17/17 | 5530.08 | 38.00 | NPP | 31.73 | 5498.35 | NPP |
| | 08/16/16 | 5530.08 | 38.00 | 31.87 | 31.88 | 5498.21 | 0.01 |
| | 04/15/16 | 5530.08 | 38.00 | 32.46 | 32.52 | 5497.61 | 0.06 |
| | 08/13/15 | 5530.08 | 38.00 | 32.40 | 32.45 | 5497.67 | 0.05 |
| | 04/27/15 | 5530.08 | 38.00 | 32.02 | 32.05 | 5498.05 | 0.03 |
| | 08/20/19 | 5519.84 | 25.98 | NPP | 21.85 | 5497.99 | NPP |
| | 04/01/19 | 5519.84 | 25.87 | NPP | 21.76 | 5498.08 | NPP |
| | 08/01/18 | 5519.84 | 26.19 | NPP | 21.80 | 5498.04 | NPP |
| | 04/16/18 | 5519.84 | 26.18 | NPP | 21.75 | 5498.09 | NPP |
| NA\A/ == | 08/22/17 | 5519.84 | 24.18 | NPP | 21.61 | 5498.23 | NPP |
| MW-55 | 04/17/17 | 5519.84 | 27.25 | NPP | 21.63 | 5498.21 | NPP |
| | 08/15/16 | 5519.84 | 27.25 | NPP | 21.74 | 5498.10 | NPP |
| | 04/15/16 | 5519.84 | 27.25 | NPP | 21.71 | 5498.13 | NPP |
| | 08/13/15 | 5519.84 | 27.25 | 22.08 | 22.09 | 5497.76 | 0.01 |
| | 04/27/15 | 5519.84 | 27.25 | 21.85 | 21.88 | 5497.98 | 0.03 |
| | 08/20/19 | 5519.31 | 23.66 | NPP | 18.02 | 5501.29 | NPP |
| | 04/01/19 | 5519.31 | 23.72 | NPP | 18.16 | 5501.15 | NPP |
| | 08/01/18 | 5519.31 | 23.76 | 18.33 | 18.42 | 5500.96 | 0.09 |
| | 04/16/18 | 5519.31 | 23.76 | NPP | 18.25 | 5501.06 | NPP |
| MW-56 | 08/22/17 | 5519.31 | 23.75 | NPP | 18.05 | 5501.26 | NPP |
| 10100-30 | 04/17/17 | 5519.31 | 23.75 | NPP | 17.88 | 5501.43 | NPP |
| | 08/15/16 | 5519.31 | 23.75 | NPP | 17.85 | 5501.46 | NPP |
| | 04/15/16 | 5519.31 | 23.75 | NPP | 18.03 | 5501.28 | NPP |
| | 08/13/15 | 5519.31 | 23.75 | 17.86 | 17.87 | 5501.45 | 0.01 |
| | 04/27/15 | 5519.31 | 23.75 | 18.04 | 18.05 | 5501.27 | 0.01 |
| | 08/20/19 | 5521.17 | 23.93 | 19.35 | 19.65 | 5501.76 | 0.30 |
| | 04/01/19 | 5521.17 | 23.93 | 19.52 | 19.78 | 5501.60 | 0.26 |
| | 08/01/18 | 5521.17 | 23.95 | 19.74 | 19.76 | 5501.43 | 0.02 |
| | 04/16/18 | 5521.17 | 23.95 | 19.65 | 19.66 | 5501.52 | 0.01 |
| MW-57 | 08/22/17 | 5521.17 | 24.25 | 19.43 | 19.44 | 5501.74 | 0.01 |
| | 04/17/17 | 5521.17 | 24.25 | NPP | 19.37 | 5501.80 | NPP |
| | 08/15/16 | 5521.17 | 24.25 | NPP | 19.29 | 5501.88 | NPP |
| | 04/15/16 | 5521.17 | 24.25 | NPP | 19.46 | 5501.71 | NPP |
| | 08/13/15 | 5521.17 | 24.25 | 19.42 | 19.43 | 5501.75 | 0.01 |
| | 04/27/15 | 5521.17 | 24.25 | 19.42 | 19.43 | 5501.75 | 0.01 |

| | | Measuring Point | Total Well | Depth To | Depth To | Corrected Groundwater | SPH |
|--------------|----------|------------------------|-------------------------|---------------------------|-------------------------|--------------------------|-------------------|
| Well ID | Date | Elevation (ft amsl) | Depth (ft below TOC) | Product (ft below TOC) | Water (ft below TOC) | Elevation (ft amsl) | Thickness (ft) |
| | 08/20/19 | 5520.29 | 27.35 | 20.85 | 20.88 | 5499.43 | 0.03 |
| | 04/01/19 | 5520.29 | 27.35 | 20.99 | 21.46 | 5499.21 | 0.47 |
| | 08/01/18 | 5520.29 | 27.35 | NPP | 21.15 | 5499.14 | NPP |
| | 04/16/18 | 5520.29 | 27.35 | NPP | 21.03 | 5499.26 | NPP |
| | 08/22/17 | 5520.29 | 27.00 | 20.83 | 20.84 | 5499.46 | 0.01 |
| MW-58 | 04/17/17 | 5520.29 | 27.00 | NPP | 20.78 | 5499.51 | NPP |
| | 08/15/16 | 5520.29 | 27.00 | 20.9 | 20.93 | 5499.38 | 0.03 |
| | 04/15/16 | 5520.29 | 27.00 | 20.9 | 21.06 | 5499.36 | 0.16 |
| | 08/13/15 | 5520.29 | 27.00 | 20.8 | 20.83 | 5499.48 | 0.03 |
| | 04/27/15 | 5520.29 | 27.00 | 20.97 | 21.75 | 5499.16 | 0.78 |
| | 08/19/19 | 5545.20 | 46.93 | NPP | 43.75 | 5501.45 | NPP |
| | 04/02/19 | 5545.20 | 46.86 | NPP | 43.79 | 5501.41 | NPP |
| | 08/02/18 | 5545.20 | 46.88 | NPP | 43.62 | 5501.58 | NPP |
| | 04/16/18 | 5545.20 | 46.88 | NPP | 43.49 | 5501.71 | NPP |
| | 08/22/17 | 5545.20 | 46.85 | NPP | 43.43 | 5501.77 | NPP |
| MW-59 | 04/18/17 | 5545.20 | 44.25 | NPP | 43.37 | 5501.83 | NPP |
| | 08/16/16 | 5545.20 | 44.25 | NPP | 43.52 | 5501.68 | NPP |
| | 04/18/16 | 5545.20 | 44.25 | NPP | 43.36 | 5501.84 | NPP |
| | 08/13/15 | 5545.20 | 44.25 | NPP | 43.42 | 5501.78 | NPP |
| | 04/27/15 | 5545.20 | 44.25 | NPP | 43.55 | 5501.65 | NPP |
| | 08/19/19 | 5543.71 | 43.43 | NPP | 42.98 | 5500.73 | NPP |
| | 04/02/19 | 5543.71 | 43.31 | NPP | 42.92 | 5500.79 | NPP |
| | 08/02/18 | 5543.71 | 43.38 | NPP | 42.88 | 5500.83 | NPP |
| | 04/16/18 | 5543.71 | 43.38 | NPP | 42.74 | 5500.97 | NPP |
| | 08/22/17 | 5543.71 | 43.36 | NPP | 42.65 | 5501.06 | NPP |
| MW-60 | 04/18/17 | 5543.71 | 43.33 | NPP | 42.58 | 5501.13 | NPP |
| | 08/16/16 | 5543.71 | 43.33 | NPP | 42.72 | 5500.99 | NPP |
| | 04/18/16 | 5543.71 | 43.33 | NPP | 42.55 | 5501.16 | NPP |
| | 08/13/15 | 5543.71 | 43.33 | NPP | 42.62 | 5501.09 | NPP |
| | 04/27/15 | 5543.71 | 43.33 | NPP | 42.76 | 5500.95 | NPP |
| | 08/19/19 | 5539.41 | 40.60 | 36.72 | 37.03 | 5502.63 | 0.31 |
| | 04/02/19 | 5539.41 | 40.45 | 37.01 | 37.35 | 5502.33 | 0.34 |
| | 08/02/18 | 5539.41 | 40.50 | 36.93 | 37.23 | 5502.42 | 0.30 |
| | 04/17/18 | 5539.41 | 40.50 | 36.80 | 37.04 | 5502.56 | 0.24 |
| A 4) A 1 G 1 | 08/22/17 | 5539.41 | 40.45 | 36.60 | 36.81 | 5502.77 | 0.21 |
| MW-61 | 04/18/17 | 5539.41 | 40.25 | 36.59 | 36.80 | 5502.78 | 0.21 |
| | 08/16/16 | 5539.41 | 40.25 | 36.60 | 36.93 | 5502.74 | 0.33 |
| | 04/18/16 | 5539.41 | 40.25 | 36.60 | 36.86 | 5502.76 | 0.26 |
| | 08/13/15 | 5539.41 | 40.25 | 36.38 | 36.70 | 5502.97 | 0.32 |
| | 04/27/15 | 5539.41 | 40.25 | 36.60 | 36.96 | 5502.74 | 0.36 |
| | 08/19/19 | 5561.32 | 61.09 | NPP | 56.61 | 5504.71 | NPP |
| | 04/02/19 | 5561.32 | 60.93 | NPP | 56.51 | 5504.81 | NPP |
| | 08/02/18 | 5561.32 | 61.29 | NPP | 56.65 | 5504.67 | NPP |
| | 04/16/18 | 5561.32 | 61.24 | NPP | 56.52 | 5504.80 | NPP |
| NAVA / 00 | 08/22/17 | 5561.32 | 61.25 | NPP | 56.71 | 5504.61 | NPP |
| MW-62 | 04/18/17 | 5561.32 | 58.25 | NPP | 56.53 | 5504.79 | NPP |
| | 08/16/16 | 5561.32 | 58.25 | NPP | 56.51 | 5504.81 | NPP |
| | 04/18/16 | 5561.32 | 58.25 | NPP | 56.57 | 5504.75 | NPP |
| | 08/13/15 | 5561.32 | 58.25 | NPP | 56.59 | 5504.73 | NPP |
| | 04/27/15 | 5561.32 | 58.25 | NPP | 56.33 | 5504.99 | NPP |

| | | Measuring | Total Well | Depth To | Depth To | Corrected | SPH |
|----------|----------|------------------------|----------------|----------------|----------------|------------------------|-----------|
| Well ID | Date | Point | Depth | Product | Water | Groundwater | Thickness |
| | | Elevation (ft amsl) | (ft below TOC) | (ft below TOC) | (ft below TOC) | Elevation (ft amsl) | (ft) |
| | 08/19/19 | 5547.26 | 47.72 | NPP | 45.20 | 5502.06 | NPP |
| | 04/02/19 | 5547.26 | 47.64 | NPP | 45.31 | 5501.95 | NPP |
| | 08/02/18 | 5547.26 | 47.83 | NPP | 45.17 | 5502.09 | NPP |
| | 04/16/18 | 5547.26 | 47.79 | NPP | 45.02 | 5502.24 | NPP |
| | 08/22/17 | 5547.26 | 47.81 | NPP | 44.92 | 5502.34 | NPP |
| MW-63 | 04/18/17 | 5547.26 | 46.00 | NPP | 44.87 | 5502.39 | NPP |
| | 08/16/16 | 5547.26 | 46.00 | NPP | 40.01 | 5507.25 | NPP |
| | 04/18/16 | 5547.26 | 46.00 | NPP | 44.87 | 5502.39 | NPP |
| | 08/13/15 | 5547.26 | 46.00 | NPP | 44.84 | 5502.42 | NPP |
| | 04/27/15 | 5547.26 | 46.00 | NPP | 45.03 | 5502.23 | NPP |
| | 08/19/19 | 5552.29 | 52.42 | NPP | 50.41 | 5501.88 | NPP |
| | 04/02/19 | 5552.29 | 52.33 | NPP | 50.49 | 5501.80 | NPP |
| | 08/02/18 | 5552.29 | 52.36 | NPP | 50.38 | 5501.91 | NPP |
| | 04/16/18 | 5552.29 | 52.35 | NPP | 50.25 | 5502.04 | NPP |
| | 08/22/17 | 5552.29 | 52.32 | NPP | 50.19 | 5502.10 | NPP |
| MW-64 | 04/18/17 | 5552.29 | 52.25 | NPP | 44.87 | 5507.42 | NPP |
| | 08/16/16 | 5552.29 | 52.25 | NPP | 50.26 | 5502.03 | NPP |
| | 04/18/16 | 5552.29 | 52.25 | NPP | 50.11 | 5502.18 | NPP |
| | 08/13/15 | 5552.29 | 52.25 | NPP | 50.17 | 5502.12 | NPP |
| | 04/27/15 | 5552.29 | 52.25 | NPP | 50.27 | 5502.02 | NPP |
| | 08/19/19 | 5539.62 | 44.28 | NPP | 37.07 | 5502.55 | NPP |
| | 04/02/19 | 5539.62 | 44.19 | NPP | 37.37 | 5502.25 | NPP |
| | 08/02/18 | 5539.62 | 44.21 | NPP | 37.35 | 5502.27 | NPP |
| | 04/17/18 | 5539.62 | 44.21 | NPP | 37.22 | 5502.40 | NPP |
| NAVA 05 | 08/22/17 | 5539.62 | 44.22 | NPP | 37.03 | 5502.59 | NPP |
| MW-65 | 04/18/17 | 5539.62 | 44.25 | NPP | 36.98 | 5502.64 | NPP |
| | 08/16/16 | 5539.62 | 44.25 | NPP | 36.93 | 5502.69 | NPP |
| | 04/18/16 | 5539.62 | 44.25 | NPP | 36.94 | 5502.68 | NPP |
| | 08/13/15 | 5539.62 | 44.25 | NPP | 36.70 | 5502.92 | NPP |
| | 04/27/15 | 5539.62 | 44.25 | NPP | 37.50 | 5502.12 | NPP |
| | 08/19/19 | 5544.62 | 45.57 | 41.89 | 41.95 | 5502.72 | 0.06 |
| | 04/02/19 | 5544.62 | 45.49 | 42.16 | 42.24 | 5502.44 | 0.08 |
| | 08/02/18 | 5544.62 | 45.48 | 42.10 | 42.17 | 5502.51 | 0.07 |
| | 04/16/18 | 5544.62 | 45.48 | 41.97 | 42.01 | 5502.64 | 0.04 |
| MW-66 | 08/22/17 | 5544.62 | 45.49 | 41.81 | 41.82 | 5502.81 | 0.01 |
| 10100-00 | 04/18/17 | 5544.62 | 43.25 | NPP | 41.77 | 5502.85 | NPP |
| | 08/16/16 | 5544.62 | 43.25 | 41.82 | 41.83 | 5502.80 | 0.01 |
| | 04/18/16 | 5544.62 | 43.25 | NPP | 41.75 | 5502.87 | NPP |
| | 08/13/15 | 5544.62 | 43.25 | 41.57 | 41.58 | 5503.05 | 0.01 |
| | 04/27/15 | 5544.62 | 43.25 | NPP | 41.81 | 5502.81 | NPP |
| | 08/19/19 | 5523.31 | 26.12 | NPP | 21.09 | 5502.22 | NPP |
| | 04/01/19 | 5523.31 | 26.21 | NPP | 21.37 | 5501.94 | NPP |
| | 08/01/18 | 5523.31 | 26.23 | NPP | 22.08 | 5501.23 | NPP |
| | 04/16/18 | 5523.31 | 26.22 | NPP | 21.60 | 5501.71 | NPP |
| MW-67 | 08/22/17 | 5523.31 | 26.18 | NPP | 21.37 | 5501.94 | NPP |
| | 04/18/17 | 5523.31 | 25.14 | NPP | 21.53 | 5501.78 | NPP |
| | 08/16/16 | 5523.31 | 25.14 | NPP | 20.94 | 5502.37 | NPP |
| | 04/15/16 | 5523.31 | 25.14 | NPP | 21.25 | 5502.06 | NPP |
| | 08/13/15 | 5523.31 | 25.14 | NPP | 21.02 | 5502.29 | NPP |
| | 04/27/15 | 5523.31 | 25.14 | NPP | 21.10 | 5502.21 | NPP |

| Well ID | Date | Measuring Point | Total Well Depth | Depth To Product | Depth To Water | Corrected Groundwater | SPH Thickness |
|----------|----------------------|------------------------|---------------------|---------------------|-------------------|--------------------------|------------------|
| Well ID | Dute | Elevation (ft amsl) | (ft below TOC) | (ft below TOC) | (ft below TOC) | Elevation (ft amsl) | (ft) |
| | 08/19/19 | 5517.37 | 21.07 | NPP | 16.53 | 5500.84 | NPP |
| | 04/01/19 | 5517.37 | 21.08 | NPP | 16.93 | 5500.44 | NPP |
| | 08/01/18 | 5517.37 | 21.10 | NPP | 17.33 | 5500.04 | NPP |
| | 04/16/18 | 5517.37 | 21.10 | NPP | 17.13 | 5500.24 | NPP |
| MW-68 | 08/22/17 | 5517.37 | 21.10 | NPP | 16.72 | 5500.65 | NPP |
| IVIVV-00 | 04/18/17 | 5517.37 | 20.58 | NPP | 16.91 | 5500.46 | NPP |
| | 08/15/16 | 5517.37 | 20.58 | NPP | 16.20 | 5501.17 | NPP |
| | 04/15/16 | 5517.37 | 20.58 | NPP | 16.66 | 5500.71 | NPP |
| | 08/13/15 | 5517.37 | 20.58 | NPP | 16.23 | 5501.14 | NPP |
| | 04/27/15 | 5517.37 | 20.58 | NPP | 16.40 | 5500.97 | NPP |
| | 08/19/19 | 5508.51 | 11.95 | NPP | NWP | NWP | NPP |
| | 04/02/19 | 5508.51 | 12.02 | NPP | 11.97 | 5496.54 | NPP |
| | 08/18/18 | 5508.51 | 12.01 | NPP | 11.95 | 5496.56 | NPP |
| | 04/17/18 | 5508.51 | 12.01 | NPP | 11.94 | 5496.57 | NPP |
| MW-69 | 08/22/17 | 5508.51 | NM | NM | NM | NM | NM |
| 10100 05 | 04/17/17 | 5508.51 | 12.08 | NPP | 11.90 | 5496.61 | NPP |
| | 08/15/16 | 5508.51 | 12.08 | NPP | 11.89 | 5496.62 | NPP |
| | 04/15/16 | 5508.51 | 12.08 | NPP | 11.89 | 5496.62 | NPP |
| | 08/13/15 | 5508.51 | 12.08 | NPP | NWP | NWP | NPP |
| | 04/27/15 | 5508.51 | 12.08 | NPP | 11.81 | 5496.70 | NPP |
| | 08/19/19 | 5527.96 | 28.71 | NPP | 25.19 | 5502.77 | NPP |
| | 04/01/19 | 5527.96 | 28.89 | NPP | 25.84 | 5502.12 | NPP |
| | 08/01/18 | 5527.96 | 28.94 | NPP | 26.36 | 5501.60 | NPP |
| | 04/16/18 | 5527.96 | 28.93 | NPP | 26.16 | 5501.80 | NPP |
| MW-70 | 08/22/17 | 5527.96 | 28.89 | NPP | 25.83 | 5502.13 | NPP |
| | 04/18/17 | 5527.96 | 26.25 | NPP | 25.99 | 5501.97 | NPP |
| | 08/15/16 | 5508.51 | 26.25 | NPP | 25.43 | 5483.08 | NPP |
| | 04/15/16 | 5508.51 | 26.25 | NPP | 25.63 | 5482.88 | NPP |
| | 08/13/15 | 5527.96 | 26.25 | NPP | 25.29 | 5502.67 | NPP |
| | 04/27/15 | 5527.96 | 26.25 | NPP | 25.46 | 5502.50 | NPP |
| | 08/20/19 | 5529.08 | 38.09 | NPP | 29.86 | 5499.22 | NPP |
| | 04/01/19 | 5529.08 | 37.96 | 30.05 | 30.06 | 5499.03 | 0.01 |
| | 08/01/18 | 5529.08 | 37.98 | 30.20 | 30.24 | 5498.87 | 0.04 |
| | 04/16/18 | 5529.08 | 37.98 | 29.96 | 29.97 | 5499.12 | 0.01 |
| MW-71 | 08/22/17 | 5529.08 | 37.96 | NPP | 29.85 | 5499.23 | NPP |
| | 04/17/17 | 5529.08 | 38.95 | NPP | 29.91 | 5499.17 | NPP |
| | 08/16/16 | 5529.08 | 38.95 | 30.14 | 30.26 | 5498.92 | 0.12 |
| | 04/15/16 | 5529.08 | 38.95 | 30.12 | 30.16 | 5498.95 | 0.04 |
| | 08/13/15 | 5529.08 | 38.95 | 30.05 | 30.15 | 5499.01 | 0.10 |
| | 04/28/15 | 5529.08 | 38.95 | 30.22 | 30.35 | 5498.83 | 0.13 |
| | 08/20/19 | 5528.54 | 34.85 | 28.38 | 28.51 | 5500.13 | 0.13 |
| | 04/01/19 08/01/18 | 5528.54 | 34.85 | 28.46 | 28.56 | 5500.06 | 0.10 1.20 |
| | 04/16/18 | 5528.54 5528.54 | 34.94 34.95 | 28.78 28.55 | 29.98 28.71 | 5499.52 5499.96 | 0.16 |
| | 08/22/17 | 5528.54 | 34.91 | 28.33 | 28.37 | 5500.20 | 0.16 |
| MW-72 | 04/17/17 | 5528.54 | 34.94 | 28.30 | 28.48 | 5500.20 | 0.04 |
| | 08/16/16 | 5528.54 | 34.94 | 28.51 | 28.90 | 5499.95 | 0.18 |
| | 04/15/16 | 5528.54 | 34.94 | NPP | 28.93 | 5499.95 | NPP |
| | 08/13/15 | 5528.54 | 34.94 | NPP | 28.66 | 5499.88 | NPP |
| | 04/28/15 | 3320.34 | 34.94 | NPP | 28.66 | 5499.88 | NPP |

| | | Measuring Point | Total Well | Depth To | Depth To | Corrected Groundwater | SPH |
|---------|----------|----------------------|-------------------------|---------------------------|-------------------------|--------------------------|-------------------|
| Well ID | Date | Elevation | Depth (ft below TOC) | Product (ft below TOC) | Water (ft below TOC) | Elevation | Thickness (ft) |
| | 08/20/19 | (ft amsl) 5528.92 | 36.83 | NPP | 29.42 | (ft amsl) 5499.50 | NPP |
| | 04/01/19 | 5528.92 | 36.75 | NPP | 29.42 | 5499.32 | NPP |
| | 08/01/18 | 5528.92 | 36.79 | NPP | 29.77 | 5499.15 | NPP |
| | 04/16/18 | 5528.92 | 36.78 | NPP | 29.53 | 5499.39 | NPP |
| | 08/22/17 | 5528.92 | 36.76 | NPP | 29.39 | 5499.53 | NPP |
| MW-73 | 04/17/17 | 5528.92 | 36.66 | NPP | 29.33 | 5499.59 | NPP |
| | 08/16/16 | 5528.92 | 36.66 | NPP | 29.71 | 5499.21 | NPP |
| | 04/15/16 | 5528.92 | 36.66 | NPP | 29.58 | 5499.34 | NPP |
| | 04/13/16 | 5528.92 | 36.66 | NPP | 29.61 | 5499.31 | NPP |
| | 04/28/15 | 5528.92 | 36.66 | NPP | 29.80 | 5499.12 | NPP |
| | 04/20/13 | 5528.92 | 33.85 | NPP | 28.83 | 5500.09 | NPP |
| | 04/01/19 | 5528.92 | 33.94 | NPP | 28.95 | 5499.97 | NPP |
| | 08/01/18 | 5528.92 | 33.93 | NPP | 29.09 | 5499.83 | NPP |
| | 04/16/18 | 5528.92 | 33.94 | NPP | 28.87 | 5500.05 | NPP |
| | 08/22/17 | | 33.94 | NPP | 28.75 | 5500.05 | NPP |
| MW-74 | 06/22/17 | 5528.92 | | NPP | 28.63 | | NPP |
| | 08/16/16 | 5528.92 | 33.91 | NPP | | 5500.29 | NPP |
| | | 5528.92 | 33.91 | NPP | 28.95 | 5499.97 | NPP |
| | 04/15/16 | 5528.92 | 33.91 | | 28.87 | 5500.05 | |
| | 08/13/15 | 5528.92 | 33.91 | NPP | 28.79 | 5500.13 | NPP |
| | 04/28/15 | 5528.55 | 33.91 | 29.00 | 29.04 | 5499.54 | 0.04 |
| | 08/20/19 | 5528.76 | 32.25 | NPP | 28.43 | 5500.33 | NPP |
| | 04/01/19 | 5528.76 | 31.95 | NPP | 28.43 | 5500.33 | NPP |
| | 08/01/18 | 5528.76 | 32.18 | NPP | 28.66 | 5500.10 | NPP |
| | 04/16/18 | 5528.76 | 32.18 | NPP | 28.46 | 5500.30 | NPP |
| MW-75 | 08/23/17 | 5528.76 | 32.25 | NPP | 28.21 | 5500.55 | NPP |
| | 04/17/17 | 5528.76 | 32.25 | NPP | 28.13 | 5500.63 | NPP |
| | 08/15/16 | 5528.76 | 32.25 | NPP | 28.37 | 5500.39 | NPP |
| | 04/15/16 | 5528.76 | 32.25 | NPP | 28.35 | 5500.41 | NPP |
| | 08/13/15 | 5528.76 | 32.25 | 28.15 | 28.16 | 5500.61 | 0.01 |
| | 04/28/15 | 5528.76 | 32.25 | 28.40 | 28.41 | 5500.36 | 0.01 |
| | 08/20/19 | 5528.61 | 34.14 | NPP | 28.65 | 5499.96 | NPP |
| | 04/01/19 | 5528.61 | 34.01 | NPP | 28.33 | 5500.28 | NPP |
| | 08/01/18 | 5528.61 | 34.10 | NPP | 29.14 | 5499.47 | NPP |
| | 04/16/18 | 5528.61 | 34.09 34.09 | NPP | 28.84 | 5499.77 | NPP |
| MW-76 | 08/22/17 | 5528.61 | 34.09 | NPP NPP | 28.70 | 5499.91 | NPP NPP |
| | | 5528.61 | 34.16 | | 28.54 | 5500.07 | |
| | 08/15/16 | 5528.61 | | NPP | 28.79 | 5499.82 | NPP NPP |
| | 04/15/16 | 5528.61 | 34.16 | NPP NPP | 28.84 | 5499.77 | |
| | 08/13/15 | 5528.61 | 34.16 | | 28.48 | 5500.13 | NPP |
| | 04/28/15 | 5528.61 | 34.16 | NPP | 28.97 | 5499.64 | NPP 0.70 |
| | 08/19/19 | 5527.59 | 34.23 | 28.42 | 29.12 | 5499.03 | 0.70 |
| | 04/01/19 | 5527.59 | 34.27 | 28.31 | 28.68 | 5499.21 | 0.37 |
| | 08/01/18 | 5527.59 | 34.30 | 28.95 | 29.57 | 5498.52 | 0.62 |
| | 04/16/18 | 5527.59 | 34.30 | 28.48 | 29.23 | 5498.96 | 0.75 |
| MW-77 | 08/23/17 | 5527.59 | 34.30 | 28.63 | 29.22 | 5498.84 | 0.59 |
| | 04/17/17 | 5527.59 | 34.30 | 28.54 | 29.12 | 5498.93 | 0.58 |
| | 08/15/16 | 5527.59 | 34.30 | 28.80 | 29.44 | 5498.66 | 0.64 |
| | 04/15/16 | 5527.59 | 34.30 | 29.05 | 29.56 | 5498.44 | 0.51 |
| | 08/13/15 | 5527.59 | 34.30 | 28.93 | 29.50 | 5498.55 | 0.57 |
| | 04/28/15 | 5527.59 | 34.30 | 28.86 | 29.44 | 5498.61 | 0.58 |

| | | Measuring | Total Mall | Double To | Donth To | Corrected | CDII |
|---------|----------|----------------------|---------------------|---------------------|-------------------|----------------------|------------------|
| Well ID | Date | Point | Total Well Depth | Depth To Product | Depth To Water | Groundwater | SPH Thickness |
| Well ib | Date | Elevation | (ft below TOC) | (ft below TOC) | (ft below TOC) | Elevation | (ft) |
| | 08/19/19 | (ft amsl) 5510.77 | 22.70 | NPP | 11.52 | (ft amsl) 5499.25 | NPP |
| | 04/02/19 | 5510.77 | 22.70 | NPP | 10.60 | 5500.17 | NPP |
| | | | | NPP | | | NPP |
| | 08/02/18 | 5510.77 5510.77 | 22.75 22.75 | NPP | 11.66 11.52 | 5499.11 5499.25 | NPP |
| | | | 22.73 | NPP | 11.34 | | NPP |
| P-03 | 08/23/17 | 5510.77 5510.77 | _ | NPP | | 5499.43 5500.24 | NPP |
| | 04/18/17 | | 22.73 | NPP | 10.53 | | NPP |
| | 08/16/16 | 5510.77 | 22.73 | | 10.40 | 5500.37 | |
| | 04/18/16 | 5510.77 | 22.73 | NPP | 11.55 | 5499.22 | NPP |
| | 08/13/15 | 5510.77 | 22.73 | NPP | 10.71 | 5500.06 | NPP |
| | 04/27/15 | 5510.77 | 22.73 | NPP | 11.09 | 5499.68 | NPP |
| | 08/19/19 | 5517.80 | 80.63 | NPP | 77.37 | 5440.43 | NPP |
| | 04/02/19 | 5517.80 | 80.54 | NPP | 77.32 | 5440.48 | NPP |
| | 08/02/18 | 5517.80 | 80.55 | NPP | 77.35 | 5440.45 | NPP |
| BCK-1 | 04/20/18 | 5517.80 | 80.55 | NPP | 77.35 | 5440.45 | NPP |
| BCK-1 | 08/13/15 | 5517.80 | 79.00 | NPP | 77.43 | 5440.37 | NPP |
| | 04/27/15 | 5517.80 | 79.00 | NPP | 77.30 | 5440.50 | NPP |
| | 08/18/14 | 5517.80 | 79.00 | NPP | 77.37 | 5440.43 | NPP |
| | 08/05/13 | 5517.80 | 79.00 | NPP | 77.28 | 5440.52 | NPP |
| | 04/08/13 | 5517.80 | 79.00 | NPP | 77.15 | 5440.65 | NPP |
| | 08/19/19 | 5620.14 | 46.99 | NPP | 26.23 | 5593.91 | NPP |
| | 04/02/19 | 5620.14 | 46.90 | NPP | 25.13 | 5595.01 | NPP |
| | 08/02/18 | 5620.14 | 46.95 | NPP | 25.85 | 5594.29 | NPP |
| DOI(0 | 04/20/18 | 5620.14 | 46.95 | NPP | 25.10 | 5595.04 | NPP |
| BCK-2 | 08/13/15 | 5620.14 | 46.97 | NPP | 26.10 | 5594.04 | NPP |
| | 04/27/15 | 5620.14 | 46.97 | NPP | 25.57 | 5594.57 | NPP |
| | 08/18/14 | 5620.14 | 46.97 | NPP | 28.10 | 5592.04 | NPP |
| | 08/05/13 | 5620.14 | 46.97 | NPP | 26.52 | 5593.62 | NPP |
| | 04/08/13 | 5620.14 | 46.97 | NPP | 25.58 | 5594.56 | NPP |
| | 08/19/19 | 5529.34 | 40.73 | NPP | 30.63 | 5498.71 | NPP |
| | 04/01/19 | 5529.34 | 40.75 | NPP | 30.33 | 5499.01 | NPP |
| | 08/01/18 | 5529.34 | 40.93 | NPP | 31.12 | 5498.22 | NPP |
| | 04/16/18 | 5529.34 | 40.91 | NPP | 30.80 | 5498.54 | NPP |
| RW-01 | 08/22/17 | 5529.34 | 40.80 | NPP | 30.84 | 5498.50 | NPP |
| | 04/17/17 | 5529.34 | 40.80 | NPP | 30.52 | 5498.82 | NPP |
| | 08/16/16 | 5529.34 | 40.80 | 30.6 | 30.71 | 5498.72 | 0.11 |
| | 04/15/16 | 5529.34 | 40.80 | NPP | 31.31 | 5498.03 | NPP |
| | 08/13/15 | 5529.34 | 40.80 | 30.77 | 30.78 | 5498.57 | 0.01 |
| | 04/27/15 | 5529.34 | 40.80 | NPP | 30.83 | 5498.51 | NPP |
| | 08/20/19 | 5526.94 | 35.23 | 26.59 | 26.80 | 5500.31 | 0.21 |
| | 04/01/19 | 5526.94 | 35.03 | 26.45 | 26.60 | 5500.46 | 0.15 |
| | 08/01/18 | 5526.94 | 35.00 | NPP | 26.72 | 5500.22 | NPP |
| | 04/16/18 | 5526.94 | 35.10 | NPP | 26.55 | 5500.39 | NPP |
| RW-02 | 08/22/17 | 5526.94 | 35.86 | NPP | 26.35 | 5500.59 | NPP |
| | 04/17/17 | 5526.94 | 35.86 | NPP | 26.08 | 5500.86 | NPP |
| | 08/15/16 | 5526.94 | 35.86 | NPP | 26.43 | 5500.51 | NPP |
| | 04/15/16 | 5526.94 | 35.86 | NPP | 26.35 | 5500.59 | NPP |
| | 08/13/15 | 5526.94 | 35.86 | NPP | 26.26 | 5500.68 | NPP |
| | 04/27/15 | 5526.94 | 35.86 | NPP | 26.37 | 5500.57 | NPP |

| Well ID | Date | Measuring Point Elevation | Total Well Depth | Depth To Product | Depth To Water | Corrected Groundwater Elevation | SPH Thickness |
|---------|----------|---------------------------------|---------------------|---------------------|-------------------|---------------------------------------|------------------|
| | | (ft amsl) | (ft below TOC) | (ft below TOC) | (ft below TOC) | (ft amsl) | (ft) |
| | 08/19/19 | 5520.35 | 33.81 | NPP | 21.69 | 5498.66 | NPP |
| | 04/02/19 | 5520.35 | 33.81 | NPP | 21.21 | 5499.14 | NPP |
| | 08/01/18 | 5520.35 | 33.75 | NPP | 22.08 | 5498.27 | NPP |
| | 04/16/18 | 5520.35 | 33.78 | NPP | 21.72 | 5498.63 | NPP |
| RW-03 | 08/22/17 | 5520.35 | 34.57 | NM | NM | NM | NM |
| KW-03 | 04/17/17 | 5520.35 | 34.57 | NPP | 21.33 | 5499.02 | NPP |
| | 08/16/16 | 5520.35 | 34.57 | NPP | 21.34 | 5499.01 | NPP |
| | 04/15/16 | 5520.35 | 34.57 | NPP | 22.25 | 5498.10 | NPP |
| | 08/13/15 | 5520.35 | 34.57 | NPP | 22.02 | 5498.33 | NPP |
| | 04/27/15 | 5520.35 | 34.57 | NPP | 21.59 | 5498.76 | NPP |
| | 08/20/19 | 5523.21 | 33.55 | 24.65 | 24.68 | 5498.55 | 0.03 |
| | 04/01/19 | 5523.21 | 33.44 | 24.69 | 24.70 | 5498.52 | 0.01 |
| | 08/01/18 | 5523.21 | 33.54 | 24.73 | 24.74 | 5498.48 | 0.01 |
| | 04/16/18 | 5523.21 | 33.55 | NPP | 24.65 | 5498.56 | NPP |
| RW-09 | 08/22/17 | 5523.21 | 34.04 | 24.55 | 24.58 | 5498.65 | 0.03 |
| KVV-09 | 04/17/17 | 5523.21 | 34.04 | 24.55 | 24.56 | 5498.66 | 0.01 |
| | 08/16/16 | 5523.21 | 34.04 | 24.64 | 24.67 | 5498.56 | NPP |
| | 04/15/16 | 5523.21 | 34.04 | 24.64 | 24.67 | 5498.56 | 0.03 |
| | 08/13/15 | 5523.21 | 34.04 | 24.64 | 24.70 | 5498.56 | 0.06 |
| | 04/27/15 | 5523.21 | 34.04 | 24.77 | 24.87 | 5498.42 | 0.10 |
| | 08/19/19 | 5537.50 | 41.91 | 34.88 | 34.95 | 5502.61 | 0.07 |
| | 04/01/19 | 5537.50 | 41.77 | 35.39 | 35.68 | 5502.05 | 0.29 |
| | 08/01/18 | 5537.50 | 41.92 | NPP | 35.65 | 5501.85 | NPP |
| | 04/16/18 | 5537.50 | 41.92 | 35.49 | 35.50 | 5502.01 | 0.01 |
| RW-14 | 08/22/17 | 5537.50 | 41.94 | NPP | 35.07 | 5502.43 | NPP |
| KVV-14 | 04/17/17 | 5537.50 | 41.94 | 35.13 | 35.59 | 5502.28 | 0.46 |
| | 08/15/16 | 5537.50 | 41.94 | 34.79 | 34.83 | 5502.70 | 0.04 |
| | 04/15/16 | 5537.50 | 41.94 | 34.79 | 36.09 | 5502.45 | 1.30 |
| | 08/13/15 | 5537.50 | 41.94 | NPP | 34.92 | 5502.58 | NPP |
| | 04/27/15 | 5537.50 | 41.94 | NPP | 34.95 | 5502.55 | NPP |
| | 08/19/19 | 5536.83 | 42.25 | NPP | 34.88 | 5501.95 | NPP |
| | 04/01/19 | 5536.83 | 42.20 | NPP | 35.20 | 5501.63 | NPP |
| | 08/01/18 | 5536.83 | 42.22 | NPP | 35.40 | 5501.43 | NPP |
| | 04/16/18 | 5536.83 | 42.22 | NPP | 35.25 | 5501.58 | NPP |
| RW-15 | 08/22/17 | 5536.83 | 43.43 | NPP | 34.85 | 5501.98 | NPP |
| 1144-10 | 04/18/17 | 5536.83 | 43.43 | NPP | 34.90 | 5501.93 | NPP |
| | 08/15/16 | 5536.83 | 43.43 | NPP | 34.68 | 5502.15 | NPP |
| | 04/15/16 | 5536.83 | 43.43 | NPP | 34.89 | 5501.75 | NPP |
| | 08/13/15 | 5536.83 | 43.43 | NPP | 34.46 | 5501.71 | NPP |
| | 04/27/15 | 5536.83 | 43.43 | NPP | 34.75 | 5501.86 | NPP |
| | 08/19/19 | 5535.45 | 43.13 | NPP | 34.12 | 5501.33 | NPP |
| | 04/01/19 | 5535.45 | 43.05 | NPP | 34.32 | 5501.13 | NPP |
| | 08/01/18 | 5535.45 | 43.13 | NPP | 34.42 | 5501.03 | NPP |
| | 04/16/18 | 5535.45 | 43.16 | NPP | 34.26 | 5501.19 | NPP |
| RW-16 | 08/22/17 | 5535.45 | 41.48 | NPP | 33.94 | 5501.51 | NPP |
| 10 | 04/18/17 | 5535.45 | 41.48 | NPP | 33.90 | 5501.55 | NPP |
| | 08/15/16 | 5535.45 | 41.48 | NPP | 33.85 | 5501.60 | NPP |
| | 04/15/16 | 5535.45 | 41.48 | 33.87 | 33.90 | 5501.57 | 0.03 |
| | 08/13/15 | 5535.45 | 41.48 | 33.30 | 35.50 | 5501.71 | 2.20 |
| | 04/27/15 | 5535.45 | 41.48 | 33.83 | 34.15 | 5501.56 | 0.32 |

| Well ID | Date | Measuring Point Elevation | Total Well Depth | Depth To Product | Depth To Water | Corrected Groundwater Elevation | SPH Thickness |
|---------|----------|---------------------------------|------------------|---------------------|-------------------|---------------------------------------|------------------|
| | | (ft amsl) | (ft below TOC) | (ft below TOC) | (ft below TOC) | (ft amsl) | (ft) |
| | 08/19/19 | 5533.84 | 38.05 | NPP | 33.08 | 5500.76 | NPP |
| | 04/01/19 | 5533.84 | 38.37 | NPP | 32.15 | 5501.69 | NPP |
| | 08/01/18 | 5533.84 | 39.88 | NPP | 33.28 | 5500.56 | NPP |
| | 04/16/18 | 5533.84 | 40.10 | NPP | 33.08 | 5500.76 | NPP |
| RW-17 | 08/22/17 | 5533.84 | 41.89 | NPP | 32.85 | 5500.99 | NPP |
| 1244-17 | 04/18/17 | 5533.84 | 41.89 | NPP | 32.76 | 5501.08 | NPP |
| | 08/15/16 | 5533.84 | 41.89 | NPP | 32.94 | 5500.90 | NPP |
| | 04/15/16 | 5533.84 | 41.89 | NPP | 32.89 | 5500.95 | NPP |
| | 08/13/15 | 5533.84 | 41.89 | 32.67 | 32.68 | 5501.17 | 0.01 |
| | 04/27/15 | 5533.84 | 41.89 | 33.04 | 33.08 | 5500.79 | 0.04 |
| | 08/20/19 | 5529.38 | 37.71 | NPP | 29.83 | 5499.55 | NPP |
| | 04/01/19 | 5529.38 | 34.38 | NPP | 30.07 | 5499.31 | NPP |
| | 08/01/18 | 5529.38 | 34.40 | NPP | 30.08 | 5499.30 | NPP |
| | 04/16/18 | 5529.38 | 34.40 | NPP | 29.87 | 5499.51 | NPP |
| RW-18 | 08/23/17 | 5529.38 | 37.58 | NPP | 29.76 | 5499.62 | NPP |
| 1444-10 | 04/17/17 | 5529.38 | 37.58 | NPP | 29.71 | 5499.67 | NPP |
| | 08/16/16 | 5529.38 | 37.58 | NPP | 32.92 | 5496.46 | NPP |
| | 04/15/16 | 5529.38 | 37.58 | NPP | 29.84 | 5499.54 | NPP |
| | 08/13/15 | 5529.38 | 37.58 | NPP | 29.88 | 5499.50 | NPP |
| | 04/27/15 | 5529.38 | 37.58 | NPP | 30.02 | 5499.36 | NPP |
| | 08/20/19 | 5530.51 | 35.84 | NPP | 30.11 | 5500.40 | NPP |
| | 04/01/19 | 5530.51 | 35.70 | 30.11 | 30.12 | 5500.40 | 0.01 |
| | 08/01/18 | 5530.51 | 35.70 | 30.21 | 31.46 | 5500.05 | 1.25 |
| | 04/16/18 | 5530.51 | 35.60 | 30.10 | 30.37 | 5500.36 | 0.27 |
| RW-19 | 08/23/17 | 5530.51 | 36.64 | NPP | 29.86 | 5500.65 | NPP |
| 1000 | 04/17/17 | 5530.51 | 36.64 | 29.70 | 30.65 | 5500.62 | 0.95 |
| | 08/15/16 | 5530.51 | 36.64 | NPP | 31.16 | 5499.35 | NPP |
| | 04/15/16 | 5530.51 | 36.64 | NPP | 30.04 | 5500.47 | NPP |
| | 08/13/15 | 5530.51 | 36.64 | NPP | 29.96 | 5500.55 | NPP |
| | 04/27/15 | 5530.51 | 36.64 | NPP | 30.15 | 5500.36 | NPP |
| | 08/20/19 | 5524.44 | 35.35 | NPP | 25.75 | 5498.69 | NPP |
| | 04/01/19 | 5524.44 | 35.30 | NPP | 25.60 | 5498.84 | NPP |
| | 08/01/18 | 5524.44 | 35.32 | NPP | 25.65 | 5498.79 | NPP |
| | 04/16/18 | 5524.44 | 35.33 | NPP | 25.51 | 5498.93 | NPP |
| RW-22 | 08/22/17 | 5524.44 | 35.60 | NPP | 25.36 | 5499.08 | NPP |
| | 04/17/17 | 5524.44 | 35.60 | 25.37 | 25.39 | 5499.07 | 0.02 |
| | 08/16/16 | 5524.44 | 35.60 | 25.51 | 25.74 | 5498.88 | 0.23 |
| | 04/15/16 | 5524.44 | 35.60 | 25.50 | 25.73 | 5498.89 | 0.23 |
| | 08/13/15 | 5524.44 | 35.60 | 25.50 | 25.55 | 5498.93 | 0.05 |
| | 04/27/15 | 5524.44 | 35.60 | 25.70 | 25.80 | 5498.72 | 0.10 |
| | 08/20/19 | 5521.38 | 35.55 | NPP | 23.18 | 5498.20 | NPP |
| | 04/01/19 | 5521.38 | 35.55 | 23.14 | 23.16 | 5498.24 | 0.02 |
| | 08/01/18 | 5521.38 | 35.55 | 23.21 | 23.25 | 5498.16 | 0.04 |
| | 04/16/18 | 5521.38 | 35.55 | 23.20 | 23.25 | 5498.17 | 0.05 |
| RW-23 | 08/22/17 | 5521.38 | 35.53 | NPP | 23.09 | 5498.29 | NPP |
| | 04/17/17 | 5521.38 | 35.53 | 23.06 | 23.15 | 5498.30 | 0.09 |
| | 08/16/16 | 5521.38 | 35.53 | 22.81 | 22.93 | 5498.55 | 0.12 |
| | 04/15/16 | 5521.38 | 35.53 | 23.13 | 23.39 | 5498.20 | 0.26 |
| | 08/13/15 | 5521.38 | 35.53 | 23.80 | 23.82 | 5497.58 | 0.02 |
| | 04/27/15 | 5521.38 | 35.53 | NPP | 23.70 | 5497.68 | NPP |

| | | Measuring | Total Well | Depth To | Depth To | Corrected | SPH |
|-----------|----------|----------------------|----------------|----------------|----------------|----------------------|-----------|
| Well ID | Date | Point | Depth | Product | Water | Groundwater | Thickness |
| | Duto | Elevation | (ft below TOC) | (ft below TOC) | (ft below TOC) | Elevation | (ft) |
| | 08/19/19 | (ft amsl) 5527.93 | 37.07 | 28.71 | 28.99 | (ft amsl) 5499.16 | 0.28 |
| | 04/01/19 | 5527.93 | 36.98 | 29.16 | 29.19 | 5499.16 | 0.28 |
| | 08/01/19 | | 37.00 | 29.16 | | | 0.03 |
| | 04/16/18 | 5527.93 5527.93 | 37.00 | 29.19 | 29.98 28.95 | 5498.58 5498.99 | 0.79 |
| | 08/22/17 | 5527.93 | 36.99 | 29.09 | 29.79 | 5498.70 | 0.01 |
| RW-28 | 04/18/17 | 5527.93 | 36.99 | 28.96 | 30.07 | 5498.75 | 1.11 |
| | 08/16/16 | 5527.93 | 36.99 | 29.10 | 29.36 | 5498.78 | 0.26 |
| | 04/15/16 | 5527.93 | 36.99 | 29.05 | 29.06 | 5498.88 | 0.20 |
| | 08/13/15 | 5527.93 | 36.99 | 26.92 | 26.93 | 5501.01 | 0.01 |
| | 04/27/15 | 5527.93 | 36.99 | 29.18 | 29.76 | 5498.63 | 0.58 |
| | 08/20/19 | 5527.48 | 32.14 | NPP | 27.05 | 5500.43 | NPP |
| | 04/01/19 | 5527.48 | 31.95 | NPP | 27.06 | 5500.42 | NPP |
| | 08/01/18 | 5527.48 | 31.97 | NPP | 27.36 | 5500.12 | NPP |
| | 04/16/18 | 5527.48 | 31.95 | NPP | 27.11 | 5500.37 | NPP |
| | 08/23/17 | 5527.48 | 31.95 | NPP | 27.00 | 5500.48 | NPP |
| RW-42 | 04/17/17 | 5527.48 | 32.02 | NPP | 26.96 | 5500.52 | NPP |
| | 08/15/16 | 5527.48 | 32.02 | NPP | 27.10 | 5500.38 | NPP |
| | 04/15/16 | 5527.48 | 32.02 | NPP | 27.03 | 5500.45 | NPP |
| | 08/13/15 | 5527.48 | 32.02 | 26.92 | 26.93 | 5500.56 | 0.01 |
| | 04/27/15 | 5527.48 | 32.02 | 27.15 | 27.18 | 5500.32 | 0.03 |
| | 08/20/19 | 5520.02 | 24.25 | 20.38 | 20.49 | 5499.62 | 0.11 |
| | 04/01/19 | 5520.02 | 24.16 | 20.58 | 20.73 | 5499.41 | 0.15 |
| | 08/01/18 | 5520.02 | 24.19 | 20.72 | 20.74 | 5499.30 | 0.02 |
| | 04/16/18 | 5520.02 | 24.18 | NPP | 20.60 | 5499.42 | NPP |
| | 08/22/17 | 5520.02 | 24.20 | NPP | 20.40 | 5499.62 | NPP |
| RW-43 | 04/17/17 | 5520.02 | 24.03 | NPP | 20.45 | 5499.57 | NPP |
| | 08/15/16 | 5520.02 | 24.03 | NPP | 20.44 | 5499.58 | NPP |
| | 04/15/16 | 5520.02 | 24.03 | NPP | 20.51 | 5499.51 | NPP |
| | 08/13/15 | 5520.02 | 24.03 | 20.30 | 20.33 | 5499.71 | 0.03 |
| | 04/27/15 | 5520.02 | 24.03 | 20.53 | 20.75 | 5499.45 | 0.22 |
| | 08/19/19 | 5506.62 | 12.33 | NPP | 12.05 | 5494.57 | NPP |
| | 04/02/19 | 5506.62 | 12.29 | NPP | 11.62 | 5495.00 | NPP |
| | 08/01/18 | 5506.62 | 12.30 | NPP | 12.10 | 5494.52 | NPP |
| | 04/17/18 | 5506.62 | 12.29 | NPP | 11.95 | 5494.67 | NPP |
| 014/ 0 00 | 08/23/17 | 5506.62 | 12.03 | NPP | 11.91 | 5494.71 | NPP |
| OW 0+60 | 04/18/17 | 5506.62 | 12.26 | NPP | 11.66 | 5494.96 | NPP |
| | 08/16/16 | 5506.62 | 12.26 | NPP | 11.14 | 5495.48 | NPP |
| | 04/15/16 | 5506.62 | 12.26 | NPP | 11.78 | 5494.84 | NPP |
| | 08/13/15 | 5506.62 | 12.26 | NPP | 10.77 | 5495.85 | NPP |
| | 04/21/15 | 5506.62 | 12.26 | NPP | 11.24 | 5495.38 | NPP |
| | 08/19/19 | 5508.03 | 14.43 | NPP | NWP | NWP | NPP |
| | 04/02/19 | 5508.03 | 14.36 | NPP | 13.72 | 5494.31 | NPP |
| | 08/01/18 | 5508.03 | 14.38 | 14.33 | NWP | NWP | NPP |
| | 04/17/18 | 5508.03 | 14.36 | 14.23 | 14.25 | 5493.80 | 0.02 |
| OW 1.50 | 08/23/17 | 5508.03 | 14.37 | NPP | 14.05 | 5493.98 | NPP |
| OW 1+50 | 04/18/17 | 5508.03 | 14.36 | NPP | 13.74 | 5494.29 | NPP |
| | 08/16/16 | 5508.03 | 14.36 | NPP | 13.06 | 5494.97 | NPP |
| | 04/15/16 | 5508.03 | 14.36 | NPP | 13.72 | 5494.31 | NPP |
| | 08/13/15 | 5508.03 | 14.36 | NPP | 12.62 | 5495.41 | NPP |
| | 04/21/15 | 5508.03 | 14.36 | NPP | 13.24 | 5494.79 | NPP |

| Well ID | Date | Measuring Point Elevation | Total Well Depth | Depth To Product | Depth To Water | Corrected Groundwater Elevation | SPH Thickness |
|----------|----------|---------------------------------|------------------|---------------------|-------------------|---------------------------------------|------------------|
| | | (ft amsl) | (ft below TOC) | (ft below TOC) | (ft below TOC) | (ft amsl) | (ft) |
| | 08/19/19 | 5507.31 | 15.15 | NPP | 14.07 | 5493.24 | NPP |
| | 04/02/19 | 5507.31 | 15.10 | NPP | 13.45 | 5493.86 | NPP |
| OW 3+85 | 08/01/18 | 5507.31 | 15.10 | NPP | 13.92 | 5493.39 | NPP |
| | 04/17/18 | 5507.31 | 15.08 | NPP | 13.73 | 5493.58 | NPP |
| | 08/23/17 | 5507.31 | 15.08 | NPP | 13.56 | 5493.75 | NPP |
| OW 3+03 | 04/17/17 | 5507.31 | 15.06 | NPP | 13.14 | 5494.17 | NPP |
| | 08/15/16 | 5507.31 | 15.06 | NPP | 12.83 | 5494.48 | NPP |
| | 04/15/16 | 5507.31 | 15.06 | NPP | 13.15 | 5494.16 | NPP |
| | 08/13/15 | 5507.31 | 15.06 | NPP | 12.31 | 5495.00 | NPP |
| | 04/21/15 | 5507.31 | 15.06 | NPP | 12.80 | 5494.51 | NPP |
| | 08/19/19 | 5507.59 | 13.81 | NPP | 13.49 | 5494.10 | NPP |
| | 04/02/19 | 5507.59 | 13.78 | NPP | 13.65 | 5493.94 | NPP |
| | 08/01/18 | 5507.59 | 13.78 | NPP | 13.57 | 5494.02 | NPP |
| | 04/17/18 | 5507.59 | 13.78 | NPP | 13.65 | 5493.94 | NPP |
| OW 5+50 | 08/23/17 | 5507.59 | 13.77 | NPP | 13.41 | 5494.18 | NPP |
| 000 3+30 | 04/17/17 | 5507.59 | 13.67 | NPP | 13.42 | 5494.17 | NPP |
| | 08/15/16 | 5507.59 | 13.67 | NPP | 13.29 | 5494.30 | NPP |
| | 04/15/16 | 5507.59 | 13.67 | NPP | 13.43 | 5494.16 | NPP |
| | 08/13/15 | 5507.59 | 13.67 | NPP | 13.32 | 5494.27 | NPP |
| | 04/21/15 | 5507.59 | 13.67 | NPP | 13.28 | 5494.31 | NPP |
| | 08/19/19 | 5504.78 | 16.50 | NPP | NWP | NWP | NPP |
| | 04/02/19 | 5504.78 | 16.46 | NPP | 16.45 | 5488.33 | NPP |
| | 08/01/18 | 5504.78 | 16.47 | NPP | NWP | NWP | NPP |
| | 04/17/18 | 5504.78 | 16.47 | NPP | NWP | NWP | NPP |
| OW 6+70 | 08/24/17 | 5504.78 | 16.48 | NPP | NWP | NWP | NPP |
| OW 0170 | 04/17/17 | 5504.78 | 14.67 | NPP | NWP | NWP | NPP |
| | 08/15/16 | 5504.78 | 14.67 | NPP | NWP | NWP | NPP |
| | 04/15/16 | 5504.78 | 14.67 | NPP | NWP | NWP | NPP |
| | 08/13/15 | 5504.78 | 14.67 | NPP | NWP | NWP | NPP |
| | 04/21/15 | 5504.78 | 14.67 | NPP | NWP | NWP | NPP |
| | 08/19/19 | 5506.53 | 16.10 | NPP | 15.09 | 5491.44 | NPP |
| | 04/02/19 | 5506.53 | 16.02 | NPP | 13.58 | 5492.95 | NPP |
| | 08/01/18 | 5506.53 | 16.02 | NPP | 15.54 | 5490.99 | NPP |
| | 04/17/18 | 5506.53 | 16.03 | NPP | 15.55 | 5490.98 | NPP |
| OW 8+10 | 08/24/17 | 5506.53 | 16.01 | NPP | 15.25 | 5491.28 | NPP |
| 011 0110 | 04/17/17 | 5506.53 | 15.99 | NPP | 13.99 | 5492.54 | NPP |
| | 08/15/16 | 5504.78 | 15.99 | NPP | 14.69 | 5490.09 | NPP |
| | 04/15/16 | 5504.78 | 15.99 | NPP | NWP | NWP | NPP |
| | 08/13/15 | 5506.53 | 15.99 | NPP | NWP | NWP | NPP |
| | 04/21/15 | 5506.53 | 15.99 | NPP | NWP | NWP | NPP |
| | 08/19/19 | 5506.70 | 16.65 | NPP | 12.63 | 5494.07 | NPP |
| | 04/02/19 | 5506.70 | 16.59 | NPP | 12.74 | 5493.96 | NPP |
| | 08/01/18 | 5506.70 | 16.60 | NPP | 12.65 | 5494.05 | NPP |
| | 04/17/18 | 5506.70 | 16.60 | NPP | 12.64 | 5494.06 | NPP |
| OW 11+15 | 08/24/17 | 5506.70 | 16.59 | NPP | 12.53 | 5494.17 | NPP |
| | 04/17/17 | 5506.70 | 16.59 | NPP | 12.56 | 5494.14 | NPP |
| | 08/15/16 | 5506.70 | 16.59 | NPP | 12.53 | 5494.17 | NPP |
| | 04/15/16 | 5506.70 | 16.59 | NPP | 12.65 | 5494.05 | NPP |
| | 08/13/15 | 5506.70 | 16.59 | NPP | 12.47 | 5494.23 | NPP |
| | 04/21/15 | 5506.70 | 16.59 | NPP | 12.59 | 5494.11 | NPP |

| | | Measuring | Total Well | Depth To | Depth To | Corrected | SPH |
|-----------|----------|----------------------|----------------|----------------|----------------|------------------|-----------|
| Well ID | Date | Point | Depth | Product | Water | Groundwater | Thickness |
| | | Elevation (ft.omo/) | (ft below TOC) | (ft below TOC) | (ft below TOC) | Elevation | (ft) |
| | 08/19/19 | (ft amsl) 5508.14 | 13.03 | NPP | NWP | (ft amsl) NWP | NPP |
| | 04/02/19 | 5508.14 | 12.98 | NPP | NWP | NWP | NPP |
| | 08/01/18 | 5508.14 | 12.99 | NPP | NWP | NWP | NPP |
| | 04/17/18 | 5508.14 | 12.97 | NPP | NWP | NWP | NPP |
| | 08/24/17 | 5508.14 | 12.96 | NPP | NWP | NWP | NPP |
| OW 14+10 | 04/17/17 | 5508.14 | 12.96 | NPP | NWP | NWP | NPP |
| | 08/15/16 | 5508.14 | 12.96 | NPP | NWP | NWP | NPP |
| | 04/15/16 | 5508.14 | 12.96 | NPP | NWP | NWP | NPP |
| | 08/13/15 | 5508.14 | 12.96 | NPP | NWP | NWP | NPP |
| | 04/21/15 | 5508.14 | 12.96 | NPP | NWP | NWP | NPP |
| | 08/19/19 | 5508.43 | 15.30 | NPP | 12.84 | 5495.59 | NPP |
| | 04/02/19 | 5508.43 | 15.25 | NPP | 12.71 | 5495.72 | NPP |
| | 08/01/18 | 5508.43 | 15.25 | NPP | 12.98 | 5495.45 | NPP |
| | 04/17/18 | 5508.43 | 15.25 | NPP | 13.43 | 5495.00 | NPP |
| | 08/24/17 | 5508.43 | 15.25 | NPP | 13.05 | 5495.38 | NPP |
| OW 16+60 | 04/17/17 | 5508.43 | 15.21 | NPP | 12.73 | 5495.70 | NPP |
| | 08/15/16 | 5508.43 | 15.21 | NPP | 13.04 | 5495.39 | NPP |
| | 04/15/16 | 5508.43 | 15.21 | NPP | 13.06 | 5495.37 | NPP |
| | 08/13/15 | 5508.43 | 15.21 | NPP | 12.78 | 5495.65 | NPP |
| | 04/21/15 | 5508.43 | 15.21 | NPP | 12.78 | 5495.65 | NPP |
| | 08/19/19 | 5508.03 | 13.05 | NPP | 11.94 | 5496.09 | NPP |
| | 04/02/19 | 5508.03 | 13.01 | NPP | 12.08 | 5495.95 | NPP |
| | 08/01/18 | 5508.03 | 13.00 | NPP | NWP | NWP | NPP |
| | 04/17/18 | 5508.03 | 13.00 | NPP | NWP | NWP | NPP |
| 014/40.50 | 08/24/17 | 5508.03 | 13.00 | NPP | 12.88 | 5495.15 | NPP |
| OW 19+50 | 04/17/17 | 5508.03 | 13.00 | NPP | 11.85 | 5496.18 | NPP |
| | 08/15/16 | 5508.03 | 13.00 | NPP | 12.95 | 5495.08 | NPP |
| | 04/15/16 | 5508.03 | 13.00 | NPP | 12.69 | 5495.34 | NPP |
| | 08/13/15 | 5508.03 | 13.00 | NPP | NWP | NWP | NPP |
| | 04/21/15 | 5508.03 | 13.00 | NPP | 12.92 | 5495.11 | NPP |
| | 08/19/19 | 5506.91 | 14.22 | NPP | 13.12 | 5493.79 | NPP |
| | 04/02/19 | 5506.91 | 14.17 | NPP | 10.67 | 5496.24 | NPP |
| | 08/01/18 | 5506.91 | 14.18 | NPP | 13.32 | 5493.59 | NPP |
| | 04/17/18 | 5506.91 | 14.17 | NPP | 12.39 | 5494.52 | NPP |
| OW 22+00 | 08/24/17 | 5506.91 | 14.15 | NPP | 12.91 | 5494.00 | NPP |
| OW 22100 | 04/17/17 | 5506.91 | 14.16 | NPP | 10.59 | 5496.32 | NPP |
| | 08/15/16 | 5506.91 | 14.16 | NPP | 10.88 | 5496.03 | NPP |
| | 04/15/16 | 5506.91 | 14.16 | NPP | 12.05 | 5494.86 | NPP |
| | 08/13/15 | 5506.91 | 14.16 | NPP | 10.80 | 5496.11 | NPP |
| | 04/21/15 | 5506.91 | 14.16 | NPP | 11.37 | 5495.54 | NPP |
| | 08/19/19 | 5514.12 | 18.41 | NPP | 16.78 | 5497.34 | NPP |
| OW 23+10 | 04/02/19 | 5514.12 | 18.34 | NPP | 16.53 | 5497.59 | NPP |
| | 08/01/18 | 5514.12 | 18.35 | NPP | 16.75 | 5497.37 | NPP |
| | 04/17/18 | 5514.12 | 18.35 | NPP | 16.58 | 5497.54 | NPP |
| | 08/24/17 | 5514.12 | 18.34 | NPP | 16.65 | 5497.47 | NPP |
| | 04/17/17 | 5514.12 | 18.34 | NPP | 16.46 | 5497.66 | NPP |
| | 08/15/16 | 5514.12 | 18.34 | NPP | 16.37 | 5497.75 | NPP |
| | 04/15/16 | 5514.12 | 18.34 | NPP | 16.48 | 5497.64 | NPP |
| | 08/13/15 | 5514.12 | 18.34 | NPP | 16.46 | 5497.66 | NPP |
| | 04/21/15 | 5514.12 | 18.34 | NPP | 16.40 | 5497.72 | NPP |

| | | Measuring | Total Wall | Donth To | Donth To | Corrected | CDU |
|----------|----------|----------------------|---------------------|---------------------|-------------------|----------------------|------------------|
| Well ID | Date | Point | Total Well Depth | Depth To Product | Depth To Water | Groundwater | SPH Thickness |
| Well ID | Duto | Elevation | (ft below TOC) | (ft below TOC) | (ft below TOC) | Elevation | (ft) |
| | 08/19/19 | (ft amsl) 5515.18 | 18.15 | NPP | 17.71 | (ft amsl) 5497.47 | NPP |
| | 04/02/19 | 5515.18 | 18.10 | NPP | 17.45 | 5497.73 | NPP |
| | 08/01/18 | 5515.18 | 18.10 | NPP | 17.58 | 5497.60 | NPP |
| | 04/17/18 | 5515.18 | 18.08 | NPP | 17.42 | 5497.76 | NPP |
| | 08/24/17 | 5515.18 | 18.01 | NPP | 17.47 | 5497.71 | NPP |
| OW 23+90 | 04/17/17 | 5515.18 | 18.01 | NPP | 17.37 | 5497.81 | NPP |
| | 08/15/16 | 5515.18 | 18.01 | NPP | 17.25 | 5497.93 | NPP |
| | 04/15/16 | 5515.18 | 18.01 | NPP | 17.34 | 5497.84 | NPP |
| | 08/13/15 | 5515.18 | 18.01 | NPP | 17.30 | 5497.88 | NPP |
| | 04/21/15 | 5515.18 | 18.01 | NPP | 17.28 | 5497.90 | NPP |
| | 08/19/19 | 5509.00 | 14.05 | NPP | 11.25 | 5497.75 | NPP |
| | 04/02/19 | 5509.00 | 14.00 | NPP | 11.10 | 5497.90 | NPP |
| | 08/01/18 | 5509.00 | 13.98 | NPP | 11.20 | 5497.80 | NPP |
| | 04/17/18 | 5509.00 | 13.98 | NPP | 11.10 | 5497.90 | NPP |
| | 08/24/17 | 5509.00 | 14.00 | NPP | 11.17 | 5497.83 | NPP |
| OW 25+70 | 04/17/17 | 5509.00 | 13.98 | NPP | 10.97 | 5498.03 | NPP |
| | 08/15/16 | 5509.00 | 13.98 | NPP | 10.90 | 5498.10 | NPP |
| | 04/15/16 | 5509.00 | 13.98 | NPP | 10.97 | 5498.03 | NPP |
| | 08/13/15 | 5509.00 | 13.98 | NPP | 10.97 | 5498.03 | NPP |
| | 04/21/15 | 5509.00 | 13.98 | NPP | 10.92 | 5498.08 | NPP |
| | 08/19/19 | 5506.68 | 14.04 | NPP | 8.39 | 5498.29 | NPP |
| | 04/02/19 | 5506.68 | 13.97 | NPP | 7.92 | 5498.76 | NPP |
| | 08/01/18 | 5506.68 | 14.10 | NPP | 8.76 | 5497.92 | NPP |
| | 04/17/18 | | 13.98 | NPP | 8.41 | | NPP |
| | 08/22/17 | 5506.68 5506.68 | 14.09 | NPP | 8.49 | 5498.27 5498.19 | NPP |
| CW 0+60 | 04/18/17 | 5506.68 | 14.09 | NPP | 8.00 | 5498.68 | NPP |
| | 08/16/16 | 5506.68 | 14.09 | NPP | 7.99 | 5498.69 | NPP |
| | 04/15/16 | 5506.68 | 14.09 | NPP | 8.88 | 5497.80 | NPP |
| | 08/13/15 | 5506.68 | 14.09 | NPP | 8.23 | 5498.45 | NPP |
| | 04/21/15 | 5506.68 | 14.09 | NPP | 8.24 | 5498.44 | NPP |
| | 08/19/19 | 5505.13 | 13.31 | NPP | 6.70 | 5498.43 | NPP |
| | 04/02/19 | 5505.13 | 13.25 | NPP | 6.38 | 5498.75 | NPP |
| | 08/01/18 | 5505.13 | 13.40 | NPP | 7.05 | 5498.08 | NPP |
| | 04/17/18 | 5505.13 | 13.35 | NPP | 6.75 | 5498.38 | NPP |
| | 08/23/17 | 5505.13 | 13.38 | NPP | 6.80 | 5498.33 | NPP |
| CW 1+50 | 04/18/17 | 5505.13 | 13.74 | NPP | 6.51 | 5498.62 | NPP |
| | 08/16/16 | 5505.13 | 13.74 | NPP | 6.59 | 5498.54 | NPP |
| | 04/15/16 | 5505.13 | 13.74 | NPP | 7.22 | 5497.91 | NPP |
| | 08/13/15 | 5505.13 | 13.74 | NPP | 6.84 | 5498.29 | NPP |
| | 04/21/15 | 5505.13 | 13.74 | NPP | 6.77 | 5498.36 | NPP |
| | 08/19/19 | 5503.87 | 13.74 | NPP | 5.55 | 5498.32 | NPP |
| | 04/02/19 | 5503.87 | 13.10 | NPP | 5.48 | 5498.39 | NPP |
| | 08/01/18 | 5503.87 | 13.10 | NPP | 5.45 | 5498.42 | NPP |
| | 04/17/18 | 5503.87 | 13.12 | NPP | 5.65 | 5498.22 | NPP |
| | 08/23/17 | 5503.87 | 13.12 | NPP | 5.60 | 5498.27 | NPP |
| CW 3+85 | 04/17/17 | 5503.87 | 13.11 | NPP | 5.48 | 5498.39 | NPP |
| | 08/15/16 | 5503.87 | 13.11 | NPP | 5.52 | 5498.35 | NPP |
| | 04/15/16 | | | NPP | | | NPP |
| | 08/13/15 | 5503.87 | 13.11 | NPP | 5.91 5.70 | 5497.96 5498.17 | NPP |
| | 04/21/15 | 5503.87 | 13.11 | NPP | | 5498.17 | NPP |
| | 04/21/15 | 5503.87 | 13.11 | INPP | 5.60 | 5498.27 | INPP |

| | | Measuring | Total Wall | Donth To | Donth To | Corrected | SPH |
|----------|----------------------|--------------------|---------------------|---------------------|-------------------|--------------------|------------------|
| Well ID | Date | Point | Total Well Depth | Depth To Product | Depth To Water | Groundwater | SPH Thickness |
| Well ID | Dute | Elevation | (ft below TOC) | (ft below TOC) | (ft below TOC) | Elevation | (ft) |
| | 08/19/19 | (ft amsl) | • • | NPP | , , | (ft amsl) | NPP |
| | 04/02/19 | 5503.76 5503.76 | 12.31 12.22 | NPP | 6.43 | 5497.33 5497.43 | NPP |
| | | | | NPP | | | NPP |
| | 08/01/18 04/17/18 | 5503.76 5503.76 | 12.25 12.23 | NPP | 6.55 6.40 | 5497.21 5497.36 | NPP |
| | | | 12.23 | NPP | | | NPP |
| CW 5+50 | 08/23/17 | 5503.76 5503.76 | 12.27 | NPP | 6.45 | 5497.31 5497.40 | NPP |
| | 08/15/16 | 5503.76 | 12.27 | NPP | 6.30 | 5497.46 | NPP |
| | 04/15/16 | 5503.76 | 12.27 | NPP | 6.39 | 5497.40 | NPP |
| | 08/13/15 | 5503.76 | 12.27 | NPP | 6.38 | 5497.38 | NPP |
| | 04/21/15 | 5503.76 | 12.27 | NPP | 6.35 | 5497.41 | NPP |
| | 08/19/19 | 5503.84 | 6.75 | NPP | NWP | NWP | NPP |
| | 04/02/19 | 5503.84 | 6.75 | NPP | 6.65 | 5497.19 | NPP |
| | | | | | NWP | | NPP |
| | 08/01/18 04/17/18 | 5503.84 | 6.80 | NPP NPP | 6.72 | NWP 5497.12 | NPP |
| | 08/24/17 | 5503.84 5503.84 | 11.50 | NPP | 6.72 | 5497.12 | NPP |
| CW 6+70 | 04/17/17 | | 11.45 | NPP | 6.61 | | NPP |
| | 08/15/16 | 5503.84 5503.84 | 11.45 | NPP | 6.54 | 5497.23 5497.30 | NPP |
| | 04/15/16 | 5503.84 | 11.45 | NPP | 6.61 | 5497.23 | NPP |
| | | | | NPP | | | NPP |
| | 08/13/15 04/21/15 | 5503.84 | 11.45 11.45 | NPP | 6.38 | 5497.46 5497.21 | NPP |
| | | 5503.84 | | NPP | 7.71 | | NPP |
| | 08/19/19 | 5504.02 | 11.39 | NPP | 7.71 | 5496.31 | NPP |
| | 04/02/19 08/01/18 | 5504.02 5504.02 | 11.35 11.37 | NPP | 7.87 | 5496.38 5496.15 | NPP |
| | | | 11.35 | NPP | | | NPP |
| | 04/17/18 08/24/17 | 5504.02 5504.02 | 11.35 | NPP | 7.70 7.69 | 5496.32 5496.33 | NPP |
| CW 8+10 | 04/17/17 | 5504.02 | 11.63 | NPP | 7.45 | 5496.57 | NPP |
| | 08/15/16 | 5504.02 | 11.63 | NPP | 7.45 | 5496.67 | NPP |
| | 04/15/16 | 5504.02 | 11.63 | NPP | 7.56 | 5496.46 | NPP |
| | 08/13/15 | 5504.02 | 11.63 | NPP | 7.48 | 5496.54 | NPP |
| | 04/21/15 | 5504.02 | 11.63 | NPP | 7.43 | 5496.59 | NPP |
| | 08/19/19 | 5503.80 | 12.71 | 7.99 | 8.10 | 5495.79 | 0.11 |
| | 04/02/19 | 5503.80 | 12.63 | 7.96 | 7.99 | 5495.83 | 0.03 |
| | 08/01/18 | 5503.80 | 12.61 | NPP | 8.15 | 5495.65 | NPP |
| | 04/17/18 | 5503.80 | 12.61 | NPP | 7.95 | 5495.85 | NPP |
| | 08/24/17 | 5503.80 | 12.60 | NPP | 7.92 | 5495.88 | NPP |
| CW 8+45 | 04/17/17 | 5503.80 | 12.60 | NPP | 7.67 | 5496.13 | NPP |
| | 08/15/16 | 5503.80 | 12.60 | NPP | 7.51 | 5496.29 | NPP |
| | 04/15/16 | 5503.80 | 12.60 | NPP | 7.70 | 5496.10 | NPP |
| | 08/13/15 | 5503.80 | 12.60 | NPP | 7.65 | 5496.15 | NPP |
| | 04/21/15 | 5503.80 | 12.60 | NPP | 7.68 | 5496.12 | NPP |
| | 08/19/19 | 5503.95 | 12.35 | 5.91 | 5.97 | 5498.03 | 0.06 |
| | 04/02/19 | 5503.95 | 12.26 | 5.91 | 5.94 | 5498.03 | 0.03 |
| | 08/01/18 | 5503.95 | 12.29 | 6.10 | 6.14 | 5497.84 | 0.04 |
| | 04/17/18 | 5503.95 | 12.29 | NPP | 6.00 | 5497.95 | NPP |
| | 08/24/17 | 5503.95 | 12.40 | 5.91 | 6.13 | 5498.00 | 0.22 |
| CW 11+15 | 04/17/17 | 5503.95 | 12.27 | 5.81 | 6.23 | 5498.06 | 0.42 |
| | 08/15/16 | 5503.95 | 12.27 | NPP | 5.99 | 5497.96 | NPP |
| | 04/15/16 | 5503.95 | 12.27 | 5.91 | 6.36 | 5497.95 | 0.45 |
| | 08/13/15 | 5503.95 | 12.27 | 5.87 | 6.85 | 5497.88 | 0.98 |
| | 04/21/15 | 5503.95 | 12.27 | 5.97 | 7.05 | 5497.76 | 1.08 |
| | , .0 | | | J | | 2.00 | |

| Well ID | Date | Measuring Point Elevation | Total Well Depth | Depth To Product | Depth To Water | Corrected Groundwater Elevation | SPH Thickness |
|-------------|----------|---------------------------------|---------------------|---------------------|-------------------|---------------------------------------|------------------|
| | | (ft amsl) | (ft below TOC) | (ft below TOC) | (ft below TOC) | (ft amsl) | (ft) |
| | 08/19/19 | 5504.39 | 13.12 | NPP | 6.52 | 5497.87 | NPP |
| | 04/02/19 | 5504.39 | 13.04 | NPP | 6.35 | 5498.04 | NPP |
| | 08/01/18 | 5504.39 | 13.04 | NPP | 6.48 | 5497.91 | NPP |
| | 04/17/18 | 5504.39 | 13.04 | NPP | 6.52 | 5497.87 | NPP |
| 0)4/ 4 4 40 | 08/24/17 | 5504.39 | 13.05 | NPP | 6.50 | 5497.89 | NPP |
| CW 14+10 | 04/17/17 | 5504.39 | 13.05 | NPP | 6.39 | 5498.00 | NPP |
| | 08/15/16 | 5504.39 | 13.05 | NPP | 6.29 | 5498.10 | NPP |
| | 04/15/16 | 5504.39 | 13.05 | NPP | 6.25 | 5498.14 | NPP |
| | 08/13/15 | 5504.39 | 13.05 | NPP | 6.44 | 5497.95 | NPP |
| | 04/21/15 | 5504.39 | 13.05 | NPP | 6.38 | 5498.01 | NPP |
| | 08/19/19 | 5504.32 | 12.97 | NPP | 7.39 | 5496.93 | NPP |
| | 04/02/19 | 5504.32 | 12.92 | NPP | 6.23 | 5498.09 | NPP |
| | 08/01/18 | 5504.32 | 12.88 | NPP | 6.30 | 5498.02 | NPP |
| | 04/17/18 | 5504.32 | 12.88 | NPP | 6.33 | 5497.99 | NPP |
| 0)4/40.00 | 08/24/17 | 5504.32 | 12.86 | NPP | 6.24 | 5498.08 | NPP |
| CW 16+60 | 04/17/17 | 5504.32 | 12.86 | NPP | 6.20 | 5498.12 | NPP |
| | 08/15/16 | 5504.32 | 12.86 | NPP | 6.09 | 5498.23 | NPP |
| | 04/15/16 | 5504.32 | 12.86 | NPP | 6.20 | 5498.12 | NPP |
| | 08/13/15 | 5504.32 | 12.86 | NPP | 6.23 | 5498.09 | NPP |
| | 04/21/15 | 5504.32 | 12.86 | NPP | 6.18 | 5498.14 | NPP |
| | 08/19/19 | 5504.52 | 10.05 | NPP | 6.39 | 5498.13 | NPP |
| | 04/02/19 | 5504.52 | 10.00 | NPP | 6.24 | 5498.28 | NPP |
| | 08/01/18 | 5504.52 | 9.97 | NPP | 6.30 | 5498.22 | NPP |
| | 04/17/18 | 5504.52 | 9.97 | NPP | 6.30 | 5498.22 | NPP |
| C)M 40 . F0 | 08/24/17 | 5504.52 | 9.99 | NPP | 6.25 | 5498.27 | NPP |
| CW 19+50 | 04/17/17 | 5504.52 | 9.99 | NPP | 6.18 | 5498.34 | NPP |
| | 08/15/16 | 5504.52 | 9.99 | NPP | 6.18 | 5498.34 | NPP |
| | 04/15/16 | 5504.52 | 9.99 | NPP | 6.16 | 5498.36 | NPP |
| | 08/13/15 | 5504.52 | 9.99 | NPP | 6.23 | 5498.29 | NPP |
| | 04/21/15 | 5504.52 | 9.99 | NPP | 6.24 | 5498.28 | NPP |
| | 08/19/19 | 5508.04 | 12.43 | NPP | 8.83 | 5499.21 | NPP |
| | 04/02/19 | 5508.04 | 12.35 | NPP | 8.84 | 5499.20 | NPP |
| | 08/01/18 | 5508.04 | 12.35 | NPP | 8.96 | 5499.08 | NPP |
| | 04/17/18 | 5508.04 | 12.35 | NPP | 8.91 | 5499.13 | NPP |
| CW 22+00 | 08/24/17 | 5508.04 | 12.34 | NPP | 8.81 | 5499.23 | NPP |
| OW 22100 | 04/17/17 | 5508.04 | 12.34 | NPP | 8.71 | 5499.33 | NPP |
| | 08/15/16 | 5508.04 | 12.34 | NPP | 8.57 | 5499.47 | NPP |
| | 04/15/16 | 5508.04 | 12.34 | NPP | 8.73 | 5499.31 | NPP |
| | 08/13/15 | 5508.04 | 12.34 | NPP | 8.56 | 5499.48 | NPP |
| | 04/21/15 | 5508.04 | 12.34 | NPP | 8.69 | 5499.35 | NPP |
| | 08/19/19 | 5510.04 | 14.82 | NPP | 10.33 | 5499.71 | NPP |
| | 04/02/19 | 5510.04 | 14.64 | NPP | 10.40 | 5499.64 | NPP |
| | 08/01/18 | 5510.04 | 14.80 | NPP | 10.60 | 5499.44 | NPP |
| | 04/17/18 | 5510.04 | 14.80 | NPP | 10.55 | 5499.49 | NPP |
| CW 23+10 | 08/24/17 | 5510.04 | 14.65 | NPP | 7.77 | 5502.27 | NPP |
| 3 20. 10 | 04/17/17 | 5510.04 | 14.65 | NPP | 10.32 | 5499.72 | NPP |
| | 08/15/16 | 5508.04 | 14.65 | NPP | 10.14 | 5497.90 | NPP |
| | 04/15/16 | 5508.04 | 14.65 | NPP | 10.31 | 5497.73 | NPP |
| | 08/13/15 | 5510.04 | 14.65 | NPP | 10.10 | 5499.94 | NPP |
| | 04/21/15 | 5510.04 | 14.65 | NPP | 10.28 | 5499.76 | NPP |

| | | Measuring | | | | Corrected | | | | |
|-----------|----------|-----------|-------------------------|------------------------|-------------------------|-------------|-------------------|--|--|--|
| W-II ID | D-1- | Point | Total Well | Depth To | Depth To | Groundwater | SPH | | | |
| Well ID | Date | Elevation | Depth (ft below TOC) | Product (ft below TOC) | Water (ft below TOC) | Elevation | Thickness (ft) | | | |
| | | (ft amsl) | (It below TOC) | , | (It below TOC) | (ft amsl) | | | | |
| | 08/19/19 | 5507.32 | 11.81 | NPP | 7.79 | 5499.53 | NPP | | | |
| | 04/02/19 | 5507.32 | 11.77 | NPP | 7.85 | 5499.47 | NPP | | | |
| | 08/01/18 | 5507.32 | 11.70 | NPP | 7.95 | 5499.37 | NPP | | | |
| | 04/17/18 | 5507.32 | 11.71 | NPP | 7.95 | 5499.37 | NPP | | | |
| CW 23+90 | 08/24/17 | 5507.32 | 11.72 | NPP | 8.10 | 5499.22 | NPP | | | |
| CW 23+90 | 04/17/17 | 5507.32 | 11.72 | NPP | 7.77 | 5499.55 | NPP | | | |
| | 08/15/16 | 5507.32 | 11.72 | NPP | 7.61 | 5499.71 | NPP | | | |
| | 04/15/16 | 5507.32 | 11.72 | NPP | 7.82 | 5499.50 | NPP | | | |
| | 08/13/15 | 5507.32 | 11.72 | NPP | 7.54 | 5499.78 | NPP | | | |
| | 04/21/15 | 5507.32 | 11.72 | NPP | 7.74 | 5499.58 | NPP | | | |
| | 08/19/19 | 5505.90 | 12.32 | NPP | 7.35 | 5498.55 | NPP | | | |
| | 04/04/19 | 5505.90 | 12.25 | NPP | 7.31 | 5498.59 | NPP | | | |
| | 08/01/18 | 5505.90 | 12.26 | NPP | 7.35 | 5498.55 | NPP | | | |
| | 04/17/18 | 5505.90 | 12.26 | NPP | 7.30 | 5498.60 | NPP | | | |
| CW 25+95 | 08/24/17 | 5505.90 | 12.25 | NPP | 7.25 | 5498.65 | NPP | | | |
| OW 23133 | 04/17/17 | 5505.90 | 12.25 | NPP | 7.21 | 5498.69 | NPP | | | |
| | 08/15/16 | 5505.90 | 12.25 | NPP | 7.15 | 5498.75 | NPP | | | |
| | 04/15/16 | 5505.90 | 12.25 | NPP | 8.10 | 5497.80 | NPP | | | |
| _ | 08/13/15 | 5505.90 | 12.25 | Active Recovery Well | | | | | | |
| | 04/21/15 | 5505.90 | 12.25 | | Active Reco | overy Well | | | | |
| | 08/19/19 | 5508.27 | 53.17 | NPP | 52.59 | 5455.68 | NPP | | | |
| | 04/02/19 | 5508.27 | 53.07 | NPP | 52.57 | 5455.70 | NPP | | | |
| | 08/01/18 | 5508.27 | 53.10 | NPP | 52.60 | 5455.67 | NPP | | | |
| | 04/17/18 | 5508.27 | 53.10 | NPP | 52.60 | 5455.67 | NPP | | | |
| | 08/24/17 | 5508.27 | 53.08 | NPP | 52.58 | 5455.69 | NPP | | | |
| *SW1-0206 | 04/17/17 | 5508.27 | 53.08 | NPP | 52.58 | 5455.69 | NPP | | | |
| 0111 0200 | 08/15/16 | 5508.27 | 53.08 | NPP | 52.61 | 5455.66 | NPP | | | |
| | 04/15/16 | 5508.27 | 53.08 | NPP | 52.58 | 5455.69 | NPP | | | |
| | 08/12/15 | 5508.27 | 53.08 | NPP | 52.62 | 5455.65 | NPP | | | |
| | 05/19/15 | 5508.27 | 53.08 | NPP | 52.63 | 5455.64 | NPP | | | |
| | 04/27/15 | 5508.27 | 53.08 | NPP | 52.61 | 5455.66 | NPP | | | |
| | 03/05/15 | 5508.27 | 53.08 | NPP | 52.61 | 5455.66 | NPP | | | |
| | 08/19/19 | 5508.27 | 27.80 | NPP | 25.32 | 5482.95 | NPP | | | |
| | 04/02/19 | 5508.27 | 27.70 | NPP | 24.77 | 5483.50 | NPP | | | |
| | 08/01/18 | 5508.27 | 27.72 | NPP | 24.87 | 5483.40 | NPP | | | |
| | 04/17/18 | 5508.27 | 27.70 | NPP | 24.56 | 5483.71 | NPP | | | |
| | 08/24/17 | 5508.27 | 27.69 | NPP | 24.80 | 5483.47 | NPP | | | |
| *SW2-0206 | 04/17/17 | 5508.27 | 27.69 | NPP | 24.90 | 5483.37 | NPP | | | |
| 3VVZ-0206 | 08/15/16 | 5508.27 | 27.69 | NPP | 25.43 | 5482.84 | NPP | | | |
| | 04/15/16 | 5508.27 | 27.69 | NPP | 25.38 | 5482.89 | NPP | | | |
| | 08/12/15 | 5507.75 | 27.69 | NPP | 25.80 | 5481.95 | NPP | | | |
| | 05/19/15 | 5507.75 | 27.69 | NPP | 25.74 | 5482.01 | NPP | | | |
| | 04/27/15 | 5507.75 | 27.69 | NPP | 25.69 | 5482.06 | NPP | | | |
| | 03/05/15 | 5507.75 | 27.69 | NPP | 25.48 | 5482.27 | NPP | | | |

| Well ID | Date | Measuring Point Elevation | Total Well Depth | Depth To Product | Depth To Water | Corrected Groundwater Elevation | SPH Thickness |
|---------------|----------|---------------------------------|------------------|---------------------|-------------------|---------------------------------------|------------------|
| | | (ft amsl) | (ft below TOC) | (ft below TOC) | (ft below TOC) | (ft amsl) | (ft) |
| | 08/19/19 | 5505.29 | 52.62 | NPP | 27.03 | 5478.26 | NPP |
| | 04/02/19 | 5505.29 | 52.54 | NPP | 26.61 | 5478.68 | NPP |
| | 08/01/18 | 5505.29 | 52.58 | NPP | 26.90 | 5478.39 | NPP |
| | 04/17/18 | 5505.29 | 52.58 | NPP | 26.50 | 5478.79 | NPP |
| | 08/24/17 | 5505.29 | 52.56 | NPP | 26.42 | 5478.87 | NPP |
| *SW3- | 04/17/17 | 5505.29 | 52.56 | NPP | 26.55 | 5478.74 | NPP |
| 0206 | 08/15/16 | 5505.29 | 52.56 | NPP | 26.36 | 5478.93 | NPP |
| | 04/15/16 | 5505.29 | 52.56 | NPP | 26.56 | 5478.73 | NPP |
| | 08/12/15 | 5505.29 | 52.56 | NPP | 26.53 | 5478.76 | NPP |
| | 05/19/15 | 5505.29 | 52.56 | NPP | 26.62 | 5478.67 | NPP |
| | 04/27/15 | 5505.29 | 52.56 | NPP | 26.64 | 5478.65 | NPP |
| | 03/05/15 | 5505.29 | 52.56 | NPP | 26.53 | 5478.76 | NPP |
| | 08/19/19 | 5504.45 | 42.40 | NPP | 33.60 | 5470.85 | NPP |
| | 04/02/19 | 5504.45 | 42.33 | NPP | 32.88 | 5471.57 | NPP |
| | 08/01/18 | 5504.45 | 42.35 | NPP | 33.10 | 5471.35 | NPP |
| | 04/17/18 | 5504.45 | 42.35 | NPP | 32.70 | 5471.75 | NPP |
| | 08/24/17 | 5504.45 | 42.34 | NPP | 33.09 | 5471.36 | NPP |
| *SW4- | 04/17/17 | 5504.45 | 42.34 | NPP | 32.72 | 5471.73 | NPP |
| 0206 | 08/15/16 | 5504.45 | 42.34 | NPP | 33.08 | 5471.37 | NPP |
| | 04/15/16 | 5504.45 | 42.34 | NPP | 32.71 | 5471.74 | NPP |
| | 08/12/15 | 5504.45 | 42.34 | NPP | 33.08 | 5471.37 | NPP |
| | 05/19/15 | 5504.45 | 42.34 | NPP | 32.81 | 5471.64 | NPP |
| | 04/27/15 | 5504.45 | 42.34 | NPP | 32.78 | 5471.67 | NPP |
| | 03/05/15 | 5504.45 | 42.34 | NPP | 32.75 | 5471.70 | NPP |
| | 08/19/19 | 5514.34 | 52.34 | NPP | 33.99 | 5480.35 | NPP |
| | 04/02/19 | 5514.34 | 52.18 | NPP | 33.38 | 5480.96 | NPP |
| | 08/01/18 | 5514.34 | 52.25 | NPP | 34.26 | 5480.08 | NPP |
| | 04/17/18 | 5514.34 | 52.27 | NPP | 33.85 | 5480.49 | NPP |
| | 08/24/17 | 5514.34 | 52.24 | NPP | 34.04 | 5480.30 | NPP |
| *SW5- | 04/17/17 | 5514.34 | 52.24 | NPP | 33.29 | 5481.05 | NPP |
| 0206 | 08/15/16 | 5514.34 | 52.24 | NPP | 34.03 | 5480.31 | NPP |
| | 04/15/16 | 5514.34 | 52.24 | NPP | 33.93 | 5480.41 | NPP |
| | 08/12/15 | 5514.34 | 52.24 | NPP | 34.20 | 5480.14 | NPP |
| | 05/19/15 | 5514.34 | 52.24 | NPP | 33.82 | 5480.52 | NPP |
| | 04/27/15 | 5514.34 | 52.24 | NPP | 33.73 | 5480.61 | NPP |
| | 03/05/15 | 5514.34 | 52.24 | NPP | 33.78 | 5480.56 | NPP |
| | 08/19/19 | 5519.72 | 47.35 | NPP | 40.43 | 5479.29 | NPP |
| | 04/02/19 | 5519.72 | 47.41 | NPP | 38.68 | 5481.04 | NPP |
| | 08/01/18 | 5519.72 | 47.43 | NPP | 39.75 | 5479.97 | NPP |
| | 04/17/18 | 5519.72 | 47.44 | NPP | 38.52 | 5481.20 | NPP |
| *SW6- 0206 | 08/24/17 | 5519.72 | 47.43 | NPP | 40.92 | 5478.80 | NPP |
| | 04/17/17 | 5519.72 | 47.41 | NPP | 39.06 | 5480.66 | NPP |
| | 08/15/16 | 5519.72 | 47.41 | NPP | NWP | NWP | NPP |
| | 04/15/16 | 5519.72 | 47.41 | NPP | 39.40 | 5480.32 | NPP |
| | 08/12/15 | 5519.72 | 47.41 | NPP | 41.65 | 5478.07 | NPP |
| | 05/12/15 | 5519.72 | 47.41 | NPP | 40.88 | 5478.84 | NPP |
| | 04/27/15 | 5519.72 | 47.41 | NPP | 40.74 | 5478.98 | NPP |
| | 03/05/15 | 5519.72 | 47.41 | NPP | 40.23 | 5479.49 | NPP |

| Well ID | Date | Measuring Point Elevation (ft amsl) | Total Well Depth (ft below TOC) | Depth To Product (ft below TOC) | Depth To Water (ft below TOC) | Corrected Groundwater Elevation (ft amsl) | SPH Thickness (ft) |
|---------|----------|--|---------------------------------|---------------------------------------|-------------------------------------|---|--------------------------|
| | 08/19/19 | 5517.63 | 32.11 | NPP | 20.99 | 5496.64 | NPP |
| | 04/02/19 | 5517.63 | 32.05 | NPP | 20.53 | 5497.10 | NPP |
| | 08/01/18 | 5517.63 | 32.08 | NPP | 20.95 | 5496.68 | NPP |
| | 04/17/18 | 5517.63 | 32.07 | NPP | 20.56 | 5497.07 | NPP |
| | 08/24/17 | 5517.63 | 32.00 | NPP | 20.71 | 5496.92 | NPP |
| *SW7- | 04/17/17 | 5517.63 | 32.95 | NPP | 20.83 | 5496.80 | NPP |
| 0206 | 08/15/16 | 5517.63 | 32.95 | NPP | 20.76 | 5496.87 | NPP |
| | 04/15/16 | 5517.63 | 32.95 | NPP | 20.48 | 5497.15 | NPP |
| | 08/12/15 | 5517.63 | 32.95 | NPP | 20.84 | 5496.79 | NPP |
| | 05/19/15 | 5517.63 | 32.95 | NPP | 20.67 | 5496.96 | NPP |
| | 04/27/15 | 5517.63 | 32.95 | NPP | 20.73 | 5496.90 | NPP |
| | 03/05/15 | 5517.63 | 32.95 | NPP | 20.39 | 5497.24 | NPP |

Notes:

*SW = Wells sampled during significant rain events only

ft = feet

amsl = above mean sea level
NPP = No Product Present
NWP = No Water Present

SPH = Separate Phase Hydrocarbon

NM = Not Measured

TABLE 2
Groundwater Field Parameter Summary
2019 Groundwater Remediation and Monitoring Annual Report

| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature (°F) |
|----------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|------------------|
| Terminal Wells | | | | | | | |
| MW-04 | 08/20/19 | ns | ns | ns | ns | ns | ns |
| | 08/10/18 | ns | ns | ns | ns | ns | ns |
| | 08/24/17 | ns | ns | ns | ns | ns | ns |
| | 04/21/17 | ns | ns | ns | ns | ns | ns |
| | 08/23/16 | 2438 | 1.556 | 5.15 | -104.6 | 6.91 | 63.84 |
| | 08/24/15 | 2706 | 1759 | 2.23 | -110.7 | 7.05 | 63.56 |
| MW-08 | 2019 | well is not scheduled to be sampled | | | | | |
| | 2018 | well is not scheduled to be sampled | | | | | |
| | 08/24/17 | ns | ns | ns | ns | ns | ns |
| | 04/21/17 | 2514 | 1.633 | 4.14 | 43.2 | 7.68 | 57.78 |
| | 08/22/16 | 2149 | 1.398 | 2.72 | 107.2 | 8.04 | 59.41 |
| | 04/20/16 | ns | ns | ns | ns | ns | ns |
| | 08/18/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| MW-20 | 08/20/19 | ns | ns | ns | ns | ns | ns |
| | 04/01/19 | ns | ns | ns | ns | ns | ns |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| | 04/18/18 | ns | ns | ns | ns | ns | ns |
| | 08/24/17 | ns | ns | ns | ns | ns | ns |
| | 04/21/17 | ns | ns | ns | ns | ns | ns |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/15/16 | ns | ns | ns | ns | ns | ns |
| | 08/24/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| MW-21 | 08/20/19 | ns | ns | ns | ns | ns | ns |
| | 08/13/18 | 3933 | 2554 | 0.59 | -68.3 | 7.01 | 61.10 |
| | 08/24/17 | ns | ns | ns | ns | ns | ns |
| | 04/21/17 | ns | ns | ns | ns | ns | ns |
| | 08/23/16 | 4165 | 2.704 | 1.83 | 52.8 | 7.32 | 61.16 |
| | 04/20/16 | ns | ns | ns | ns | ns | ns |
| | 08/24/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |

TABLE 2
Groundwater Field Parameter Summary
2019 Groundwater Remediation and Monitoring Annual Report

| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature |
|----------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|-------------|
| | 08/23/19 | 940 | 735 | 1.25 | 158.0 | 6.91 | 61.50 |
| | 08/08/18 | 1840 | 1202 | 2.29 | 200.0 | 7.07 | 62.60 |
| | 08/24/17 | 2305 | 1638 | 1.80 | 71.6 | 7.09 | 63.95 |
| MW-29 | 04/21/17 | ns | ns | ns | ns | ns | ns |
| 10100-29 | 08/23/16 | 1021 | 663 | 4.63 | 56.0 | 7.52 | 68.73 |
| | 04/20/16 | ns | ns | ns | ns | ns | ns |
| | 08/24/15 | 961 | 624 | 1.81 | -16.0 | 7.49 | 61.70 |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/20/19 | ns | ns | ns | ns | ns | ns |
| | 04/04/19 | ns | ns | ns | ns | ns | ns |
| | 08/10/18 | ns | ns | ns | ns | ns | ns |
| | 04/18/18 | ns | ns | ns | ns | ns | ns |
| MM 20 | 08/24/17 | ns | ns | ns | ns | ns | ns |
| MW-30 | 04/21/17 | 3338 | 2168 | 5.17 | -61.4 | 7.28 | 53.78 |
| | 08/23/16 | 2757 | 1784 | 4.05 | -247.5 | 7.08 | 62.52 |
| | 04/21/16 | 3582 | 2329 | 2.19 | -260.5 | 7.75 | 64.46 |
| | 08/24/15 | 3009 | 1957 | 1.79 | -236.3 | 7.19 | 62.18 |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/22/19 | 2428 | 1794 | 2.15 | -139.7 | 7.01 | 65.10 |
| | 08/07/18 | 2797 | 1820 | 1.09 | -143.8 | 7.08 | 65.40 |
| | 08/25/17 | 2647 | 1722 | 1.49 | -63.1 | 7.25 | 62.60 |
| MW-31 | 04/21/17 | ns | ns | ns | ns | ns | ns |
| 10100-31 | 08/22/16 | 3048 | 1983 | 2.11 | 7.8 | 8.10 | 63.37 |
| | 04/20/16 | ns | ns | ns | ns | ns | ns |
| | 08/24/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/20/19 | ns | ns | ns | ns | ns | ns |
| | 08/10/18 | ns | ns | ns | ns | ns | ns |
| | 08/24/17 | ns | ns | ns | ns | ns | ns |
| M/A/ 40 | 04/21/17 | ns | ns | ns | ns | ns | ns |
| MW-40 | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/20/16 | ns | ns | ns | ns | ns | ns |
| | 08/24/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |

TABLE 2
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| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature (°F) |
|----------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|---------------------|
| | 08/22/19 | 5228 | 3958 | 2.14 | -4.4 | 6.71 | 63.40 |
| | 08/07/18 | 6072 | 3945 | 2.08 | 134.4 | 7.04 | 63.30 |
| | 08/24/17 | 2919 | 1974 | 2.00 | -6.0 | 7.10 | 63.53 |
| MW-44 | 04/21/17 | ns | ns | ns | ns | ns | ns |
| 10100-44 | 08/23/16 | 3460 | 2.253 | 5.87 | -15.8 | 7.30 | 61.32 |
| | 04/20/16 | ns | ns | ns | ns | ns | ns |
| | 08/24/15 | 5750 | 3740 | 1.93 | -97.8 | 7.26 | 61.28 |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/23/19 | 4519 | 3530 | 2.30 | 19.9 | 6.70 | 61.00 |
| | 08/08/18 | 5589 | 3581 | 1.33 | 187.2 | 6.77 | 61.90 |
| | 04/18/18 | 4916 | 3198 | 2.33 | 141.0 | 6.99 | 58.60 |
| MW-52 | 08/24/17 | 4891 | 3180 | 2.10 | 180.0 | 6.88 | 62.00 |
| | 04/21/17 | 4912 | 3193 | 3.87 | 120.6 | 7.30 | 58.60 |
| | 08/22/16 | 5336 | 3469.000 | 2.81 | 109.6 | 7.63 | 60.04 |
| | 08/17/15 | 4172 | 2713 | 1.92 | 62.7 | 7.02 | 59.24 |
| | 08/19/19 | ns | ns | ns | ns | ns | ns |
| | 08/09/18 | ns | ns | ns | ns | ns | ns |
| | 08/24/17 | ns | ns | ns | ns | ns | ns |
| DW 04 | 04/21/17 | ns | ns | ns | ns | ns | ns |
| RW-01 | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/20/16 | ns | ns | ns | ns | ns | ns |
| | 08/24/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/20/19 | ns | ns | ns | ns | ns | ns |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| | 08/24/17 | ns | ns | ns | ns | ns | ns |
| RW-09 | 04/21/17 | ns | ns | ns | ns | ns | ns |
| RVV-09 | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/20/16 | ns | ns | ns | ns | ns | ns |
| | 08/24/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/20/19 | ns | ns | ns | ns | ns | ns |
| | 08/10/18 | ns | ns | ns | ns | ns | ns |
| | 08/24/17 | ns | ns | ns | ns | ns | ns |
| D\\\ 4E | 04/21/17 | ns | ns | ns | ns | ns | ns |
| RW-15 | 08/23/16 | 2472 | 1.601 | 6.48 | -123.8 | 7.67 | 61.15 |
| | 04/20/16 | ns | ns | ns | ns | ns | ns |
| | 08/24/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |

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| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature (°F) |
|----------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|------------------|
| | 08/20/19 | ns | ns | ns | ns | ns | ns |
| | 08/10/18 | ns | ns | ns | ns | ns | ns |
| | 08/24/17 | ns | ns | ns | ns | ns | ns |
| RW-18 | 04/21/17 | ns | ns | ns | ns | ns | ns |
| KVV-10 | 08/23/16 | 3666 | 2.383 | 0.66 | 4.6 | 7.49 | 63.02 |
| | 04/20/16 | ns | ns | ns | ns | ns | ns |
| | 08/24/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/20/19 | ns | ns | ns | ns | ns | ns |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| | 08/24/17 | ns | ns | ns | ns | ns | ns |
| RW-23 | 04/21/17 | ns | ns | ns | ns | ns | ns |
| KVV-23 | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/20/16 | ns | ns | ns | ns | ns | ns |
| | 08/24/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/19/19 | ns | ns | ns | ns | ns | ns |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| | 08/24/17 | ns | ns | ns | ns | ns | ns |
| RW-28 | 04/21/17 | ns | ns | ns | ns | ns | ns |
| KVV-20 | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/20/16 | ns | ns | ns | ns | ns | ns |
| | 08/24/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/20/19 | ns | ns | ns | ns | ns | ns |
| | 08/10/18 | ns | ns | ns | ns | ns | ns |
| | 08/24/17 | ns | ns | ns | ns | ns | ns |
| RW-42 | 04/21/17 | ns | ns | ns | ns | ns | ns |
| KVV-42 | 08/24/16 | 2325 | 1.511 | 5.07 | -228.7 | 7.60 | 64.02 |
| | 04/20/16 | ns | ns | ns | ns | ns | ns |
| | 08/24/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| | 08/24/17 | ns | ns | ns | ns | ns | ns |
| RW-43 | 04/21/17 | ns | ns | ns | ns | ns | ns |
| 1/1/49 | 08/24/16 | 2904 | 1888 | 2.10 | -151.1 | 9.50 | 67.91 |
| | 04/20/16 | ns | ns | ns | ns | ns | ns |
| | 08/24/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |

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Groundwater Field Parameter Summary
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| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature (°F) |
|------------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|------------------|
| Cross-Gradient W | ells | | | | | | |
| | 08/21/19 | 676 | 526 | 0.65 | 75.7 | 7.12 | 61.40 |
| | 04/03/19 | 905 | 592 | 3.80 | 124.2 | 6.97 | 54.50 |
| | 08/06/18 | 872 | 592 | 3.40 | 168.0 | 7.11 | 60.70 |
| | 04/18/18 | 796 | 520 | 2.91 | 102.7 | 7.19 | 53.20 |
| MW-01 | 08/25/17 | 765 | 496 | 2.08 | 126.1 | 7.35 | 64.57 |
| 10100-01 | 04/20/17 | 827 | 538 | 3.01 | 233.4 | 7.99 | 57.65 |
| | 08/19/16 | 685 | 444 | 3.81 | 57.4 | 8.09 | 62.83 |
| | 04/21/16 | 863 | 561 | 3.57 | 32.3 | 8.41 | 56.24 |
| | 08/18/15 | 852 | 555 | 2.10 | 47.4 | 7.74 | 63.74 |
| | 04/20/15 | 992 | 646 | 4.80 | 86.9 | 7.62 | 55.40 |
| | 08/21/19 | 3140 | 2418 | 2.14 | 144.9 | 7.07 | 62.40 |
| | 04/03/19 | 3747 | 2437 | 1.77 | 133.0 | 7.14 | 61.50 |
| | 08/06/18 | 4038 | 2620 | 0.90 | 170.6 | 7.07 | 62.30 |
| | 04/18/18 | 3556 | 2314 | 1.61 | 129.0 | 7.11 | 61.10 |
| MW-13 | 08/25/17 | 3528 | 2294 | 1.81 | 114.7 | 7.10 | 62.03 |
| 10100-13 | 04/20/17 | 3561 | 2314 | 1.86 | 195.6 | 7.45 | 63.41 |
| | 08/19/16 | 3560 | 2314 | 2.30 | 84.7 | 7.84 | 62.51 |
| | 04/21/16 | 3698 | 2404 | 1.66 | 0.0 | 7.46 | 63.61 |
| | 08/18/15 | 3986 | 2591 | 1.99 | 28.8 | 7.28 | 65.12 |
| | 04/20/15 | 4588 | 2981 | 3.17 | 80.6 | 7.19 | 61.70 |
| | 08/19/19 | ns | ns | ns | ns | ns | ns |
| | 08/02/18 | ns | ns | ns | ns | ns | ns |
| | 08/28/17 | ns | ns | ns | ns | ns | ns |
| MW-26 | 04/20/17 | ns | ns | ns | ns | ns | ns |
| 10100-20 | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/21/16 | ns | ns | ns | ns | ns | ns |
| | 08/18/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/27/19 | 6774 | 5057 | 2.59 | -103.0 | 6.95 | 64.80 |
| | 08/21/19 | 6421 | 4849 | 6.96 | 105.7 | 6.90 | 63.90 |
| | 08/06/18 | 8295 | 5395 | 1.55 | 262.3 | 7.03 | 65.70 |
| | 08/28/17 | 5587 | 3633 | 1.28 | -49.2 | 7.05 | 63.10 |
| MW-27 | 04/21/16 | ns | ns | ns | ns | ns | ns |
| | 08/19/16 | 5598 | 3640 | 2.30 | -122.5 | 7.79 | 60.80 |
| | 04/21/16 | ns | ns | ns | ns | ns | ns |
| | 08/18/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |

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| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature |
|-----------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|-------------|
| | 08/21/19 | 4297 | 3373 | 13.13 | 97.1 | 7.69 | 60.70 |
| | 08/06/18 | 5818 | 3777 | 6.98 | 232.8 | 7.64 | 60.00 |
| | 08/28/17 | 4694 | 3055 | 7.20 | 144.6 | 7.44 | 64.10 |
| MW-32 | 04/21/16 | ns | ns | ns | ns | ns | ns |
| 10100-32 | 08/19/16 | 5094 | 3309 | 6.86 | 77.7 | 8.32 | 58.73 |
| | 04/21/16 | ns | ns | ns | ns | ns | ns |
| | 08/18/15 | 5171 | 3363 | 8.00 | 41.5 | 7.71 | 60.50 |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/21/19 | 4188 | 3120 | 6.38 | 149.3 | 7.59 | 64.60 |
| | 04/03/19 | 4754 | 3094 | 3.71 | 141.6 | 7.74 | 59.50 |
| | 08/06/18 | 5539 | 3601 | 2.55 | 2461.0 | 7.52 | 65.50 |
| | 04/18/18 | 5003 | 3243 | 3.32 | 145.0 | 7.58 | 59.50 |
| MW-33 | 08/28/17 | 4947 | 3211 | 4.20 | 146.4 | 7.24 | 65.10 |
| 10100-33 | 04/20/17 | 5288 | 3439 | 5.64 | 180.0 | 7.91 | 60.19 |
| | 08/19/16 | 5280 | 3429 | 6.11 | 70.1 | 8.49 | 60.62 |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/18/15 | 5594 | 3633 | 4.84 | 42.7 | 7.45 | 62.96 |
| | 04/20/15 | 6078 | 3950 | 7.37 | 76.4 | 7.76 | 60.08 |
| Downgradient We | ells | | | | | | |
| | 08/21/19 | 2328 | 1774 | 3.64 | -95.5 | 7.14 | 63.00 |
| | 08/06/18 | 3014 | 1956 | 3.69 | -62.6 | 7.05 | 61.70 |
| | 08/29/17 | 2847 | 1850 | 1.48 | -74.17 | 6.74 | 65.03 |
| B 00 07 4 4 | 04/20/16 | ns | ns | ns | ns | ns | ns |
| MW-11 | 08/18/16 | 2203 | 1432 | 1.77 | -61.3 | 7.66 | 64.99 |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/19/15 | 2221 | 1443 | 2.28 | -99.3 | 7.06 | 62.84 |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/21/19 | 365 | 274 | 4.90 | -84.2 | 6.90 | 64.40 |
| | 04/03/19 | 765 | 500 | 3.42 | 130.0 | 7.72 | 51.80 |
| | 08/06/18 | 459 | 298 | 1.17 | 226.1 | 7.24 | 65.50 |
| | 04/18/18 | 1183 | 773 | 4.60 | 84.4 | 7.44 | 54.40 |
| MANA 40 | 08/28/17 | 405 | 2639 | 3.48 | 124.9 | 7.28 | 69.30 |
| MW-12 | 04/20/17 | 633 | 411 | 4.26 | 151.3 | 7.99 | 53.78 |
| | 08/18/16 | 402 | 261 | 2.55 | 42.2 | 9.49 | 65.93 |
| | 04/22/16 | 653 | 425 | 5.62 | 49.5 | 8.33 | 55.28 |
| | 08/19/15 | 763 | 496 | 3.25 | 32.7 | 7.65 | 65.72 |
| | 04/20/15 | 691 | 449 | 6.54 | 84.8 | 7.67 | 51.74 |

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| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature |
|----------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|-------------|
| | 08/21/19 | 2430 | 1833 | 1.51 | -87.8 | 7.07 | 62.60 |
| | 08/06/18 | 3240 | 2041 | 2.95 | -35.1 | 7.11 | 63.90 |
| | 08/29/17 | 2853 | 1854 | 1.81 | -84.3 | 7.03 | 63.13 |
| MW-34 | 04/20/16 | ns | ns | ns | ns | ns | ns |
| 10100-34 | 08/18/16 | 2789 | 1814 | 2.05 | -77.5 | 7.88 | 60.58 |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/19/15 | 2289 | 1489 | 1.54 | -110.8 | 7.26 | 60.80 |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/21/19 | 2044 | 1599 | 1.36 | -87.6 | 7.09 | 60.90 |
| | 04/03/19 | 2352 | 1526 | 2.58 | -76.4 | 7.08 | 58.50 |
| | 08/06/18 | 2714 | 1762 | 1.16 | -50.7 | 7.11 | 62.00 |
| | 04/18/18 | 2100 | 1365 | 1.19 | -78.7 | 7.12 | 58.60 |
| NAVA 05 | 08/29/17 | 2480 | 1610 | 1.55 | -91.3 | 7.10 | 62.13 |
| MW-35 | 04/20/17 | 2059 | 1337 | 1.97 | -16.5 | 7.64 | 59.99 |
| | 08/18/16 | 2331 | 1515 | 1.97 | -86.7 | 8.01 | 59.90 |
| | 04/22/16 | 2001 | 1300 | 1.69 | -106.9 | 7.64 | 59.60 |
| | 08/19/15 | 2116 | 1374 | 1.30 | -103.4 | 7.28 | 60.32 |
| | 04/20/15 | 2054 | 1335 | 2.41 | -70.2 | 7.37 | 58.40 |
| | 08/21/19 | 2765 | 2125 | 2.35 | -100.6 | 7.27 | 62.30 |
| | 04/03/19 | 2898 | 1885 | 2.94 | 17.1 | 7.41 | 59.20 |
| | 08/06/18 | 2717 | 1762 | 2.25 | -50.4 | 7.35 | 63.90 |
| | 04/18/18 | 2200 | 1450 | 2.14 | -63.2 | 7.59 | 58.90 |
| MW-37 | 08/29/17 | 2855 | 1859 | 2.40 | -106.7 | 7.36 | 63.25 |
| 10100-37 | 04/20/17 | 2296 | 1490 | 3.42 | 8.1 | 7.64 | 58.91 |
| | 08/18/16 | 2518 | 1635 | 3.31 | -67.1 | 8.12 | 59.90 |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/19/15 | 2417 | 1571 | 3.62 | -118.1 | 7.61 | 60.50 |
| | 04/20/15 | 2730 | 1772 | 2.98 | 22.1 | 7.58 | 60.20 |
| | 08/21/19 | 1461 | 1131 | 0.77 | -85.8 | 7.09 | 60.90 |
| | 04/03/19 | 1616 | 1053 | 2.67 | -75.8 | 7.42 | 59.00 |
| | 08/06/18 | 1922 | 1248 | 2.20 | -54.2 | 7.19 | 62.50 |
| | 04/18/18 | 1589 | 1034 | 1.37 | -104.0 | 7.29 | 58.50 |
| MW-38 | 08/29/17 | 1610 | 1047 | 2.00 | -95.0 | 7.18 | 64.80 |
| 10100-20 | 04/20/17 | 1560 | 1014 | 2.37 | 34.9 | 8.06 | 59.48 |
| | 08/18/16 | 1085 | 705 | 3.11 | -46.5 | 8.42 | 60.26 |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/19/15 | 1171 | 761 | 2.01 | -124.7 | 7.55 | 59.00 |
| | 04/20/15 | 1395 | 906 | 3.13 | 10.1 | 7.76 | 59.48 |

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|--------------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|------------------|
| RCRA Investigation | on Wells | | | | | | |
| | 2019 | ns | ns | ns | ns | ns | ns |
| | 2018 | ns | ns | ns | ns | ns | ns |
| MW-50 | 2017 | ns | ns | ns | ns | ns | ns |
| | 08/23/16 | 590 | 0.383 | 4.99 | -123.3 | 8.38 | 61.06 |
| | 08/17/15 | ns | ns | ns | ns | ns | ns |
| | 2019 | ns | ns | ns | ns | ns | ns |
| | 08/03/18 | 652 | 423 | 1.57 | 214.1 | 7.25 | 60.80 |
| MW-51 | 08/23/17 | 729 | 429 | 4.09 | 172.0 | 7.32 | 62.90 |
| | 08/23/16 | 1180 | 732 | 5.92 | -38.6 | 7.67 | 62.12 |
| | 08/17/15 | 723 | 470 | 2.55 | 70.2 | 7.31 | 58.76 |
| | 08/23/19 | 4658 | 3620 | 1.56 | 152.7 | 7.06 | 51.40 |
| | 08/03/18 | 5438 | 3536 | 1.38 | 229.9 | 7.25 | 61.50 |
| MW-53 | 08/23/17 | 5204 | 3395 | 1.43 | 189.4 | 7.28 | 60.40 |
| | 08/24/16 | 4393 | 2868 | 4.99 | 27.5 | 7.40 | 59.49 |
| | 08/17/15 | 5470 | 3556 | 2.31 | 96.0 | 7.14 | 59.78 |
| | 08/20/19 | ns | ns | ns | ns | ns | ns |
| | 08/09/18 | ns | ns | ns | ns | ns | ns |
| MW-54 | 08/24/17 | ns | ns | ns | ns | ns | ns |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 08/17/15 | ns | ns | ns | ns | ns | ns |
| | 08/20/19 | ns | ns | ns | ns | ns | ns |
| | 08/10/18 | ns | ns | ns | ns | ns | ns |
| MW-55 | 08/24/17 | ns | ns | ns | ns | ns | ns |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 08/17/15 | ns | ns | ns | ns | ns | ns |
| | 08/20/19 | ns | ns | ns | ns | ns | ns |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| MW-56 | 08/24/17 | ns | ns | ns | ns | ns | ns |
| | 08/23/16 | 3032 | 1972 | 1.47 | 68.4 | 7.36 | 68.40 |
| | 08/17/15 | ns | ns | ns | ns | ns | ns |
| | 08/20/19 | ns | ns | ns | ns | ns | ns |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| MW-57 | 08/24/17 | ns | ns | ns | ns | ns | ns |
| | 08/24/16 | 3066 | 1994 | 2.99 | -149.0 | 7.42 | 65.61 |
| | 08/17/15 | ns | ns | ns | ns | ns | ns |

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|----------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|-------|------------------|
| | 08/20/19 | ns | ns | ns | ns | ns | ns |
| | 08/10/18 | ns | ns | ns | ns | ns | ns |
| MW-58 | 08/24/17 | ns | ns | ns | ns | ns | ns |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 08/17/15 | ns | ns | ns | ns | ns | ns |
| | 08/22/19 | 3012 | 2301 | 1.91 | -101.6 | 7.04 | 63.00 |
| | 08/03/18 | 3000 | 1956 | 1.10 | -59.7 | 6.92 | 64.00 |
| MW-59 | 08/22/17 | 2649 | 1720 | 1.32 | -74.5 | 6.99 | 63.50 |
| | 08/22/16 | 3241 | 2106 | 2.34 | 70.3 | 7.83 | 62.15 |
| | 08/17/15 | 3381 | 220 | 1.30 | -112.3 | 7.16 | 62.48 |
| | 08/19/19 | ns | ns | ns | ns | ns | ns |
| | 08/07/18 | ns | ns | ns | ns | ns | ns |
| MW-60 | 08/22/17 | 4074 | 2653 | 3.41 | 169.5 | 7.15 | 64.50 |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 08/17/15 | ns | ns | ns | ns | ns | ns |
| | 08/19/19 | ns | ns | ns | ns | ns | ns |
| | 08/02/18 | ns | ns | ns | ns | ns | ns |
| MW-61 | 08/24/17 | ns | ns | ns | ns | ns | ns |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 08/17/15 | ns | ns | ns | ns | ns | ns |
| | 08/22/19 | 6708 | 5057 | 2.75 | 58.3 | 6.86 | 63.00 |
| | 08/07/18 | 7891 | 5129 | 2.81 | 79.9 | 7.13 | 64.30 |
| MW-62 | 08/23/17 | 7036 | 4569 | 2.06 | 50.8 | 7.00 | 62.90 |
| | 08/22/16 | 7905 | 5139 | 2.18 | 120.3 | 8.00 | 62.06 |
| | 08/17/15 | 7273 | 473 | 2.03 | 48.1 | 7.05 | 61.46 |
| | 08/22/19 | 4595 | 3380 | 2.87 | 103.0 | 6.90 | 66.20 |
| MANA CO | 08/08/18 | 4005 | 2605 | 6.99 | 154.5 | 6.99 | 65.20 |
| MW-63 | 08/22/17 | 3530 | 2310 | 1.20 | 112.1 | 25.88 | 65.60 |
| | 08/17/15 | 4931 | 320 | 0.80 | 57.8 | 6.84 | 64.64 |
| | 08/22/19 | 5248 | 4017 | 5.32 | 95.3 | 7.11 | 62.80 |
| | 08/08/18 | 6353 | 4128 | 5.94 | 159.2 | 7.13 | 61.60 |
| MW-64 | 08/22/17 | 3946 | 3866 | 5.29 | 154.6 | 6.95 | 65.77 |
| | 08/22/16 | 6658 | 4329 | 6.29 | 131.2 | 7.83 | 62.11 |
| | 08/17/15 | 6310 | 410 | 6.16 | 68.3 | 7.04 | 63.38 |
| | 08/22/19 | 1983 | 1384 | 0.65 | -42.5 | 7.29 | 68.40 |
| | 08/07/18 | 3172 | 4898 | 2.25 | -80.4 | 7.03 | 68.00 |
| MW-65 | 08/22/17 | 4861 | 3172 | 1.06 | -64.9 | 7.05 | 65.90 |
| | 08/22/16 | 5228 | 3398 | 1.83 | -21.8 | 7.75 | 63.32 |
| | 08/17/15 | 4861 | 316 | 1.83 | -182.3 | 7.10 | 63.38 |

TABLE 2
Groundwater Field Parameter Summary
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| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature |
|------------------|---------------|---------------------------------------|-------------------------------------|-------------------------------|---|------|-------------|
| | 08/19/19 | ns | ns | ns | ns | ns | ns |
| | 08/02/18 | ns | ns | ns | ns | ns | ns |
| MW-66 | 08/24/17 | ns | ns | ns | ns | ns | ns |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 08/17/15 | ns | ns | ns | ns | ns | ns |
| | 08/23/19 | 1089 | 852 | 2.07 | 93.5 | 6.72 | 61.00 |
| | 08/03/18 | 1977 | 1287 | 1.37 | 250.0 | 7.12 | 60.90 |
| MW-67 | 08/23/17 | 1359 | 1040 | 1.60 | 143.8 | 7.17 | 63.13 |
| | 08/24/16 | 1078 | 714 | 5.87 | 5.4 | 7.52 | 59.79 |
| | 08/17/15 | 1320 | 860 | 2.71 | 73.0 | 7.24 | 59.48 |
| | 08/23/19 | 1182 | 910 | 4.21 | 76.1 | 6.89 | 62.50 |
| | 08/03/18 | 1431 | 930 | 1.53 | 208.0 | 7.03 | 60.90 |
| MW-68 | 08/23/17 | 1190 | 762 | 2.10 | 174.9 | 7.06 | 52.67 |
| | 08/24/16 | 1210 | 785 | 5.45 | 29.0 | 7.71 | 62.18 |
| | 08/17/15 | 1257 | 819 | 2.36 | 69.8 | 7.30 | 62.42 |
| | 08/19/19 | ns | ns | ns | ns | ns | ns |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| MW-69 | 08/24/17 | ns | ns | ns | ns | ns | ns |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 08/17/15 | ns | ns | ns | ns | ns | ns |
| | 08/22/19 | 5095 | 3907 | 1.91 | -69.7 | 6.88 | 62.60 |
| | 08/07/18 | 5598 | 3647 | 2.61 | -24.6 | 6.92 | 66.20 |
| MW-70 | 08/23/17 | 5387 | 3516 | 1.88 | -69.6 | 6.79 | 62.60 |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 08/17/15 | 6258 | 407 | 3.21 | -49.5 | 6.89 | 60.68 |
| North Boundary E | Barrier Wells | | | | | | |
| | 08/26/19 | 1784 | 1287 | 1.33 | -80.3 | 6.63 | 67.5 |
| | 04/03/19 | 1840 | 1196 | 1.25 | -60.01 | 6.80 | 51.8 |
| | 08/09/18 | 1451 | 940 | 0.79 | -57.2 | 6.76 | 67.3 |
| | 04/18/18 | 1123 | 728 | 1.57 | -50.3 | 6.75 | 55.4 |
| | 08/28/17 | 886 | 576 | 1.46 | -66.17 | 6.83 | 67.03 |
| CW 0+60 | 04/27/17 | 911 | 593 | 3.47 | -56.2 | 6.99 | 53.92 |
| | 08/17/16 | 878 | 570 | 2.84 | 47.78 | 6.91 | 70.55 |
| | 04/19/16 | 571 | 371 | 1.84 | -63.41 | 7.17 | 54.99 |
| | 08/25/15 | 914 | 592 | 1.34 | -94.9 | 7.04 | 68.54 |
| | 04/20/15 | 733 | 477 | 2.83 | -80.2 | 7.54 | 58.58 |

TABLE 2
Groundwater Field Parameter Summary
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| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature |
|----------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|-------------|
| | 08/26/19 | 1519 | 1111 | 0.30 | -240.9 | 7.14 | 66.60 |
| | 04/04/19 | 1992 | 1294 | 3.61 | -14.1 | 7.24 | 54.50 |
| | 08/09/18 | 2815 | 1833 | 0.94 | -216.9 | 7.40 | 67.10 |
| | 04/18/18 | 1679 | 1092 | 1.04 | -81.3 | 7.61 | 56.10 |
| CW 25+95 | 08/28/17 | 1989 | 1294 | 0.80 | -254.4 | 7.20 | 69.60 |
| CW 25+95 | 04/28/17 | 1759 | 1125 | 4.08 | -211.4 | 7.43 | 53.95 |
| | 08/17/16 | 1511 | 982 | 1.35 | 44.3 | 7.25 | 68.40 |
| | 04/21/16 | 1721 | 1177 | 0.68 | -222.0 | 7.87 | 62.24 |
| | 08/26/15 | np | np | np | np | np | np |
| | 04/20/15 | 1547 | 1008 | 1.95 | -193.1 | 7.54 | 59.30 |
| | 08/19/19 | ns | ns | ns | ns | ns | ns |
| | 04/03/19 | ns | ns | ns | ns | ns | ns |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| | 04/18/18 | ns | ns | ns | ns | ns | ns |
| OW 0+60 | 08/28/17 | ns | ns | ns | ns | ns | ns |
| OVV 0+60 | 04/27/17 | np | np | np | np | np | np |
| | 08/17/16 | 1208 | 785 | 1.15 | 22.9 | 7.55 | 70.00 |
| | 04/19/16 | ns | ns | ns | ns | ns | ns |
| | 08/25/15 | 1014 | 659 | 1.03 | -135.1 | 6.96 | 68.78 |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/19/19 | ns | ns | ns | ns | ns | ns |
| | 04/03/19 | ns | ns | ns | ns | ns | ns |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| | 04/18/18 | ns | ns | ns | ns | ns | ns |
| OW 1+50 | 08/28/17 | ns | ns | ns | ns | ns | ns |
| OW 1+30 | 04/27/17 | np | np | np | np | np | np |
| | 08/17/16 | 1225 | 797 | 1.70 | -96.7 | 7.40 | 70.41 |
| | 04/19/16 | 758 | 493 | 1.65 | -87.9 | 6.63 | 57.11 |
| | 08/25/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/26/19 | ns | ns | ns | ns | ns | ns |
| | 04/03/19 | ns | ns | ns | ns | ns | ns |
| | 08/09/18 | ns | ns | ns | ns | ns | ns |
| | 04/19/18 | 2800 | 1846 | 1.42 | -111.7 | 7.20 | 56.90 |
| OW 3+85 | 08/28/17 | ns | ns | ns | ns | ns | ns |
| OVV 3+00 | 04/27/17 | 2355 | 1532 | 1.10 | -18.7 | 7.41 | 13.05 |
| | 08/17/16 | 2776 | 1804 | 1.33 | -215.3 | 7.09 | 67.70 |
| | 04/19/16 | 2471 | 1606 | 1.84 | -74.55 | 6.92 | 55.67 |
| | 08/25/15 | 2522 | 1638 | 0.86 | -263.9 | 7.15 | 67.16 |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |

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| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature (°F) |
|----------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|------------------|
| | 08/19/19 | ns | ns | ns | ns | ns | ns |
| | 04/02/19 | ns | ns | ns | ns | ns | ns |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| | 04/18/18 | ns | ns | ns | ns | ns | ns |
| OW 5+50 | 08/28/17 | ns | ns | ns | ns | ns | ns |
| OW 5+50 | 04/27/17 | np | np | np | np | np | np |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/15/16 | ns | ns | ns | ns | ns | ns |
| | 08/25/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/19/19 | ns | ns | ns | ns | ns | ns |
| | 04/02/19 | ns | ns | ns | ns | ns | ns |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| | 04/18/18 | ns | ns | ns | ns | ns | ns |
| OW 6+70 | 08/28/17 | ns | ns | ns | ns | ns | ns |
| | 04/17/17 | ns | ns | ns | ns | ns | ns |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/15/16 | ns | ns | ns | ns | ns | ns |
| | 08/25/15 | ns | ns | ns | ns | ns | ns |
| | 08/26/19 | 3817 | 2743 | 2.26 | 122.9 | 6.93 | 67.90 |
| | 04/04/19 | 3751 | 2457 | 2.28 | 141.5 | 7.38 | 55.00 |
| | 08/09/18 | ns | ns | ns | ns | ns | ns |
| | 04/19/18 | ns | ns | ns | ns | ns | ns |
| OW 8+10 | 08/28/17 | 3663 | 2381 | 1.99 | 129.0 | 6.89 | 68.03 |
| OVV 6+10 | 04/27/17 | 4183 | 2719 | 3.16 | 137.0 | 7.83 | 55.94 |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/15/16 | ns | ns | ns | ns | ns | ns |
| | 08/25/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/26/19 | ns | ns | ns | ns | ns | ns |
| | 04/04/19 | ns | ns | ns | ns | ns | ns |
| | 08/09/18 | ns | ns | ns | ns | ns | ns |
| | 04/19/18 | 2233 | 1443 | 0.67 | -85.1 | 7.09 | 59.80 |
| OW 44 : 45 | 08/28/17 | ns | ns | ns | ns | ns | ns |
| OW 11+15 | 04/27/17 | 2399 | 1558 | 2.78 | 67.6 | 7.56 | 55.99 |
| | 08/17/16 | 2171 | 1414 | 0.78 | 152.9 | 6.65 | 68.23 |
| | 04/19/16 | 1284 | 834 | 3.49 | 52.2 | 7.68 | 57.66 |
| | 08/25/15 | 2452 | 1593 | 0.86 | -208.4 | 6.98 | 66.38 |
| | 04/20/15 | 2672 | 1738 | 1.34 | -99.6 | 7.16 | 58.52 |

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| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature (° F) |
|----------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|-------------------|
| | 08/19/19 | ns | ns | ns | ns | ns | ns |
| | 04/02/19 | ns | ns | ns | ns | ns | ns |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| | 04/19/18 | ns | ns | ns | ns | ns | ns |
| OW 14+10 | 08/28/17 | ns | ns | ns | ns | ns | ns |
| 0 14+10 | 04/17/17 | ns | ns | ns | ns | ns | ns |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/15/16 | ns | ns | ns | ns | ns | ns |
| | 08/25/15 | ns | ns | ns | ns | ns | ns |
| | 04/20/15 | ns | ns | ns | ns | ns | ns |
| | 08/26/19 | ns | ns | ns | ns | ns | ns |
| | 04/04/19 | ns | ns | ns | ns | ns | ns |
| | 08/09/18 | ns | ns | ns | ns | ns | ns |
| | 04/19/18 | 4102 | 2665 | 1.02 | -122.0 | 7.29 | 61.80 |
| OW 16+60 | 08/28/17 | ns | ns | ns | ns | ns | ns |
| OW 16+60 | 04/27/17 | 3481 | 2262 | 3.01 | -26.6 | 7.32 | 57.43 |
| | 08/17/16 | 3749 | 2438 | 1.43 | -249.4 | 7.77 | 69.32 |
| | 04/19/16 | 2973 | 2334 | 2.80 | -116.2 | 7.52 | 59.62 |
| | 08/25/15 | 3936 | 2557 | 0.77 | -219.3 | 7.16 | 68.84 |
| | 04/20/15 | 4057 | 2635 | 1.65 | -211.1 | 7.24 | 60.98 |
| | 08/26/19 | 5123 | 3692 | 2.26 | 123.6 | 7.19 | 67.70 |
| | 04/04/19 | 2580 | 1671 | 2.57 | 165.9 | 7.55 | 55.80 |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| | 04/18/18 | ns | ns | ns | ns | ns | ns |
| OW 19+50 | 08/28/17 | ns | ns | ns | ns | ns | ns |
| | 04/27/17 | np | np | np | np | np | np |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/15/16 | ns | ns | ns | ns | ns | ns |
| | 08/25/15 | ns | ns | ns | ns | ns | ns |
| | 08/26/19 | 3358 | 2411 | 2.30 | 128.1 | 7.01 | 68.10 |
| | 04/04/19 | 1148 | 748 | 3.75 | 157.3 | 7.70 | 53.80 |
| | 08/09/18 | ns | ns | ns | ns | ns | ns |
| | 04/19/18 | 3451 | 2243 | 2.43 | 114.5 | 7.15 | 57.40 |
| OW 00:00 | 08/28/17 | 2840 | 1846 | 3.21 | 179.6 | 7.08 | 70.00 |
| OW 22+00 | 04/28/17 | 3264 | 1875 | 7.90 | 123.8 | 6.28 | 54.37 |
| | 08/17/16 | 1913 | 1242 | 6.99 | 185.7 | 7.40 | 72.55 |
| | 04/19/16 | 2205 | 1434 | 6.71 | 15.0 | 8.01 | 57.38 |
| | 08/25/15 | 3048 | 1983 | 3.28 | 18.1 | 7.41 | 67.88 |
| | 04/20/15 | 3102 | 2017 | 4.57 | 24.8 | 7.56 | 57.62 |

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| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature (°F) |
|----------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|------------------|
| | 08/26/19 | ns | ns | ns | ns | ns | ns |
| | 04/04/19 | 2101 | 1365 | 2.53 | 148.9 | 7.59 | 58.60 |
| | 08/09/18 | 2111 | 1372 | 1.20 | 207.8 | 7.32 | 70.10 |
| | 04/19/18 | 1939 | 1255 | 3.03 | 116.2 | 7.53 | 61.30 |
| OW 23+10 | 08/28/17 | ns | ns | ns | ns | ns | ns |
| OW 23+10 | 04/28/17 | 1860 | 1200 | 7.34 | 70.7 | 7.18 | 56.04 |
| | 08/17/16 | 1589 | 1036 | 1.89 | -61.8 | 8.28 | 70.16 |
| | 04/19/16 | ns | ns | ns | ns | ns | ns |
| | 08/25/15 | 1676 | 1090 | 1.57 | -83.5 | 7.36 | 68.78 |
| | 04/20/15 | 1985 | 1289 | 2.22 | -102.5 | 7.50 | 58.76 |
| | 08/26/19 | 1868 | 1313 | 2.02 | 151.8 | 7.06 | 69.80 |
| | 04/04/19 | 1866 | 1209 | 3.27 | 143.6 | 7.82 | 60.40 |
| | 08/09/18 | ns | ns | ns | ns | ns | ns |
| | 04/18/18 | ns | ns | ns | ns | ns | ns |
| OW 23+90 | 08/28/17 | ns | ns | ns | ns | ns | ns |
| OW 25+90 | 04/28/17 | np | np | np | np | np | np |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/19/16 | ns | ns | ns | ns | ns | ns |
| | 08/25/15 | 1396 | 908 | 3.50 | -10.3 | 7.53 | 67.34 |
| | 04/20/15 | 1263 | 821 | 6.56 | -1.9 | 7.74 | 59.36 |
| | 08/26/19 | 1536 | 1085 | 1.84 | -72.7 | 7.08 | 69.10 |
| | 04/04/19 | 1604 | 1040 | 2.30 | -9.0 | 7.49 | 55.00 |
| | 08/09/18 | 2487 | 1612 | 1.98 | 26.0 | 7.12 | 69.90 |
| | 04/19/18 | 1354 | 877 | 2.00 | -51.7 | 7.39 | 57.90 |
| OW 25+70 | 08/28/17 | 2205 | 1432 | 1.76 | -45.0 | 7.19 | 71.07 |
| OVV 25+70 | 04/28/17 | 2318 | 1340 | 6.99 | -20.4 | 7.18 | 55.32 |
| | 08/17/16 | 1431 | 930 | 1.72 | -73.8 | 8.08 | 69.59 |
| | 04/21/16 | 1947 | 1265 | 2.22 | -72.8 | 8.24 | 57.56 |
| | 08/25/15 | 1600 | 1040 | 1.62 | -113.4 | 7.33 | 69.32 |
| | 04/20/15 | 1529 | 995 | 2.08 | -110.0 | 7.32 | 56.96 |

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|-------------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|------------------|
| San Juan River Bl | uff | | | | | | |
| | 08/15/19 | 985 | 676 | 6.31 | 62.7 | 7.17 | 70.00 |
| | 04/04/19 | 1166 | 754 | 12.09 | 159.3 | 7.62 | 54.30 |
| | 08/10/18 | 650 | 423 | 5.80 | 179.4 | 7.51 | 63.60 |
| | 04/20/18 | 820 | 619 | 6.52 | 181.2 | 7.45 | 61.10 |
| | 08/30/17 | 1111 | 722 | 6.76 | 180.0 | 7.41 | 70.00 |
| Outfall No. 2 | 04/21/17 | 785 | 507 | 6.66 | 180.7 | 7.77 | 58.64 |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 05/18/16 | 306 | 1989 | 6.78 | 94.9 | 6.25 | 55.22 |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | ns | ns | ns | ns | ns | ns |
| | 04/21/15 | 1064 | 693 | 9.80 | 4.4 | 7.98 | 51.80 |
| | 08/15/19 | 915 | 656 | 6.40 | 42.5 | 7.32 | 68.00 |
| | 04/04/19 | 1151 | 748 | 13.48 | 170.6 | 7.70 | 53.10 |
| | 08/09/18 | 380 | 247 | 4.21 | 226.1 | 7.38 | 68.20 |
| | 04/20/18 | 437 | 277 | 5.29 | 190.9 | 7.25 | 55.90 |
| | 08/30/17 | 467 | 284 | 5.94 | 170.7 | 7.17 | 61.90 |
| **Outfall No. 3 | 04/21/17 | 820 | 533 | 5.77 | 144.7 | 7.90 | 56.30 |
| | 08/19/16 | 297 | 193 | 9.33 | 38.0 | 8.79 | 61.16 |
| | 05/18/16 | 306 | 1989 | 8.67 | 96.4 | 6.84 | 51.98 |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | 307 | 199 | 7.84 | 23.7 | 7.87 | 60.02 |
| | 04/21/15 | 422 | 275 | 10.48 | 59.2 | 7.95 | 53.66 |
| | 2019 | ns | ns | ns | ns | ns | ns |
| | 2018 | ns | ns | ns | ns | ns | ns |
| | 08/30/17 | ns | ns | ns | ns | ns | ns |
| **Seep 1 | 04/21/17 | 3245 | 2106 | 5.43 | 238.1 | 7.63 | 57.20 |
| Зеер і | 08/19/16 | ns | ns | ns | ns | ns | ns |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | ns | ns | ns | ns | ns | ns |
| | 04/21/15 | 5072 | 3296 | 4.99 | 49.7 | 6.54 | 53.60 |
| | 2019 | ns | ns | ns | ns | ns | ns |
| | 2018 | ns | ns | ns | ns | ns | ns |
| | 08/30/17 | ns | ns | ns | ns | ns | ns |
| **Seep 2 | 04/21/17 | ns | ns | ns | ns | ns | ns |
| Geep 2 | 08/19/16 | ns | ns | ns | ns | ns | ns |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | ns | ns | ns | ns | ns | ns |
| | 04/21/15 | ns | ns | ns | ns | ns | ns |

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| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature |
|-------------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|-------------|
| | 2019 | ns | ns | ns | ns | ns | ns |
| | 2018 | ns | ns | ns | ns | ns | ns |
| | 08/30/17 | ns | ns | ns | ns | ns | ns |
| **Seep 3 | 04/21/17 | ns | ns | ns | ns | ns | ns |
| Зеер 3 | 08/19/16 | ns | ns | ns | ns | ns | ns |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | ns | ns | ns | ns | ns | ns |
| | 04/21/15 | ns | ns | ns | ns | ns | ns |
| | 08/19/16 | | | Seep no longer exists | 3 | | |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | ns | ns | ns | ns | ns | ns |
| | 04/21/15 | ns | ns | ns | ns | ns | ns |
| **Coop 4 | 08/26/14 | ns | ns | ns | ns | ns | ns |
| **Seep 4 | 04/12/14 | ns | ns | ns | ns | ns | ns |
| | 08/06/13 | ns | ns | ns | ns | ns | ns |
| | 04/24/13 | ns | ns | ns | ns | ns | ns |
| | 08/07/12 | ns | ns | ns | ns | ns | ns |
| | 03/18/12 | ns | ns | ns | ns | ns | ns |
| | 2019 | ns | ns | ns | ns | ns | ns |
| | 2018 | ns | ns | ns | ns | ns | ns |
| | 08/30/17 | ns | ns | ns | ns | ns | ns |
| | 08/30/17 | ns | ns | ns | ns | ns | ns |
| **Seep 5 | 04/21/17 | ns | ns | ns | ns | ns | ns |
| | 08/19/16 | ns | ns | ns | ns | ns | ns |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | ns | ns | ns | ns | ns | ns |
| | 04/21/15 | ns | ns | ns | ns | ns | ns |
| | 08/19/16 | | | Seep no longer exists | 3 | | |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | ns | ns | ns | ns | ns | ns |
| | 04/21/15 | ns | ns | ns | ns | ns | ns |
| ** C 000 6 | 08/26/14 | ns | ns | ns | ns | ns | ns |
| **Seep 6 | 04/12/14 | 8810 | 5727 | 13.46 | 105.2 | 7.24 | 44.84 |
| | 08/06/13 | 28663 | 18631 | 90.40 | 153.6 | 6.68 | 66.26 |
| | 04/24/13 | 9510 | 6180 | 129.16 | 219.0 | 7.07 | 42.00 |
| | 08/07/12 | ns | ns | ns | ns | ns | ns |
| | 03/18/12 | 7291 | 6851 | 12.60 | 121.6 | 7.61 | 48.02 |

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| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature |
|----------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|-------------|
| | 08/19/16 | | | Seep no longer exists | 3 | | |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | ns | ns | ns | ns | ns | ns |
| | 04/21/15 | ns | ns | ns | ns | ns | ns |
| **Coop 7 | 08/26/14 | ns | ns | ns | ns | ns | ns |
| **Seep 7 | 04/12/14 | ns | ns | ns | ns | ns | ns |
| | 08/06/13 | ns | ns | ns | ns | ns | ns |
| | 04/24/13 | ns | ns | ns | ns | ns | ns |
| | 08/07/12 | ns | ns | ns | ns | ns | ns |
| | 03/18/12 | ns | ns | ns | ns | ns | ns |
| | 08/19/16 | | | Seep no longer exists | 3 | | |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | ns | ns | ns | ns | ns | ns |
| | 04/21/15 | ns | ns | ns | ns | ns | ns |
| **Seep 8 | 08/26/14 | ns | ns | ns | ns | ns | ns |
| Occp o | 04/12/14 | ns | ns | ns | ns | ns | ns |
| | 08/06/13 | ns | ns | ns | ns | ns | ns |
| | 04/24/13 | ns | ns | ns | ns | ns | ns |
| | 08/07/12 | ns | ns | ns | ns | ns | ns |
| | 03/18/12 | ns | ns | ns | ns | ns | ns |
| | 08/19/16 | | | Seep no longer exists | 3 | | |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | ns | ns | ns | ns | ns | ns |
| | 04/21/15 | ns | ns | ns | ns | ns | ns |
| **Seep 9 | 08/26/14 | ns | ns | ns | ns | ns | ns |
| 0000 | 04/12/14 | 5271 | 3.4255 | 12.90 | 43.9 | 7.73 | 43.10 |
| | 08/06/13 | ns | ns | ns | ns | ns | ns |
| | 04/24/13 | 5644 | 3670 | 136.90 | 214.3 | 7.35 | 35.00 |
| | 08/07/12 | ns | ns | ns | ns | ns | ns |
| | 03/18/12 | 3004 | 2841 | 7.62 | 139.4 | 7.64 | 47.48 |
| | 08/16/19 | 241 | 207 | 10.18 | 67.5 | 8.01 | 54.20 |
| | 04/05/19 | 427 | 278 | 7.69 | 110.7 | 8.24 | 54.50 |
| | 08/02/18 | 454 | 294 | 8.85 | 173.7 | 7.60 | 68.50 |
| | 04/20/18 | 360 | 235 | 9.70 | 181.1 | 8.39 | 59.90 |
| **Upstream | 08/30/17 | 192 | 125 | 12.16 | 170.0 | 8.26 | 66.10 |
| , | 04/21/17 | 382 | 248 | 9.21 | 182.9 | 8.69 | 55.22 |
| | 08/19/16 | 290 | 189 | 8.90 | 22.6 | 8.94 | 64.04 |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | 169 | 110 | 9.28 | 23.6 | 7.98 | 57.74 |
| | 04/22/15 | 540 | 351 | 13.08 | 34.2 | 8.16 | 58.64 |

TABLE 2
Groundwater Field Parameter Summary
2019 Groundwater Remediation and Monitoring Annual Report

| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature (°F) |
|------------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|------|------------------|
| | 08/16/19 | 231 | 195 | 9.89 | 115.4 | 8.04 | 54.90 |
| | 04/05/19 | 417 | 271 | 8.66 | 145.6 | 8.13 | 52.70 |
| | 08/02/18 | 314 | 205 | 8.97 | 211.4 | 7.87 | 65.00 |
| | 04/20/18 | 320 | 210 | 8.25 | 201.5 | 8.03 | 60.10 |
| **North of MW-45 | 08/30/17 | 335 | 218 | 7.86 | 182.7 | 8.27 | 72.70 |
| NOTHI OF WIVE 45 | 04/21/17 | 314 | 204 | 7.77 | 230.9 | 8.49 | 59.72 |
| | 08/19/16 | 293 | 191 | 9.40 | 37.8 | 9.67 | 60.08 |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | ns | ns | ns | ns | ns | ns |
| | 04/22/15 | 498 | 324 | 12.93 | 33.4 | 8.03 | 60.08 |
| | 08/16/19 | 236 | 195 | 10.80 | 99.5 | 7.73 | 56.60 |
| | 04/05/19 | 239 | 155 | 7.48 | 134.0 | 8.30 | 55.60 |
| | 08/02/18 | 309 | 202 | 8.77 | 213.2 | 7.29 | 67.60 |
| | 04/20/18 | 340 | 219 | 7.95 | 207.5 | 8.45 | 62.30 |
| **North of MW-46 | 08/30/17 | 330 | 215 | 7.74 | 191.7 | 8.20 | 69.10 |
| NOTHI OF WIVE-46 | 04/21/17 | 490 | 319 | 8.74 | 269.6 | 8.66 | 60.62 |
| | 08/19/16 | 296 | 192 | 8.75 | 45.1 | 9.02 | 60.98 |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | ns | ns | ns | ns | ns | ns |
| | 04/22/15 | 500 | 325 | 13.71 | 20.3 | 8.24 | 60.26 |
| | 08/16/19 | 250 | 194 | 10.69 | 65.1 | 7.52 | 60.00 |
| | 04/05/19 | 494 | 321 | 7.78 | 169.1 | 8.06 | 55.60 |
| | 08/02/18 | 302 | 196 | 8.22 | 244.9 | 7.38 | 65.60 |
| | 04/20/18 | 319 | 200 | 7.98 | 181.1 | 7.92 | 61.10 |
| **Downstroom | 08/30/17 | 325 | 211 | 6.31 | 173.6 | 8.13 | 69.10 |
| **Downstream | 04/21/17 | 437 | 284 | 8.34 | 263.4 | 8.85 | 61.52 |
| | 08/19/16 | 290 | 189 | 8.76 | 20.5 | 8.90 | 63.86 |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | 315 | 205 | 9.81 | 14.7 | 8.13 | 57.20 |
| | 04/22/15 | 536 | 348 | 12.39 | 35.7 | 8.16 | 59.72 |

TABLE 2
Groundwater Field Parameter Summary
2019 Groundwater Remediation and Monitoring Annual Report

| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature |
|------------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|----|-------------|
| Background Wells | 1 | | | | | | |
| | 08/19/19 | ns | ns | ns | ns | ns | ns |
| | 04/02/18 | ns | ns | ns | ns | ns | ns |
| | 08/01/18 | ns | ns | ns | ns | ns | ns |
| | 04/16/18 | ns | ns | ns | ns | ns | ns |
| **MW-03 | 08/30/17 | ns | ns | ns | ns | ns | ns |
| 10100-03 | 04/18/17 | ns | ns | ns | ns | ns | ns |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | ns | ns | ns | ns | ns | ns |
| | 04/22/15 | ns | ns | ns | ns | ns | ns |
| | 08/19/19 | ns | ns | ns | ns | ns | ns |
| | 04/02/19 | ns | ns | ns | ns | ns | ns |
| | 08/02/18 | ns | ns | ns | ns | ns | ns |
| | 04/16/18 | ns | ns | ns | ns | ns | ns |
| ****** | 08/30/17 | ns | ns | ns | ns | ns | ns |
| **MW-05 | 04/18/17 | ns | ns | ns | ns | ns | ns |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | ns | ns | ns | ns | ns | ns |
| | 04/22/15 | ns | ns | ns | ns | ns | ns |
| | 08/19/19 | ns | ns | ns | ns | ns | ns |
| | 04/02/19 | ns | ns | ns | ns | ns | ns |
| | 08/02/18 | ns | ns | ns | ns | ns | ns |
| | 04/16/18 | ns | ns | ns | ns | ns | ns |
| ****** | 08/30/17 | ns | ns | ns | ns | ns | ns |
| **MW-06 | 04/18/17 | ns | ns | ns | ns | ns | ns |
| | 08/17/16 | ns | ns | ns | ns | ns | ns |
| | 04/22/16 | ns | ns | ns | ns | ns | ns |
| | 08/26/15 | ns | ns | ns | ns | ns | ns |
| | 04/22/15 | ns | ns | ns | ns | ns | ns |
| | | | | | | | |
| | 2019 | ns | ns | ns | ns | ns | ns |
| | 2018 | ns | ns | ns | ns | ns | ns |
| MW BCK1 | 2017 | ns | ns | ns | ns | ns | ns |
| IVIVV DOINT | 2016 | ns | ns | ns | ns | ns | ns |
| | 08/17/15 | ns | ns | ns | ns | ns | ns |
| | 04/22/15 | ns | ns | ns | ns | ns | ns |

TABLE 2 Groundwater Field Parameter Summary 2019 Groundwater Remediation and Monitoring Annual Report

| Location ID | Date | Electrical Conductivity (uS/cm) | Total Dissolved Solids (mg/l) | Dissolved Oxygen (mg/l) | Oxidation Reduction Potential (mV) | рН | Temperature (°F) |
|----------------|----------|---------------------------------------|-------------------------------------|-------------------------------|---|----|------------------|
| | 2019 | ns | ns | ns | ns | ns | ns |
| | 2018 | ns | ns | ns | ns | ns | ns |
| MW BCK2 | 2017 | ns | ns | ns | ns | ns | ns |
| IVIVV BCK2 | 2016 | ns | ns | ns | ns | ns | ns |
| | 08/17/15 | ns | ns | ns | ns | ns | ns |
| | 04/22/15 | ns | ns | ns | ns | ns | ns |

Notes:

ns = no sample

np = no purge parameters, low water volume

* = Field result was confirmed with field notes.

^{** =} Discrete sample reading

TABLE 3
Terminal Wells Analytical Summary
2019 Groundwater Remediation and Monitoring Annual Report

| | Screening | | **RW-1 | | | MW-4 | | | 1 par | W-8 | **RW-9 | | | RW-15 | | | **RW-18 | **MW-20 | **MW-21 | **RW-23 | **RW-28 |
|----------------------------------|-------------|--------|--------|--------|----------|--------|------------------|------------------|----------------|------------------|--------|--------|----------|--------|-------------------|------------------|---------|---------|---------|---------|---------|
| | Levels | Source | Aug-19 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-16 | W-8 Aug-13 | Aug-19 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-19 | Aug-19 | Aug-19 | Aug-19 |
| Volatile Organic Compounds (uc | | | Aug-19 | Aug-19 | _ Aug-10 | Aug-17 | Aug-10 | Lug-13 | Aug-10 | Aug-13 | Aug-19 | Aug-19 | _ Aug-10 | Aug-17 | _ Aug-10 | Aug-13 | Aug-13 | Aug-19 | Aug-19 | Aug-13 | Aug-13 |
| 1,1,1,2-Tetrachloroethane | 5.74 | (4) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| 1,1,1-Trichloroethane | 5 | (3) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| 1,1,2,2-Tetrachloroethane | 10 | (3) | | | | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | | | | < 200 | < 40 | | | | | |
| 1,1,2-Trichloroethane | 5 | (3) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| 1,1-Dichloroethane | 25 | (3) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| 1,1-Dichloroethene | 7 | (3) | | | | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | | | | < 10 < 10 | < 20 < 20 | | | | | |
| 1,2,3-Trichlorobenzene | 7 | (1) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 100 | < 20 | | | | | |
| 1,2,3-Trichloropropane | 0.01 | (4) | | | | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | | | | < 200 | < 40 | | | | | |
| 1,2,4-Trichlorobenzene | 11.55 | (4) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 100 | < 20 | | | | | |
| 1,2,4-Trimethylbenzene | 56 | (1) | | | | | 1.7 | 4.1 | 1.0 | 8.0 | | | | | 2100 | 650 | | | | | |
| 1,2-Dibromo-3-chloropropane | 0.2 | (2) | | | | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | | | | < 200 | < 40 | | | | | |
| 1,2-Dibromoethane (EDB) | 0.05 | (3) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| 1,2-Dichlorobenzene | 302 1.71 | (4) | | | | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | | | | < 100 < 10 | < 20 < 20 | | | | | |
| 1,2-Dichloropropane | 4.376 | (4) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| 1,3,5-Trimethylbenzene | 60 | (1) | | | | | < 1.0 | < 1.0 | < 1.0 | 2.0 | | | | | 200 | 92 | | | | | |
| 1,3-Dichlorobenzene | - | | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 100 | < 20 | | | | | |
| 1,3-Dichloropropane | 370 | (1) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| 1,4-Dichlorobenzene | 75 | (2) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 100 | < 20 | | | | | |
| 1-Methylnaphthalene | 11 | (5) | | | | | 22 | 21 | < 4.0 | < 4.0 | | | | | < 400 | < 80 | | | | | |
| 2,2-Dichloropropane | - 5565 | (4) | | | | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | | | | < 20 | < 40 | | | | | |
| 2-Butanone 2-Chlorotoluene | 5565 240 | (4) | | | | | < 10 < 1.0 | < 10 < 1.0 | < 10 < 1.0 | < 10 < 1.0 | | | | | < 100 < 100 | < 200 < 20 | | | | | |
| 2-Hexanone | - | (1) | | | | | < 1.0 | < 10 | < 1.0 | < 1.0 | | | | | < 100 | < 200 | | | | | |
| 2-Methylnaphthalene | 36 | (1) | | | | | 35 | 37 | < 4.0 | < 4.0 | | | | | < 400 | 95 | | | | | |
| 4-Chlorotoluene | 250 | (1) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 100 | < 20 | | | | | |
| 4-Isopropyltoluene | - | | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 100 | < 20 | | | | | |
| 4-Methyl-2-pentanone | - | | | | | | < 10 | < 10 | < 10 | < 10 | | | | | < 100 | < 200 | | | | | |
| Acetone | 14064 | (4) | | | | | < 10 | < 10 | < 10 | < 10 | | | | | < 100 | < 200 | | | | | |
| Benzene Bromobenzene | 5 62 | (3) | | | | | 37 < 1.0 | 210 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | | | | 1800 < 100 | 1200 < 20 | | | | | |
| Bromodichloromethane | 1.34 | (4) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 100 | < 20 | | | | | |
| Bromoform | 33 | (5) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 100 | < 20 | | | | | |
| Bromomethane | 7.545 | (4) | | | | | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | | | | < 30 | < 60 | | | | | |
| Carbon disulfide | 810 | (4) | | | | | < 10 | < 10 | < 10 | < 10 | | | | | < 100 | < 200 | | | | | |
| Carbon Tetrachloride | 5 | (2) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| Chlorobenzene | 100 | (2) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| Chloroethane Chloroform | 20900 | (4) | | | | | < 2.0 < 1.0 | < 2.0 < 1.0 | < 2.0 < 1.0 | < 2.0 < 1.0 | | | | | < 20 < 10 | < 40 < 20 | | | | | |
| Chloromethane | 20.3 | (4) | | | | | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | | | | < 30 | < 60 | | | | | |
| cis-1,2-DCE | 70 | (2) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| cis-1,3-Dichloropropene | 4.7 | (4) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| Dibromochloromethane | 1.68 | (4) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| Dibromomethane | 8.3 | (1) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| Dichlorodifluoromethane | 197 | (4) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| Ethylbenzene Hexachlorobutadiene | 700 1.39 | (3) | | | | | 7 < 1.0 | 17 < 1.0 | <1.0 < 1.0 | 1.2 < 1.0 | | | | | 2400 < 100 | 610 < 20 | | | | | |
| Isopropylbenzene | 447 | (4) | | | | | 40 | 49 | < 1.0 | < 1.0 | | | | | 100 | 23 | | | | | |
| Methyl tert-butyl ether (MTBE) | 100 | (3) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | 110 | | | | | |
| Methylene Chloride | 5 | (2) | | | | | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | | | | < 30 | < 60 | | | | | |
| Naphthalene | 1.65 | (4) | | | | | 71 | 78 | < 2.0 | < 2.0 | | | | | 500 | 170 | | | | | |
| n-Butylbenzene | 1000 | (1) | | | | | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | | | | < 300 | < 60 | | | | | |
| n-Propylbenzene | 660 | (1) | | | | | 33 | 39 | <1.0 | 1.2 | | | | | 350 | 59 | | | | | |
| sec-Butylbenzene Styrene | 2000 100 | (1) | | | | | 5.7 < 1.0 | 7.7 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | | | | < 100 < 10 | < 20 < 20 | | | | | |
| tert-Butylbenzene | 690 | (1) | | | | | 1.2 | 1.2 | < 1.0 | < 1.0 | | | | | < 100 | < 20 | | | | | |
| Tetrachloroethene (PCE) | 5 | (2) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 100 | < 20 | | | | | |
| Toluene | 1000 | (3) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | 18 | 740 | | | | | |
| trans-1,2-DCE | 100 | (2) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| trans-1,3-Dichloropropene | 4.71 | (4) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| Trichloroethene (TCE) | 5 | (2) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| Trichlorofluoromethane | 1136 | (4) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| Vinyl chloride | 2 | (3) | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | < 10 | < 20 | | | | | |
| Xylenes, Total | 620 | (3) | | | | | 11 | 11 | <1.5 | 3.6 | | | | | 1300 | 1000 | | | | | |

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| | Screening | | **RW-1 | | | MW-4 | | | 1 M | W-8 | **RW-9 | | | RW-15 | | | **RW-18 | **MW-20 | **MW-21 | **RW-23 | **RW-28 |
|--|-------------|--------|----------|----------|--------|--------|----------|---------|---------|--------|--------|--------|----------|----------|--------|----------|---------|---------|---------|---------|---------|
| | Levels | Source | Aug-19 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-16 | Aug-13 | Aug-19 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-19 | Aug-19 | Aug-19 | Aug-19 |
| Semi-Volatile Organic Compou | | | , .ug 13 | , .ag 10 | ,ag 10 | ,ag 17 | , .ag 10 | , ag 10 | , ag 10 | ,ag 10 | ray 10 | rug 10 | , .ug-10 | , .ug 11 | ,y 10 | , .ag 10 | , ag 10 | , ag 10 | , ag 10 | 7.ug 10 | 7.ag 13 |
| 1,2,4-Trichlorobenzene | 70 | (2) | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | 600 | (2) | | | | | | | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | - | (-) | | | | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | 75 | (2) | | | | | | | | | | | | | | | | | | | |
| 1-Methylnaphthalene | 11 | (5) | | | | | | | | | | | | | | | | | | | |
| 2,4,5-Trichlorophenol | 1166 | (4) | | | | | | | | | | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 11.9 | (4) | | | | | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 45.3 | (4) | | | | | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 354 | (4) | | | | | | | | | | | | | | | | | | | |
| 2,4-Dinitrophenol | 38.7 | (4) | | | | | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 2.375 | (4) | | | | | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 0.485 | (4) | | | | | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 733 | (4) | | | | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 91 | (4) | | | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 36 | (1) | | | | | | | | | | | | | | | | | | | |
| 2-Methylphenol | 930 | (1) | | | | | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 190 | (1) | | | | | | | | | | | | | | | | | | | |
| 2-Nitrophenol | - | | | | | | | | | | | | | | | | | | | | |
| 3,3´-Dichlorobenzidine | 1.25 | (4) | | | | | | | | | | | | | | | | | | | |
| 3+4-Methylphenol | 930 | (1) | | | | | | | | | | | | | | | | | | | |
| 3-Nitroaniline 4,6-Dinitro-2-methylphenol | 1.52 | (4) | | | | | | | | | | | | | | | | | | | |
| 4-Bromophenyl phenyl ether | - | (4) | | | | | | | | | | | | | | | | | | | |
| 4-Chloro-3-methylphenol | | | | | | | | | | | | | | | | | | | | | |
| 4-Chloroaniline | 3.7 | (5) | | | | | | | | | | | | | | | | | | | |
| 4-Chlorophenyl phenyl ether | - | (0) | | | | | | | | | | | | | | | | | | | |
| 4-Nitroaniline | 38 | (5) | | | | | | | | | | | | | | | | | | | |
| 4-Nitrophenol | - | | | | | | | | | | | | | | | | | | | | |
| Acenaphthene | 535 | (4) | | | | | | | | | | | | | | | | | | | |
| Acenaphthylene | - | | | | | | | | | | | | | | | | | | | | |
| Aniline | 130 | (5) | | | | | | | | | | | | | | | | | | | |
| Anthracene | 1721 | (4) | | | | | | | | | | | | | | | | | | | |
| Azobenzene | 1.2 | (5) | | | | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 0.1199 | (4) | | | | | | | | | | | | | | | | | | | |
| Benzo(a)pyrene Benzo(b)fluoranthene | 0.2 | (2) | | | | | | | | | | | | | | | | | | | |
| Benzo(g,h,i)perylene | - | (4) | | | | | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | 3.43 | (4) | | | | | | | | | | | | | | | | | | | |
| Benzoic acid | 75000 | (1) | | | | | | | | | | | | | | | | | | | |
| Benzyl alcohol | 2000 | (1) | | | | | | | | | | | | | | | | | | | |
| Bis(2-chloroethoxy)methane | 59 | (1) | | | | | | | | | | | | | | | | | | | |
| Bis(2-chloroethyl)ether | 0.137 | (4) | | | | | | | | | | | | | | | | | | | |
| Bis(2-chloroisopropyl)ether | 9.81 | (4) | | | | | | | | | | | | | | | | | | | |
| Bis(2-ethylhexyl)phthalate | 6 | (2) | | | | | | | | | | | | | | | | | | | |
| Butyl benzyl phthalate | 160 | (5) | | | | | | | | | | | | | | | | | | | |
| Carbazole | - | 4.00 | | | | | | | | | | | | | | | | | | | |
| Chrysene | 34.3171 | (4) | | | | | | | | | | | | | | | | | | | |
| Dibenz(a,h)anthracene Dibenzofuran | 0.0343 | (4) | | | | | | | | | | | | | | | | | | | |
| Diethyl phthalate | 14800 | (4) | | | | | | | | | | | | | | | | | | | |
| Dimethyl phthalate | - | (4) | | | | | | | | | | | | | | | | | | | |
| Di-n-butyl phthalate | 885 | (4) | | | | | | | | | | | | | | | | | | | |
| Di-n-octyl phthalate | - | (.) | | | | | | | | | | | | | | | | | | | |
| Fluoranthene | 802 | (4) | | | | | | | | | | | | | | | | | | | |
| Fluorene | 288 | (4) | | | | | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 0.0976 | (4) | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 1.387 | (4) | | | | | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 0.411 | (4) | | | | | | | | | | | | | | | | | | | |
| Hexachloroethane | 3.2842 | (4) | | | | | | | | | | | | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 0.3432 | (4) | | | | | | | | | | | | | | | | | | | |
| Isophorone | 781 | (4) | | | | | | | | | | | | | | | | | | | |
| Naphthalene Nitrobenzene | 1.65 1.4 | (4) | | | | | | | | | | | | | | | | | | | |
| N-Nitrosodimethylamine | 0.0049 | (4) | | | | | | | | | | | | | | | | | | | |
| N-Nitrosodi-n-propylamine | 0.0049 | (5) | | | | | | | | | | | | | | | | | | | |
| N-Nitrosodiphenylamine | 121.922 | (4) | | | | | | | | | | | | | | | | | | | |
| | | (· / | | | | | | | | | | | | | | | | | | | |

TABLE 3 Terminal Wells Analytical Summary 2019 Groundwater Remediation and Monitoring Annual Report

| | Screening | | **RW-1 | | | MW-4 | | | 1 54 | W-8 | **RW-9 | | | RW-15 | | | **RW-18 | **MW-20 | **MW-21 | **RW-23 | **RW-28 |
|----------------------------------|-----------|--------|--------|--------|--------|--------|-----------------|-----------------|------------------|------------------------|--------|--------|--------|--------|---------------|-----------------------|---------|---------|---------|---------|---------|
| | Levels | Source | Aug-19 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-16 | Aug-13 | | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-19 | Aug-19 | Aug-19 | Aug-19 |
| Pentachlorophenol | 0.4129 | (4) | Aug-19 | Aug-19 | Aug-10 | Aug-17 | Aug-16 | Aug-15 | Aug-10 | Aug-13 | Aug-19 | Aug-19 | Aug-10 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-19 | Aug-19 | Aug-19 | Aug-19 |
| Phenanthrene | 170.4146 | (4) | | | | | | | | | | | | | | | | | | | |
| Phenol | 5761 | (4) | | | | | | | | | | | | | | | | | | | |
| Pyrene | 117 | (4) | | | | | | | | | | | | | | | | | | | |
| Pyridine | 20 | (1) | | | | | | | | | | | | | | | | | | | |
| General Chemistry (mg/L) | | (-/ | | | | | | | | | | | | | | | | | | | |
| Fluoride | 1.6 | (3) | | | | | < 0.50 | 0.29 | 0.61 | 0.67 | | | | | < 0.50 | < 0.50 | | | | | |
| Chloride | 250 | (3) | | | | | 270 | 250 | 160 | 120 | | | | | 330 | 480 | | | | | |
| Nitrite | 1 | (3) | | | | | < 0.50 | < 0.10 | 13.0 | 0.88 | | | | | < 0.50 | < 0.50 | | | | | |
| Bromide | - | | | | | | 4.6 | < 0.10 | 0.78 | 0.86 | | | | | 8.5 | 6.3 | | | | | |
| Nitrate | 10 | (3) | | | | | < 0.50 | 0.74 | 13.0 | 13 | | | | | < 0.50 | < 0.50 | | | | | |
| Phosphorus | - | | | | | | < 2.5 | < 0.50 | <0.5 | < 2.5 | | | | | < 2.5 | < 2.5 | | | | | |
| Sulfate | 600 | (3) | | | | | < 2.5 | 1 | 700 | 990 | | | | | 19 | < 2.5 | | | | | |
| Carbon Dioxide (CO ₂₎ | - | | | | | | 1200 | 1100 | 190 | 61 | | | | | 1200 | 1200 | | | | | |
| Alkalinity (CaCO ₃) | - | | | | | | 1176 | 1148 | 198 | 31 | | | | | 1248 | 1221 | | | | | |
| Bicarbonate (CaCO ₃) | - | | | | | | 1176 | 1148 | 198 | 31 | | | | | 1248 | 1221 | | | | | |
| Total Metals (mg/L) | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | | | | | < 0.020 | < 0.020 | 0.02 | < 0.020 | | | | | < 0.020 | < 0.020 | | | | | |
| Barium | 2.0 | (3) | | | | | 2.5 | 2 | 0.063 | 0.021 | | | | | 1.4 | 1.5 | | | | | |
| Cadmium | 0.005 | (3) | | | | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | | | | | < 0.0020 | < 0.0020 | | | | | |
| Chromium | 0.05 | (3) | | | | | 0.071 | < 0.0060 | 2 | 0.46 | | | | | < 0.0060 | < 0.0060 | | | | | |
| Lead | 0.015 | (3) | | | | | 0.012 | 0.005 | < 0.005 | < 0.0010 | | | | | 0.0085 | < 0.0050 | | | | | |
| Selenium | 0.05 | (3) | | | | | < 0.050 | < 0.050 | < 0.050 | 0.084 | | | | | < 0.050 | < 0.050 | | | | | |
| Silver | 0.05 | (3) | | | | | < 0.0050 | < 0.0050 | < 0.0050 | < 0.025 | | | | | < 0.0050 | < 0.0050 | | | | | |
| Mercury | 0.002 | (3) | | | | | < 0.00020 | < 0.00020 | 0.0029 | 0.0012 | | | | | < 0.00020 | < 0.00020 | | | | | |
| Dissolved Metals (mg/L) | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | | | | | < 0.020 | < 0.020 | < 0.020 | < 0.0050 | | | | | < 0.020 | < 0.020 | | | | | |
| Barium | 1.0 | (3) | | | | | 2.3 | 2.3 | <0.02 | 0.012 | | | | | 1.2 | 1.6 | | | | | |
| Cadmium | 0.005 | (3) | | | | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | | | | | < 0.0020 | < 0.0020 | | | | | |
| Calcium | - | | | | | | 170 | 170 | 180 | 140 | | | | | 150 | 170 | | | | | |
| Chromium | 0.05 | (3) | | | | | 0.011 | < 0.0060 | 0.016 | 0.019 | | | | | < 0.0060 | < 0.0060 | | | | | |
| Copper | 1 | (3) | | | | | 0.16 | < 0.0060 | <0.006 | 0.0076 | | | | | 0.0098 | < 0.0060 | | | | | |
| Iron | 1 | (3) | | | | | 43 | 6.2 | 1.4 | 2.5 | | | | | 12 | 48 | | | | | |
| Lead | 0.015 | (3) | | | | | 0.014 | 0.0065 | <0.005 | < 0.0010 | | | | | 0.0077 | < 0.0050 | | | | | |
| Magnesium | - | (0) | | | | | 61 | 66 | 30 | 31 | | | | | 45 | 49 | | | | | |
| Manganese | 0.2 | (3) | | | | | 8.6 | 3.5 | 0.54 | 2.7 | | | | | 3.1 | 3 | | | | | |
| Potassium | - 0.05 | (2) | | | | | 4.7 | 4.3 | 2.9 | 3.1 | | | | | 3.7 | 3.7 | | | | | |
| Selenium | 0.05 | (3) | | | | | < 0.050 | < 0.050 | < 0.050 | 0.04 | | | | | < 0.050 | < 0.050 | | | | | |
| Silver | 0.05 | (3) | | | | | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 250 | | | | | < 0.0050 | < 0.0050 | | | | | |
| Sodium | - 0.02 | (2) | | | | | 380 | 360 | 290 | 0.001 | | | | | 560 | 560 | | | | | |
| Uranium Zinc | 0.03 | (3) | | | | | < 0.10 0.033 | < 0.10 0.024 | < 0.10 < 0.02 | 0.001 | | | | | < 0.10 1.3 | < 0.10 0.15 | | | | | |
| Total Petroleum Hydrocarbons | | (3) | | | | | 0.033 | 0.024 | <0.02 | 0.076 | | | | | 1.3 | U.15 | | | | | |
| Diesel Range Organics | 0.0167 | (6) | | | | | 1.3 | 2.1 | <0.2 | <0.20 | | | | | 100 | 20 | | | | | |
| Gasoline Range Organics | 0.0107 | (6) | | | | | 6.1 | 14 | <0.2 | 0.083 | | | | | 29 | 16 | | | | | |
| Motor Oil Range Organics | 0.0858 | (6) | | | | | < 2.5 | < 2.5 | <2.5 | <2.5 | | | | | 44 | 12 | | | | | |
| motor on runge organics | 0.0000 | (0) | | | | | ` 2.0 | ` 2.0 | \ <u>-</u> .0 | \L.U | l | l | | | - | - | | | | | |

- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018)
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remediation (February 2019)
- (4) NMLD rap water Screening Level Nisk Assessment Guidance for Site investigations and Remediation (1)
 (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds
- (6) NMED SSG (June 2019)
- = No screening level available
- * = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time
- = Analysis not required and/or well contains separate phase
- = Analytical result exceeds the respective screening level.
- = 6/27/13 modification on FWGWM Plan to remove MW-8 and replace with MW-52.
- ** = Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

TABLE 3
Terminal Wells Analytical Summary
2019 Groundwater Remediation and Monitoring Annual Report

| Volatile Organic Compounds (ug/L) 1,1,1,2-Tetrachloroethane 5.74 1,1,1-Trichloroethane 5 1,1,2,2-Tetrachloroethane 10 1,1,2-Trichloroethane 5 1,1-Dichloroethane 5 1,1-Dichloroethane 7 1,1-Dichloroethane 7 1,1-Dichloropropene - 1,2,3-Trichlorobenzene 7 1,2,3-Trichlorobenzene 7 1,2,4-Trimethylbenzene 56 1,2-Dibromo-3-chloropropane 0.2 1,2-Dichloroethane (EDB) 0.05 1,2-Dichloroethane (EDB) 1.71 1,2-Dichloroethane (EDC) 1.71 1,2-Dichloropropane 4.376 1,3,5-Trimethylbenzene 60 1,3-Dichloropropane 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - | (4) (3) (3) (3) (3) (3) (4) (4) (4) (4) (4) (4) (4) (1) (2) (3) (4) (4) (4) (1) (1) (2) (5) | Aug-19 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 | Aug-18 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 2.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 | MW-29 Aug-17 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 | Aug-16 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 | Aug-15 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 2.0 < 1.0 | Aug-19 | | | MW- Aug-17 | Apr-17 | <pre>< 100 < 100 < 100 < 200 < 100 < 100 < 100</pre> | Apr-16 | <pre>< 100 < 100 < 200 < 100</pre> | Apr-15 | <pre>< 10 < 10 < 10 < 20 < 10</pre> | < 10 < 10 < 20 < 10 | MW-31 Aug-17 < 10 < 10 < 20 | < 10 < 10 < 10 < 20 | < 20 < 20 |
|--|---|---|---|---|---|--|------------------|------------------------------|--------------|------------|------------|---|--------|--|--------|--|------------------------------|---|------------------------------|-----------------------------|
| Volatile Organic Compounds (ug/L) 1,1,1,2-Tetrachloroethane 5.74 1,1,1-Trichloroethane 5 1,1,2-Tetrachloroethane 10 1,1,2-Trichloroethane 5 1,1-Dichloroethane 25 1,1-Dichloroethene 7 1,1-Dichloropropene - 1,2,3-Trichlorobenzene 7 1,2,3-Trichloropropane 0.01 1,2,4-Trichlorobenzene 11.55 1,2,4-Trimethylbenzene 56 1,2-Dibromo-3-chloropropane 0.2 1,2-Dibromoethane (EDB) 0.05 1,2-Dichlorobenzene 302 1,2-Dichloropthane (EDC) 1.71 1,2-Dichloropthane (EDC) 1.71 1,3-Dichloropropane 4.376 1,3-Dichlorobenzene - 1,3-Dichloropropane 370 1,4-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphtha | (3) (3) (3) (3) (3) (3) (1) (4) (4) (1) (2) (3) (4) (4) (4) (4) (1) (1) (2) | <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 | < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < | < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 2.0 < 1.0 | < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 2.0 | < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 | | | | | | < 100 < 100 < 200 < 100 | | < 100 < 100 < 200 | | < 10 < 10 < 20 | < 10 < 10 < 20 | < 10 < 10 | < 10 < 10 | < 20 < 20 |
| 1,1,1,2-Tetrachloroethane 5.74 1,1,1-Trichloroethane 5 1,1,2,2-Tetrachloroethane 10 1,1,2-Trichloroethane 5 1,1-Dichloroethane 25 1,1-Dichloroethane 7 1,1-Dichloroptopene - 1,2,3-Trichlorobenzene 7 1,2,3-Trichlorobenzene 0.01 1,2,4-Trimethylbenzene 56 1,2-Dibromo-3-chloropropane 0.2 1,2-Dibromoethane (EDB) 0.05 1,2-Dichlorobenzene 302 1,2-Dichloroethane (EDC) 1.71 1,2-Dichloropropane 4.376 1,3,5-Trimethylbenzene 60 1,3-Dichlorobenzene - 1,3-Dichloropropane 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | (3) (3) (3) (3) (3) (3) (1) (4) (4) (1) (2) (3) (4) (4) (4) (4) (1) (1) (2) | <1.0 <2.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1 | < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 | < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 | < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 2.0 | < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 | | | | | | < 100 < 200 < 100 | | < 100 < 200 | | < 10 < 20 | < 10 < 20 | < 10 | < 10 | < 20 |
| 1,1,1-Trichloroethane 5 1,1,2,2-Tetrachloroethane 10 1,1,2-Trichloroethane 5 1,1-Dichloroethane 25 1,1-Dichloropropene - 1,1-Dichloropropene - 1,2,3-Trichlorobenzene 7 1,2,3-Trichloropropane 0.01 1,2,4-Trichlorobenzene 11.55 1,2,4-Trimethylbenzene 56 1,2-Dibromo-3-chloropropane 0.2 1,2-Dibromoethane (EDB) 0.05 1,2-Dichlorobenzene 302 1,2-Dichlorobenzene 4.376 1,3-Dichloropropane 4.376 1,3-Dichlorobenzene - 1,3-Dichlorobenzene - 1,4-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | (3) (3) (3) (3) (3) (3) (1) (4) (4) (1) (2) (3) (4) (4) (4) (4) (1) (1) (2) | <1.0 <2.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1 | < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 | < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 | < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 2.0 | < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 | | | | | | < 100 < 200 < 100 | | < 100 < 200 | | < 10 < 20 | < 10 < 20 | < 10 | < 10 | < 20 |
| 1,1,2-Trichloroethane 5 1,1-Dichloroethane 25 1,1-Dichloroethene 7 1,1-Dichloropropene - 1,2,3-Trichlorobenzene 7 1,2,3-Trichloropropane 0.01 1,2,4-Trichlorobenzene 11.55 1,2,4-Trimethylbenzene 56 1,2-Dibromo-3-chloropropane 0.2 1,2-Dibromoethane (EDB) 0.05 1,2-Dichlorobenzene 302 1,2-Dichlorobenzene 4.376 1,3-Dichloropropane 4.376 1,3-Dichlorobenzene - 1,3-Dichlorobenzene - 1,3-Dichloropropane 370 1,4-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | (3) (3) (3) (3) (3) (1) (4) (4) (1) (2) (3) (4) (4) (4) (4) (1) (1) (2) | <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <2.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1 | < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 | < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 2.0 < 1.0 < 1.0 | < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 2.0 < 1.0 < 2.0 | <1.0 <1.0 <1.0 <1.0 <1.0 <2.0 <1.0 <1.0 | | | | | | < 100 | | | | | | < 20 | < 20 | - |
| 1,1-Dichloroethane 25 1,1-Dichloroethene 7 1,1-Dichloropropene - 1,2,3-Trichlorobenzene 7 1,2,3-Trichloropropane 0.01 1,2,4-Trichlorobenzene 11.55 1,2,4-Trimethylbenzene 56 1,2-Dibromo-3-chloropropane 0.2 1,2-Dibromoethane (EDB) 0.05 1,2-Dichlorobenzene 302 1,2-Dichlorobenzene 4.376 1,3-Dichloropropane 4.376 1,3-Dichlorobenzene - 1,3-Dichloropropane 370 1,4-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | (3) (3) (1) (4) (4) (1) (2) (3) (4) (4) (4) (1) (1) (2) | <1.0 <1.0 <1.0 <1.0 <1.0 <2.0 <1.0 <1.0 <2.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1 | < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 | < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 2.0 < 1.0 | <1.0 <1.0 <1.0 <1.0 <2.0 <1.0 <1.0 <2.0 | <1.0 <1.0 <1.0 <1.0 <2.0 <1.0 <1.0 | | | | | | | | < 100 | | < 10 | < 10 | | | < 40 |
| 1,1-Dichloroethene 7 1,1-Dichloropropene - 1,2,3-Trichlorobenzene 7 1,2,3-Trichloropropane 0.01 1,2,4-Trichlorobenzene 11.55 1,2,4-Trimethylbenzene 56 1,2-Dibromo-3-chloropropane 0.2 1,2-Dibromoethane (EDB) 0.05 1,2-Dichlorobenzene 302 1,2-Dichlorobenzene 4.376 1,3-Dichloropropane 4.376 1,3-Dichlorobenzene - 1,3-Dichlorobenzene - 1,3-Dichloropropane 370 1,4-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | (3) (1) (4) (4) (1) (2) (3) (4) (4) (4) (4) (1) (1) (2) | <1.0 <1.0 <1.0 <1.0 <2.0 <1.0 0.38 J <2.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1 | < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 2.0 < 1.0 | < 1.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 | <1.0 <1.0 <1.0 <2.0 <1.0 <1.0 <2.0 | <1.0 <1.0 <1.0 <2.0 <1.0 <1.0 | | | | | | < 100 | | | | | | < 10 | < 10 | < 20 |
| 1,1-Dichloropropene - 1,2,3-Trichlorobenzene 7 1,2,3-Trichloropropane 0.01 1,2,4-Trichlorobenzene 11.55 1,2,4-Trimethylbenzene 56 1,2-Dibromo-3-chloropropane 0.2 1,2-Dibromoethane (EDB) 0.05 1,2-Dichlorobenzene 302 1,2-Dichlorobenzene 1.71 1,2-Dichloropropane 4.376 1,3,5-Trimethylbenzene 60 1,3-Dichlorobenzene - 1,3-Dichloropropane 370 1,4-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | (1) (4) (4) (1) (2) (3) (4) (4) (4) (1) (1) | <1.0 <1.0 <1.0 <2.0 <1.0 0.38 J <2.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1 | < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 | < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 < 2.0 | <1.0 <1.0 <2.0 <1.0 <1.0 <2.0 | < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 | | | | | | | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| 1,2,3-Trichlorobenzene 7 1,2,3-Trichloropropane 0.01 1,2,4-Trichlorobenzene 11.55 1,2,4-Trimethylbenzene 56 1,2-Dibromo-3-chloropropane 0.2 1,2-Dibromoethane (EDB) 0.05 1,2-Dichlorobenzene 302 1,2-Dichloroethane (EDC) 1.71 1,2-Dichloropropane 4.376 1,3,5-Trimethylbenzene 60 1,3-Dichlorobenzene - 1,3-Dichloropropane 370 1,4-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | (4) (4) (1) (2) (3) (4) (4) (4) (1) (1) | <1.0 <2.0 <1.0 0.38 J <2.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1 | < 1.0 < 2.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 | < 1.0 < 2.0 < 1.0 < 1.0 < 2.0 < 1.0 | < 1.0 < 2.0 < 1.0 < 1.0 < 2.0 | < 1.0 < 2.0 < 1.0 < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| 1,2,3-Trichloropropane 0.01 1,2,4-Trichlorobenzene 11.55 1,2,4-Trimethylbenzene 56 1,2-Dibromo-3-chloropropane 0.2 1,2-Dibromoethane (EDB) 0.05 1,2-Dichlorobenzene 302 1,2-Dichloroptopane 4.376 1,3-Dichloropropane 60 1,3-Dichlorobenzene - 1,3-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | (4) (4) (1) (2) (3) (4) (4) (4) (1) (1) | <2.0 <1.0 0.38 J <2.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1 | < 2.0 < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 | < 2.0 < 1.0 < 1.0 < 2.0 < 1.0 | < 2.0 < 1.0 < 1.0 < 2.0 | < 2.0 < 1.0 < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| 1,2,4-Trichlorobenzene 11.55 1,2,4-Trimethylbenzene 56 1,2-Dibromo-3-chloropropane 0.2 1,2-Dibromoethane (EDB) 0.05 1,2-Dichlorobenzene 302 1,2-Dichloroethane (EDC) 1.71 1,2-Dichloropropane 4.376 1,3,5-Trimethylbenzene 60 1,3-Dichlorobenzene - 1,3-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | (4) (1) (2) (3) (4) (4) (4) (1) (1) | < 1.0 0.38 J < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 | < 1.0 < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 | < 1.0 < 1.0 < 2.0 < 1.0 | < 1.0 < 1.0 < 2.0 | < 1.0 < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| 1,2,4-Trimethylbenzene 56 1,2-Dibromo-3-chloropropane 0.2 1,2-Dibromoethane (EDB) 0.05 1,2-Dichlorobenzene 302 1,2-Dichlorothane (EDC) 1.71 1,2-Dichloropropane 4.376 1,3-Dichloropropane 60 1,3-Dichlorobenzene - 1,3-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - | (1) (2) (3) (4) (4) (4) (4) (1) | 0.38 J < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 | < 1.0 < 2.0 < 1.0 < 1.0 < 1.0 | < 1.0 < 2.0 < 1.0 | < 1.0 < 2.0 | < 1.0 | | | | | | < 200 | | < 200 | | < 20 | < 20 | < 20 | < 20 | < 40 |
| 1,2-Dibromo-3-chloropropane 0.2 1,2-Dibromoethane (EDB) 0.05 1,2-Dichlorobenzene 302 1,2-Dichloroethane (EDC) 1.71 1,2-Dichloropropane 4.376 1,3-5-Trimethylbenzene 60 1,3-Dichlorobenzene - 1,3-Dichloropropane 370 1,4-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | (2) (3) (4) (4) (4) (4) (1) (1) | < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 | < 2.0 < 1.0 < 1.0 < 1.0 | < 2.0 < 1.0 | < 2.0 | | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| 1,2-Dibromoethane (EDB) 0.05 1,2-Dichlorobenzene 302 1,2-Dichloroethane (EDC) 1.71 1,2-Dichloropropane 4.376 1,3,5-Trimethylbenzene 60 1,3-Dichloropropane 370 1,3-Dichloropropane 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - | (3) (4) (4) (4) (1) (1) (1) (2) | < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 | < 1.0 < 1.0 < 1.0 | < 1.0 | | | | | | | | 4200 | | 3000 | | 330 | 940 | 230 | 600 | 1700 |
| 1,2-Dichlorobenzene 302 1,2-Dichloroethane (EDC) 1.71 1,2-Dichloropropane 4.376 1,3,5-Trimethylbenzene 60 1,3-Dichlorobenzene - 1,3-Dichloropropane 370 1,4-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | (4) (4) (4) (1) (1) (1) (2) | < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 | < 1.0 < 1.0 | | | < 2.0 | | | | | | < 200 | | < 200 | | < 20 | < 20 | < 20 | < 20 | < 40 |
| 1,2-Dichloroethane (EDC) 1,2-Dichloropropane 4,376 1,3,5-Trimethylbenzene 60 1,3-Dichlorobenzene 1,3-Dichloropropane 370 1,4-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane 2-Butanone 2-Butanone 2-Hexanone 2-Methylnaphthalene 36 | (4) (4) (1) (1) (1) (2) | < 1.0 < 1.0 < 1.0 < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 < 1.0 | | | | | | < 100 < 100 | | < 100 < 100 | | < 10 < 10 | < 10 < 10 | < 10 < 10 | < 10 < 10 | < 20 < 20 |
| 1,2-Dichloropropane 4.376 1,3,5-Trimethylbenzene 60 1,3-Dichlorobenzene - 1,3-Dichloropropane 370 1,4-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | (4) (1) (1) (2) | < 1.0 < 1.0 < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| 1,3,5-Trimethylbenzene 60 1,3-Dichlorobenzene - 1,3-Dichloropropane 370 1,4-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | (1) | < 1.0 < 1.0 | \ \ 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| 1,3-Dichlorobenzene 1,3-Dichloropropane 370 1,4-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 2-Hexanone - 2-Methylnaphthalene 36 | (1) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | 860 | | 740 | | 33 | 24 | 1.4 J | < 10 | 82 |
| 1,3-Dichloropropane 370 1,4-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | (2) | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| 1,4-Dichlorobenzene 75 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| 1-Methylnaphthalene 11 2,2-Dichloropropane - 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | | < 4.0 | < 4.0 | < 4.0 | < 4.0 | < 4.0 | | | | | | < 400 | | < 400 | | 78 | 45 | 19 J | 41 | < 80 |
| 2-Butanone 5565 2-Chlorotoluene 240 2-Hexanone - 2-Methylnaphthalene 36 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | | | | | < 200 | | < 200 | | < 20 | < 20 | < 20 | < 20 | < 40 |
| 2-Hexanone - 2-Methylnaphthalene 36 | (4) | < 10 | < 10 | < 10 | < 10 | < 10 | | | | | | < 1000 | | < 1000 | | < 100 | < 100 | < 100 | < 100 | < 200 |
| 2-Methylnaphthalene 36 | (1) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| | | < 10 | < 10 | < 10 | < 10 | < 10 | | | | | | < 1000 | | < 1000 | | < 100 | < 100 | < 100 | < 100 | < 200 |
| | (1) | < 4.0 | < 4.0 | < 4.0 | < 4.0 | < 4.0 | | | | | | < 400 | | < 400 | | 74 | 45 | 12 | < 40 | 96 |
| 4-Chlorotoluene 250 | (1) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | 12 J | < 10 | < 20 |
| 4-Isopropyltoluene - | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | 2.6 | 3.1 J | < 10 | < 10 | < 20 |
| 4-Methyl-2-pentanone - | (4) | < 10 | < 10 | < 10 | < 10 | < 10 | | | | | | < 1000 | | < 1000 | | < 100 | < 100 | < 100 | < 100 | < 200 |
| Acetone 14064 | (4) | < 10 | < 10 | 2.2 J | < 10 | < 10 | | | | | | < 1000 | | < 1000 | | < 100 | < 100 | < 100 | < 100 | < 200 |
| Benzene 5 | (3) | 0.36 J | < 1.0 | < 1.0 | < 1.0 < 1.0 | < 1.0 | | | | | 2900 | 2700 | 3000 | 4200 | | 1500 | 1500 | 320 | 270 | 3900 |
| Bromobenzene 62 Bromodichloromethane 1.34 | (1) | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 | < 1.0 < 1.0 | | | | | | < 100 < 100 | | < 100 < 100 | | < 10 < 10 | < 10 < 10 | < 10 < 10 | < 10 < 10 | < 20 < 20 |
| Bromoform 33 | (5) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| Bromomethane 7.545 | (4) | < 3.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | | | | | < 300 | | < 300 | | < 30 | < 30 | < 30 | < 30 | < 60 |
| Carbon disulfide 810 | (4) | < 10 | < 10 | < 10 | < 10 | < 10 | | | | | | < 1000 | | < 1000 | | < 100 | < 100 | < 100 | < 100 | < 200 |
| Carbon Tetrachloride 5 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| Chlorobenzene 100 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| Chloroethane 20900 | (4) | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | | | | | < 200 | | < 200 | | < 20 | < 20 | < 20 | < 20 | < 40 |
| Chloroform 2.29 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| Chloromethane 20.3 | (4) | < 3.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | | | | | < 300 | | < 300 | | < 30 | < 30 | < 30 | < 30 | < 60 |
| cis-1,2-DCE 70 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| cis-1,3-Dichloropropene 4.7 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| Dibromochloromethane 1.68 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| Dibromomethane 8.3 | (1) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| Dichlorodifluoromethane 197 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| Ethylbenzene 700 | (3) | 0.18 J | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | 5700 | 4400 | 4700 | 4000 | | 710 | 820 | 170 | 240 | 1600 |
| Hexachlorobutadiene 1.39 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| Isopropylbenzene 447 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 < 1.0 | < 1.0 | | | | | | 190 | | 110 | | 55 | 63 | 27 | 37 | 100 |
| Methyl tert-butyl ether (MTBE) 100 Methylene Chloride 5 | (3) | 0.51 J < 3.0 | 0.67 J < 3.0 | 0.56 J < 3.0 | < 3.0 | < 1.0 < 3.0 | | | | | < 100 | < 100 < 300 | < 100 | < 100 < 300 | | < 10 < 30 | < 10 < 30 | < 10 < 30 | < 10 | < 20 < 60 |
| Naphthalene 1.65 | (2) | 0.30 J | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | | | | | < 300 700 | | < 300 600 | | < 30 160 | < 30 160 | 50 | < 30 74 | 210 |
| n-Butylbenzene 1000 | (1) | < 3.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | | | | | < 300 | | < 300 | | <3.0 | 16 J | 4.2 J | < 30 | < 60 |
| n-Propylbenzene 660 | (1) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | 710 | | 470 | | 190 | 210 | 68 | 130 | 290 |
| sec-Butylbenzene 2000 | (1) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | 35 | 26 | 11 | 24 | 42 |
| Styrene 100 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | 0.27 | < 10 | < 10 | < 10 | < 20 |
| tert-Butylbenzene 690 | (1) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | 2.4 | < 10 | < 10 | < 10 | < 20 |
| Tetrachloroethene (PCE) 5 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| Toluene 1000 | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | 1000 | 1800 | 1300 | 13000 | | 390 | 760 | 51 | < 10 | 3500 |
| trans-1,2-DCE 100 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| trans-1,3-Dichloropropene 4.71 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| Trichloroethene (TCE) 5 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | < 100 | | < 100 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| Trichlorofluoromethane 1136 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | | | | 100 | | - 100 | | 40 | < 10 | < 10 | < 10 | - 20 |
| Vinyl chloride 2 | | < 1.0 | | | | | | | | | | < 100 | | < 100 | | < 10 | _ \ 10 | | | < 20 |
| Xylenes, Total 620 | (3) | < 1.5 | < 1.0 < 1.5 | < 1.0 < 1.5 | < 1.0 < 1.5 | < 1.0 < 1.5 | | | | | 17000 | < 100 < 100 14000 | 13000 | < 100 < 100 16000 | | < 10 < 10 1200 | < 10 < 10 | < 10 < 10 | < 10 | < 20 < 20 3800 |

TABLE 3
Terminal Wells Analytical Summary
2019 Groundwater Remediation and Monitoring Annual Report

| | Screening | | | | MW-29 | | | | | | | MW- | .30 | | | | | | | MW-31 | | |
|---|---------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Levels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Λυα-10 | Apr-10 | Aug-18 | Apr-18 | | | Aug-16 | Apr-16 | Λυα-15 | Apr-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Semi-Volatile Organic Compoun | | | Aug-19 | Aug-16 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Apr-19 | Aug-16 | Api-10 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-13 | Aug-19 | Aug-16 | Aug-17 | Aug-16 | Aug-15 |
| 1,2,4-Trichlorobenzene | 70 | (2) | | | | | | | | | | | | | | | | | l | | | |
| 1,2-Dichlorobenzene | 600 | (2) | | | | | | | | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | - | (2) | | | | | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | 75 | (2) | | | | | | | | | | | | | | | | | | | | |
| 1-Methylnaphthalene | 11 | (5) | | | | | | | | | | | | | | | | | | | | |
| 2,4,5-Trichlorophenol | 1166 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 11.9 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 45.3 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 354 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,4-Dinitrophenol | 38.7 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 2.375 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 0.485 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 733 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 91 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 36 | (1) | | | | | | | | | | | | | | | | | | | | |
| 2-Methylphenol | 930 | (1) | | | | | | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 190 | (1) | | | | | | | | | | | | | | | | | | | | |
| 2-Nitrophenol | - | | | | | | | | | | | | | | | | | | | | | |
| 3,3'-Dichlorobenzidine | 1.25 | (4) | | | | | | | | | | | | | | | | | | | | |
| 3+4-Methylphenol | 930 | (1) | | | | | | | | | | | | | | | | | | | | |
| 3-Nitroaniline | - | | | | | | | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 1.52 | (4) | | | | | | | | | | | | | | | | | | | | |
| 4-Bromophenyl phenyl ether | - | | | | | | | | | | | | | | | | | | | | | |
| 4-Chloro-3-methylphenol | - | | | | | | | | | | | | | | | | | | | | | |
| 4-Chloroaniline | 3.7 | (5) | | | | | | | | | | | | | | | | | | | | |
| 4-Chlorophenyl phenyl ether | - | | | | | | | | | | | | | | | | | | | | | |
| 4-Nitroaniline | 38 | (5) | | | | | | | | | | | | | | | | | | | | |
| 4-Nitrophenol | - | | | | | | | | | | | | | | | | | | | | | |
| Acenaphthene | 535 | (4) | | | | | | | | | | | | | | | | | | | | |
| Acenaphthylene | • | | | | | | | | | | | | | | | | | | | | | |
| Aniline | 130 | (5) | | | | | | | | | | | | | | | | | | | | |
| Anthracene | 1721 | (4) | | | | | | | | | | | | | | | | | | | | |
| Azobenzene | 1.2 | (5) | | | | | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene Benzo(a)pyrene | 0.1199 0.2 | (4) | | | | | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 0.3432 | (4) | | | | | | | | | | | | | | | | | | | | |
| Benzo(g,h,i)perylene | - | (4) | | | | | | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | 3.43 | (4) | | | | | | | | | | | | | | | | | | | | |
| Benzoic acid | 75000 | (1) | | | | | | | | | | | | | | | | | | | | |
| Benzyl alcohol | 2000 | (1) | | | | | | | | | | | | | | | | | | | | |
| Bis(2-chloroethoxy)methane | 59 | (1) | | | | | | | | | | | | | | | | | | | | |
| Bis(2-chloroethyl)ether | 0.137 | (4) | | | | | | | | | | | | | | | | | | | | |
| Bis(2-chloroisopropyl)ether | 9.81 | (4) | | | | | | | | | | | | | | | | | | | | |
| Bis(2-ethylhexyl)phthalate | 6 | (2) | | | | | | | | | | | | | | | | | | | | |
| Butyl benzyl phthalate | 160 | (5) | | | | | | | | | | | | | | | | | | | | |
| Carbazole | - | | | | | | | | | | | | | | | | | | | | | |
| Chrysene | 34.3171 | (4) | | | | | | | | | | | | | | | | | | | | |
| Dibenz(a,h)anthracene | 0.0343 | (4) | | | | | | | | | | | | | | | | | | | | |
| Dibenzofuran | - 4.4000 | (4) | | | | | | | | | | | | | | | | | | | | |
| Diethyl phthalate | 14800 | (4) | | | | | | | | | | | | | | | | | | | | |
| Dimethyl phthalate | - 005 | (4) | | | | | | | | | | | | | | | | | | | | |
| Di-n-butyl phthalate Di-n-octyl phthalate | 885 | (4) | | | | | | | | | | | | | | | | | | | | |
| Fluoranthene | 802 | (4) | | | | | | | | | | | | | | | | | | | | |
| Fluorene | 288 | (4) (4) | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 0.0976 | (4) | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 1.387 | (4) | | | | | | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 0.411 | (4) | | | | | | | | | | | | | | | | | | | | |
| Hexachloroethane | 3.2842 | (4) | | | | | | | | | | | | | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 0.3432 | (4) | | | | | | | | | | | | | | | | | | | | |
| Isophorone | 781 | (4) | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | 1.65 | (4) | | | | | | | | | | | | | | | | | | | | |
| Nitrobenzene | 1.4 | (4) | | | | | | | | | | | | | | | | | | | | |
| N-Nitrosodimethylamine | 0.0049 | (4) | | | | | | | | | | | | | | | | | | | | |
| N-Nitrosodi-n-propylamine | 0.11 | (5) | | | | | | | | | | | | | | | | | | | | |
| N-Nitrosodiphenylamine | 121.922 | (4) | | | | | | | | | | | | | | | | | | | | |

TABLE 3 Terminal Wells Analytical Summary 2019 Groundwater Remediation and Monitoring Annual Report

| | Screening | | | | MW-29 | | | | | | | MW- | -30 | | | | | | | MW-31 | | |
|----------------------------------|-----------|--------|----------|-----------|-----------|-----------|-----------|--------|--------|--------|--------|--------|--------|-----------|--------|-----------|--------|-----------|-----------|-----------|----------|-----------|
| | Levels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Pentachlorophenol | 0.4129 | (4) | Aug-19 | Aug-10 | Aug-17 | Aug-10 | Aug-13 | Aug-19 | | | | Aug-17 | Apr-17 | | | Aug-13 | | Aug-19 | | | | Aug-15 |
| Phenanthrene | 170.4146 | (4) | | | | | | | | | | | | | | | | | | | | |
| Phenol | 5761 | (4) | | | | | | | | | | | | | | | | | | | | |
| Pyrene | 117 | (4) | | | | | | | | | | | | | | | | | | | | |
| Pyridine | 20 | (1) | | | | | | | | | | | | | | | | | | | | |
| General Chemistry (mg/L) | | (' / | | | | | | | | | | | | | | | | | | | | |
| Fluoride | 1.6 | (3) | 0.14 | <0.50 | 0.22 | 0.32 | 0.26 | | | | | | | < 0.50 | | < 0.10 | | <0.50 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Chloride | 250 | (3) | 40 | 110 | 110 | 45 | 33 | | | | | | | 230 | | 230 | | 130 | 170 | 170 | 220 | 200 |
| Nitrite | 1 | (3) | 0.92 | 7.1 | < 0.10 | < 0.10 | < 0.10 | | | | | | | < 0.50 | | < 2.0 | | 0.13 J | < 1.0 | < 1.0 | < 1.0 | < 0.10 |
| Bromide | - | (-) | 0.28 | 0.87 | 0.98 | 0.38 | 0.34 | | | | | | | 3.8 | | < 0.10 | | 2.9 | 1.7 | 1.7 | < 0.10 | < 0.10 |
| Nitrate | 10 | (3) | 7.1 | 7.1 | 5.0 | 1.2 | 0.5 | | | | | | | < 0.50 | | 1 | | 0.13 J | < 1.0 | < 1.0 | < 1.0 | 0.63 |
| Phosphorus | - | (-) | <2.5 H | 1.4 JH | < 0.50 | < 0.50 | < 0.50 | | | | | | | < 2.5 | | < 0.50 | | <2.5 H | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Sulfate | 600 | (3) | 210 | 320 | 350 | 180 | 160 | | | | | | | 69 | | 36 | | 79 | 78 | 78 | 160 | 17 |
| Carbon Dioxide (CO ₂₎ | - | | 250 | 280 | 300 | 260 | 230 | | | | | | | 1300 | | 1400 | | 960 | 1100 H | 1100 | 1000 | 1100 |
| Alkalinity (CaCO ₃) | - | | 266.8 | 309.2 | 318.6 | 284.2 | 250.8 | | | | | | | 1403 | | 1493 | | 1073 | 1217 | 1164 | 1115 | 1264 |
| Bicarbonate (CaCO ₃) | - | | 266.8 | 309.2 | 318.6 | 284.2 | 250.8 | | | | | | | 1403 | | 1493 | | 1073 | 1217 | 1164 | 1115 | 1264 |
| Total Metals (mg/L) | | | 200.0 | 309.2 | 310.0 | 204.2 | 230.0 | | | | | | | 1403 | | 1493 | | 1073 | 1217 | 1104 | 1113 | 1204 |
| Arsenic | 0.01 | (3) | <0.020 | 0.0022 | < 0.050 | < 0.020 | < 0.020 | | | | | | | < 0.020 | | < 0.020 | | <0.020 | <0.020 | 0.015 J | < 0.020 | < 0.020 |
| Barium | 2.0 | (3) | 0.066 | 0.0022 | 0.049 | 0.020 | 0.041 | | | | | | | 0.74 | | 1.1 | | 0.92 | 0.90 | 0.37 | 0.020 | 1.4 |
| Cadmium | 0.005 | (3) | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | | | | | | | < 0.0020 | | < 0.0020 | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Chromium | 0.005 | (3) | < 0.0020 | < 0.0020 | < 0.0020 | 0.0020 | < 0.0020 | | | | | | | 0.0020 | | < 0.0020 | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Lead | 0.03 | (3) | 0.0072 | 0.00031 J | < 0.0050 | < 0.0050 | < 0.0050 | | | | | | | 0.019 | | < 0.0050 | | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 |
| Selenium | 0.013 | (3) | <0.050 | 0.000313 | < 0.050 | < 0.050 | < 0.050 | | | | | | | < 0.050 | | < 0.050 | | < 0.050 | < 0.0050 | < 0.0050 | < 0.0000 | < 0.050 |
| Silver | 0.05 | (3) | 0.00066 | 0.0017 | < 0.0050 | < 0.0050 | < 0.0050 | | | | | | | < 0.0050 | | < 0.0050 | | 0.0020 J | 0.0033 J | < 0.0050 | < 0.0050 | < 0.0050 |
| Mercury | 0.002 | (3) | 0.00012J | 0.00005J | < 0.00020 | < 0.0000 | < 0.0000 | | | | | | | < 0.0000 | _ | < 0.00020 | | 0.000082J | | | | < 0.00020 |
| Dissolved Metals (mg/L) | 0.002 | (0) | 0.000120 | 0.000000 | \ 0.00020 | \ 0.000Z0 | V 0.00020 | | | | | | | V 0.00020 | | V 0.00020 | | 0.0000020 | 1 0.00020 | 1 0.00020 | 0.00020 | 1 0.00020 |
| Arsenic | 0.01 | (3) | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | | | | | | | < 0.020 | | < 0.020 | | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 |
| Barium | 1.0 | (3) | 0.014 | 0.031 | 0.03 | 0.023 | < 0.020 | | | | | | | 0.56 | | 1 | | 0.87 | 0.89 | 0.76 | 0.58 | 1.4 |
| Cadmium | 0.005 | (3) | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | | | | | | | < 0.0020 | | < 0.0020 | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Calcium | - | (0) | 75 | 130 | 130 | 83 | 74 | | | | | | | 150 | | 160 | | 110 | 110 | 100 | 110 | 110 |
| Chromium | 0.05 | (3) | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | | | | | | | < 0.0060 | | < 0.0060 | | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Copper | 1 | (3) | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | | | | | | | < 0.0060 | | < 0.0060 | | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Iron | 1 | (3) | < 0.020 | < 0.020 | < 0.020 | 0.12 | < 0.020 | | | | | | | 7.4 | | 1.5 | | 0.035 | 0.097 | 0.14 | 1,2 | 0.26 |
| Lead | 0.015 | (3) | <0.0050 | 0.0053 | < 0.0050 | < 0.0050 | < 0.0050 | | | | | | | 0.0066 | | 0.0074 | | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 |
| Magnesium | - | (-) | 17 | 30 | 28 | 18 | 17 | | | | | | | 36 | | 52 | | 37 | 38 | 32 | 38 | 45 |
| Manganese | 0.2 | (3) | 1.1 | 2,6 | 2.7 | 1.4 | 1.3 | | | | | | | 1.2 | | 2.9 | | 0.63 | 0.65 | 0.42 | 0.4 | 1.1 |
| Potassium | - | (-) | 1.8 | 2.7 | 2.6 | 2.1 | 2.2 | | | | | | | 3.3 | | 3.5 | | 3.8 | 4.0 | 3.7 | 4.1 | 4.4 |
| Selenium | 0.05 | (3) | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | | | | | | | < 0.050 | | < 0.050 | | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Silver | 0.05 | (3) | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | | | | | | | < 0.0050 | | < 0.0050 | | 0.0016 J | 0.0032 | < 0.0050 | < 0.0050 | < 0.0050 |
| Sodium | - | . , | 120 | 190 | 180 | 120 | 99 | | | | | | | 590 | | 560 | | 480 | 480 | 480 | 540 | 500 |
| Uranium | 0.03 | (3) | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | | | | | | | < 0.10 | | < 0.10 | | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Zinc | 10 | (3) | 0.016 | 0.020 | 0.035 | < 0.020 | 0.022 | | | | | | | 0.031 | | 0.034 | | 0.011 J | < 0.020 | 0.01 J | < 0.020 | 0.031 |
| Total Petroleum Hydrocarbons | | | | | | | | | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (6) | < 0.40 | < 0.40 | < 0.20 | 0.28 | < 0.20 | | | | | | | 71 | | 7.7 | | 1.1 | 0.64 | 0.71 | 1.1 | 4.2 |
| Gasoline Range Organics | 0.0101 | (6) | <0.050 | 0.024 J | < 0.050 | < 0.050 | < 0.050 | | | | | | | 100 | | 120 | | 11 | 18 | 3.1 | 3.5 | 45 |
| Motor Oil Range Organics | 0.0858 | (6) | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | | | | | | | < 25 | | < 2.5 | | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 |

- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018)
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remediation (February 2019)
- (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds
- (6) NMED SSG (June 2019)
 - = No screening level available
- * = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time
- --- = Analysis not required and/or well contains separate phase
- = Analytical result exceeds the respective screening level.
- = 6/27/13 modification on FWGWM Plan to remove MW-8 and replace with MW-52.
- ** = Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

TABLE 3
Terminal Wells Analytical Summary
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| | Screening | | | | MW-40 | | | | RV | V-42 | | | | RW-43 | | | | | MW-44 | | |
|---|-------------|--------|--------|--------|--------|---------------|--------|--------|--------|--------|--------------|--------|--------|--------|--------------------|--------|----------------|----------------|----------------|----------------|----------------|
| | Levels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Volatile Organic Compounds (u | | | Aug-13 | Aug-10 | Aug-17 | Aug-10 | Aug-10 | Aug-13 | Aug-10 | Aug-17 | Aug-10 | Aug-13 | Aug-10 | Aug-17 | Aug-10 | Aug-10 | Aug-13 | Aug-10 | Aug-17 | Aug-10 | Aug-13 |
| 1,1,1,2-Tetrachloroethane | 5.74 | (4) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1.1.1-Trichloroethane | 5 | (3) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1,1,2,2-Tetrachloroethane | 10 | (3) | | | | < 100 | | | | | < 20 | | | | < 100 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 4.0 |
| 1,1,2-Trichloroethane | 5 | (3) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1,1-Dichloroethane | 25 | (3) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1,1-Dichloroethene | 7 | (3) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1,1-Dichloropropene | - | (3) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1,2,3-Trichlorobenzene | 7 | (1) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1,2,3-Trichloropropane | 0.01 | (4) | | | | < 100 | | | | | < 20 | | | | < 100 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 4.0 |
| 1,2,4-Trichlorobenzene | 11.55 | (4) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1,2,4-Trimethylbenzene | 56 | (1) | | | | < 50 | | | | | 120 | | | | 770 | | < 1.0 | < 1.0 | < 1.0 | 1.1 | < 2.0 |
| 1,2-Dibromo-3-chloropropane | 0.2 | (2) | | | | < 100 | | | | | < 20 | | | | < 100 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 4.0 |
| 1,2-Dibromoethane (EDB) | 0.05 | (3) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1,2-Distribution (LDB) | 302 | (4) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1,2-Dichloroethane (EDC) | 1.71 | (4) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1,2-Dichloropropane | 4.376 | (4) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1,3,5-Trimethylbenzene | 60 | (1) | | | | < 50 | | | | | 13 | | | | 180 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1,3-Dichlorobenzene | - | (1) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1,3-Dichloropropane | 370 | (1) | | | | < 50 | | | | | < 10 | | | | < 50 < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1,4-Dichlorobenzene | 75 | (2) | | | | < 50 | | | | | < 10 | | | | < 50 < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| 1,4-Dichlorobenzene | 11 | (5) | | | | < 200 | | | | | 160 | | | | < 200 | | < 1.0 | < 1.0 | < 1.0 | < 4.0 | < 8.0 |
| | | (5) | | | | < 100 | | | | | < 20 | | | | < 100 | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | |
| 2,2-Dichloropropane 2-Butanone | 5565 | (4) | | | | < 500 | | | | | < 100 | | | | < 500 | | < 1.0 | < 1.0 | < 1.0 | < 10 | < 4.0 < 20 |
| 2-Chlorotoluene | 240 | | | | | | | | | | | | | | | | < 10 | < 10 | | - | < 2.0 |
| 2-Uniordidate 2-Hexanone | - | (1) | | | | < 50 < 500 | | | | | < 10 | | | | < 50 < 500 | | | < 1.0 | < 10 < 1.0 | < 1.0 < 10 | < 2.0 |
| | 36 | (4) | | | | | | | | | < 100 | | | | | | < 1.0 | | | | |
| 2-Methylnaphthalene 4-Chlorotoluene | 250 | (1) | | | | < 200 < 50 | | | | | 220 | | | | < 200 < 50 | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 4.0 < 1.0 | < 8.0 < 2.0 |
| | 250 | (1) | | | | | | | - | | < 10 | | | | | | | | | | |
| 4-Isopropyltoluene | - | | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 < 3.0 | < 1.0 | < 1.0 | < 2.0 < 20 |
| 4-Methyl-2-pentanone | - 14004 | (4) | | | | < 500 | | | | | < 100 | | | | < 500 | | < 3.0 | | < 3.0 | < 10 | |
| Acetone | 14064 | (4) | | | | < 500 | | | | | < 100 | | | | < 500 | | < 10 | < 10 | < 10 | < 10 | < 20 |
| Benzene | 5 | (3) | | | | < 50 | | | | | 6300 | | | | 2600 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| Bromobenzene | 62 | (1) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| Bromodichloromethane | 1.34 | (4) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 2.0 | < 2.0 | < 2.0 | < 1.0 | < 2.0 |
| Bromoform | 33 7.545 | (5) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 < 3.0 | < 1.0 < 3.0 | < 1.0 < 3.0 | < 1.0 < 3.0 | < 2.0 < 6.0 |
| Bromomethane | | (4) | | | | < 150 | | | | | < 30 | | | | < 150 | | | | | | |
| Carbon disulfide | 810 | (4) | | | | < 500 | | | | | < 100 | | | | < 500 | | < 1.0 | < 1.0 | < 1.0 | < 10 | < 20 |
| Carbon Tetrachloride Chlorobenzene | 5 100 | (2) | | | | < 50 < 50 | | | | | < 10 < 10 | | | | < 50 < 50 | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 2.0 < 2.0 |
| | 20900 | (2) | | | | < 100 | | | | | | | | | < 100 | | < 1.0 | < 1.0 | | < 2.0 | < 4.0 |
| Chloroethane Chloroform | 2.29 | (4) | | | | < 50 | | | | | < 20 < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 < 1.0 | < 1.0 | < 4.0 |
| | 20.3 | (4) | | | | < 150 | | | | | < 30 | | | | < 150 | | < 1.0 | < 1.0 | < 1.0 | < 3.0 | < 6.0 |
| Chloromethane | | (4) | | | | | | | | | | | | | | | | < 1.0 | | | |
| cis-1,2-DCE | 70 4.7 | (2) | | | | < 50 < 50 | | | | | < 10 < 10 | | | | < 50 < 50 | | < 1.0 < 1.0 | < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 2.0 |
| cis-1,3-Dichloropropene | | (4) | | | | | | | | | | | | | | | | | | | < 2.0 |
| Dibromochloromethane Dibromomethane | 1.68 8.3 | (4) | | | | < 50 < 50 | | | | | < 10 < 10 | | | | < 50 < 50 | | < 1.0 < 3.0 | < 1.0 < 3.0 | < 1.0 < 3.0 | < 1.0 < 1.0 | < 2.0 < 2.0 |
| Dichlorodifluoromethane | 197 | (1) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 3.0 | < 3.0 | < 3.0 | < 1.0 | < 2.0 |
| Ethylbenzene | 700 | (4) | | | | < 50 | | | | | 160 | | | | 320 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| Hexachlorobutadiene | 1.39 | (3) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 2.0 | < 2.0 | < 2.0 | < 1.0 | < 2.0 |
| Isopropylbenzene | 447 | | | | | 55 | | | | | 65 | | | | < 50 89 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| Methyl tert-butyl ether (MTBE) | 100 | (4) | | | | < 50 | | | | | 14 | | | | 670 | | 1.0 | 1.1 | 0.98J | < 1.0 | < 2.0 |
| Methylene Chloride | 5 | | | | | < 150 | | | | | < 30 | | | | < 150 | | < 1.0 | < 1.0 | < 1.0 | < 3.0 | < 6.0 |
| Naphthalene | 1.65 | (2) | | | | 110 | | | | | 300 | | | | < 150 370 | | < 1.0 | < 1.0 | < 1.0 | < 3.0 | < 4.0 |
| n-Butylbenzene | 1000 | (4) | | | | < 150 | | | | | < 30 | | | | < 150 | | < 1.0 | < 1.0 | < 1.0 | < 3.0 | < 4.0 |
| n-Butylbenzene | 660 | (1) | | | | 63 | | | | | 110 | | | | < 150 84 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| sec-Butylbenzene | 2000 | (1) | | | | < 50 | | | | | 170 | | | | < 50 | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| Sec-Butylbenzene Styrene | 100 | (1) | | | | < 50 | | | | | < 10 | | | | < 50 < 50 | | < 1.0 < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| | | (2) | | | _ | | | | | | < 10 | | | | | | | | | | |
| tert-Butylbenzene Tetrachloroethene (PCE) | 690 | (1) | | | | < 50 | | | | | | | | | < 50 | | < 1.0 | < 1.0 < 4.0 | < 1.0 | < 1.0 | < 2.0 |
| | 5 | (2) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 4.0 | | < 4.0 | < 1.0 | < 2.0 |
| Toluene | 1000 | (3) | | | | < 50 | | | | | < 10 | | | | 51 | | < 2.0 | < 2.0 | < 2.0 | < 1.0 | < 2.0 |
| trans-1,2-DCE | 100 | (2) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 10 | < 10 | < 10 | < 1.0 | < 2.0 |
| trans-1,3-Dichloropropene | 4.71 | (4) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 |
| Trichloroethene (TCE) | 5 | (2) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 10 | < 10 | < 10 | < 1.0 | < 2.0 |
| Trichlorofluoromethane | 1136 | (4) | | | | < 50 | | | | | < 10 | | | | < 50 | | < 4.0 | < 4.0 | < 4.0 | < 1.0 | < 2.0 |
| Vinyl chloride | 620 | (3) | | | | < 50 < 75 | | | | | < 10 41 | | | | < 50 | | < 1.0 < 1.5 | < 1.0 < 1.5 | < 1.0 < 1.5 | < 1.0 | < 2.0 < 3.0 |
| Xylenes, Total | | | | | | | | | | | | | | | 1100 | | - 15 | - 15 | - 15 | < 1.5 | 1 270 |

TABLE 3
Terminal Wells Analytical Summary
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| | Screening | | | | MW-40 | | | | RV | V-42 | | | | RW-43 | | | | | MW-44 | | |
|----------------------------------|---------------|------------|--------|--------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------|--------|--------|
| | Levels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Semi-Volatile Organic Compour | nds (ua/L) | | | ,g .v | , g ,, | , | | | , | , | , | | | -9 '' | , | , | | , | | , | |
| 1,2,4-Trichlorobenzene | 70 | (2) | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | 600 | (2) | | | | | | | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | - | | | | | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | 75 | (2) | | | | | | | | | | | | | | | | | | | |
| 1-Methylnaphthalene | 11 | (5) | | | | | | | | | | | | | | | | | | | |
| 2,4,5-Trichlorophenol | 1166 | (4) | | | | | | | | | | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 11.9 | (4) | | | | | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 45.3 | (4) | | | | | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 354 | (4) | | | | | | | | | | | | | | | | | | | |
| 2,4-Dinitrophenol | 38.7 | (4) | | | | | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 2.375 | (4) | | | | | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 0.485 | (4) | | | | | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 733 | (4) | | | | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 91 | (4) | | | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 36 | (1) | | | | | | | | | | | | | | | | | | | |
| 2-Methylphenol 2-Nitroaniline | 930 190 | (1) | | | | | | | | | | | | | | | | | | | |
| 2-Nitrophenol | - | (1) | | | | | | | | | | | | | | | | | | | |
| 3,3´-Dichlorobenzidine | 1.25 | (4) | | | | | | | | | | | | | | | | | | | |
| 3+4-Methylphenol | 930 | (1) | | | | | | | | | | | | | | | | | | | |
| 3-Nitroaniline | - | (1) | | | | | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 1.52 | (4) | | | | | | | | | | | | | | | | | | | |
| 4-Bromophenyl phenyl ether | - | (., | | | | | | | | | | | | | | | | | | | |
| 4-Chloro-3-methylphenol | - | | | | | | | | | | | | | | | | | | | | |
| 4-Chloroaniline | 3.7 | (5) | | | | | | | | | | | | | | | | | | | |
| 4-Chlorophenyl phenyl ether | - | | | | | | | | | | | | | | | | | | | | |
| 4-Nitroaniline | 38 | (5) | | | | | | | | | | | | | | | | | | | |
| 4-Nitrophenol | - | | | | | | | | | | | | | | | | | | | | |
| Acenaphthene | 535 | (4) | | | | | | | | | | | | | | | | | | | |
| Acenaphthylene | - | | | | | | | | | | | | | | | | | | | | |
| Aniline | 130 | (5) | | | | | | | | | | | | | | | | | | | |
| Anthracene | 1721 | (4) | | | | | | | | | | | | | | | | | | | |
| Azobenzene | 1.2 | (5) | | | | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 0.1199 | (4) | | | | | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | 0.2 | (2) | | | | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 0.3432 | (4) | | | | | | | | | | | | | | | | | | | |
| Benzo(g,h,i)perylene | - 2.42 | (4) | | | | | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | 3.43 75000 | (4) | | | | | | | | | | | | | | | | | | | |
| Benzoic acid Benzyl alcohol | 2000 | (1) | | | | | | | | | | | | | | | | | | | |
| Bis(2-chloroethoxy)methane | 59 | (1) | | | | | | | | | | | | | | | | | | | |
| Bis(2-chloroethyl)ether | 0.137 | (4) | | | | | | | | | | | | | | | | | | | |
| Bis(2-chloroisopropyl)ether | 9.81 | (4) | | | | | | | | | | | | | | | | | | | |
| Bis(2-ethylhexyl)phthalate | 6 | (2) | | | | | | | | | | | | | | | | | | | |
| Butyl benzyl phthalate | 160 | (5) | | | | | | | | | | | | | | | | | | | |
| Carbazole | - | (-) | | | | | | | | | | | | | | | | | | | |
| Chrysene | 34.3171 | (4) | | | | | | | | | | | | | | | | | | | |
| Dibenz(a,h)anthracene | 0.0343 | (4) | | | | | | | | | | | | | | | | | | | |
| Dibenzofuran | - | | | | | | | | | | | | | | | | | | | | |
| Diethyl phthalate | 14800 | (4) | | | | | | | | | | | | | | | | | | | |
| Dimethyl phthalate | - | | | | | | | | | | | | | | | | | | | | |
| Di-n-butyl phthalate | 885 | (4) | | | | | | | | | | | | | | | | | | | |
| Di-n-octyl phthalate | - | | | | | | | | | | | | | | | | | | | | |
| Fluoranthene | 802 | (4) | | | | | | | | | | | | | | | | | | | |
| Fluorene | 288 | (4) | | | | | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 0.0976 | (4) | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 1.387 | (4) | | | | | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 0.411 | (4) | | | | | | | | | | | | | | | | | | | |
| Hexachloroethane | 3.2842 | (4) | | | | | | | | | | | | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 0.3432 | (4) | | | | | | | | | | | | | | | | | | | |
| Isophorone | 781 | (4) | | | | | | | | | | | | | | | | | | | |
| Naphthalene Nitrobenzene | 1.65 1.4 | (4) | | | | | | | | | | | | | | | | | | | |
| N-Nitrosodimethylamine | 0.0049 | (4) | | | | | | | | | | | | | | | | | | | |
| N-Nitrosodi-n-propylamine | 0.0049 | (4) | | | | | | | | | | | | | | | | | | | |
| N-Nitrosodiphenylamine | 121.922 | (5) (4) | | | | | | | | | | | | | | | | | | | |
| in-initrosouiprieriyiamine | 121.922 | (4) | | | | | | | | | | | | | | | | | | | |

TABLE 3 Terminal Wells Analytical Summary 2019 Groundwater Remediation and Monitoring Annual Report

| | Screening | | | | MW-40 | | | | RW | V-42 | | | | RW-43 | | | | | MW-44 | | |
|---|-----------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|-----------|--------|--------|--------|---------------|--------|------------------|------------------------|------------------|-----------------|-----------|
| | Levels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Pentachlorophenol | 0.4129 | (4) | Aug-19 | | Aug-17 | Aug-10 | Aug-13 | Aug-19 | Aug-10 | | | Aug-19 | | | Aug-10 | Aug-15 | Aug-19 | Aug-10 | | | |
| Phenanthrene | 170.4146 | (4) | | | | | | | | | | | | | | | | | | | |
| Phenol | 5761 | (4) | | | | | | | | | | | | | | | | | | | |
| Pyrene | 117 | (4) | | | | | | | | | | | | | | | | | | | |
| Pyridine | 20 | (1) | | | | | | | | | | | | | | | | | | | |
| General Chemistry (mg/L) | | (-) | | | | | | | | | | | | | | | | | ı | | |
| Fluoride | 1.6 | (3) | | | | < 0.50 | | | | | 0.62 | | | | < 0.50 | | < 0.50 | < 0.50 | < 0.10 | 0.6 | < 0.10 |
| Chloride | 250 | (3) | | | | 290 | | | | | 260 | | | | 390 | | 50 | 48 | 46 | 56 | 55 |
| Nitrite | 1 | (3) | | | | < 0.50 | | | | | < 0.50 | | | | < 0.50 | | 0.11 | 0.079 J | < 1.0 | < 0.10 | < 0.10 |
| Bromide | - | | | | | 5 | | | | | 4.6 | | | | 3.9 | | <0.50 | 0.16 | 0.14 | 0.18 | 0.47 |
| Nitrate | 10 | (3) | | | | < 0.50 | | | | | < 0.50 | | | | < 0.50 | | 0.11 | 0.050 J | < 1.0 | < 0.10 | 0.13 |
| Phosphorus | - | | | | | < 2.5 | | | | | 3.4 | | | | 3.1 | | <10 H | < 10 | < 10 | < 10 | < 10 |
| Sulfate | 600 | (3) | | | | < 2.5 | | | | | < 2.5 | | | | 6.9 | | 3500 | 3000 | 3000 | 3000 | 3000 |
| Carbon Dioxide (CO ₂₎ | - | | | | | 1200 | | | | | 1100 | | | | 1100 | | 340 | 350 | 350 | 360 | 340 |
| Alkalinity (CaCO ₃) | - | | | | | 1190 | | | | | 1130 | | | | 1165 | | 371.1 | 373.5 | 371.8 | 376.3 | 377.6 |
| Bicarbonate (CaCO ₃) | _ | | | | | 1190 | | | | | 1130 | | | | 1165 | | 371.1 | 373.5 | 371.8 | 376.3 | 377.6 |
| , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | - | | | | | 1190 | | | | | 1130 | | | | 1103 | | 3/ 1.1 | 3/3.3 | 37 1.0 | 370.3 | 311.0 |
| Total Metals (mg/L) Arsenic | 0.01 | (2) | | 1 | 1 | - 0.020 | | | | I | 0.094 | | l | l | - 0.020 | | 0.017 J | 40.020 | 0.026 | < 0.020 | < 0.020 |
| Barium | 2.0 | (3) | | | | < 0.020 2.3 | | | | | 13 | | | | < 0.020 13 | | 0.017 3 | <0.020 0.068 | 0.026 0.066 | 0.020 | 0.020 |
| Cadmium | 0.005 | (3) | | | | < 0.0020 | | | | | < 0.0020 | | | | < 0.0020 | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Chromium | 0.005 | (3) | | | | 0.0020 | | | | | 0.16 | | | | 0.0020 | | 0.0020 0.0072 | 0.0020 | 0.0020 0.0062 | 0.0020 0.026 | 0.0020 |
| Lead | 0.03 | (3) | | | | 0.0098 | | | | | 0.10 | | | | 0.055 | | 0.0072 | < 0.0050 | < 0.0050 | < 0.0050 | 0.029 |
| Selenium | 0.015 | (3) | | | | < 0.050 | | | | | < 0.050 | | | | < 0.050 | | < 0.050 | < 0.050 | < 0.0000 | < 0.050 | < 0.050 |
| Silver | 0.05 | (3) | | | | 0.014 | | | | | < 0.0050 | | | | < 0.0050 | | 0.0056 | 0.013 | < 0.0050 | < 0.0050 | < 0.0050 |
| Mercury | 0.002 | (3) | | | | < 0.00020 | | | | | < 0.0000 | | | | < 0.0000 | | 0.00014 J | 0.000085J | < 0.0000 | < 0.0000 | |
| Dissolved Metals (mg/L) | 0.002 | (0) | | | | < 0.000Z0 | | | | | ₹ 0.00020 | | | | ₹ 0.00020 | | 0.000140 | 0.000000 | < 0.00020 | < 0.00020 | ₹ 0.00020 |
| Arsenic | 0.01 | (3) | | | | < 0.020 | | | | | < 0.020 | | | | < 0.020 | | <0.020 | <0.020 | 0.034 | < 0.020 | < 0.020 |
| Barium | 1.0 | (3) | | | | 1.8 | | | | | 6.4 | | | | 1.1 | | 0.0096 | 0.01 | 0.011J | 0.02 | < 0.020 |
| Cadmium | 0.005 | (3) | | | | < 0.0020 | | | | | < 0.0020 | | | | < 0.0020 | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Calcium | - | (-) | | | | 97 | | | | | 120 | | | | 180 | | 470 | 480 | 480 | 480 | 470 |
| Chromium | 0.05 | (3) | | | | < 0.0060 | | | | | 0.014 | | | | 0.27 | | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Copper | 1 | (3) | | | | < 0.0060 | | | | | < 0.0060 | | | | 0.017 | | 0.0024 J | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Iron | 1 | (3) | | | | 4.9 | | | | | 69 | | | | 27 | | 0.014 J | 0.029 | 0.032 | 2.9 | 0.036 |
| Lead | 0.015 | (3) | | | | < 0.0050 | | | | | 0.036 | | | | 0.015 | | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 |
| Magnesium | - | | | | | 44 | | | | | 74 | | | | 63 | | 59 | 58 | 58 | 59 | 59 |
| Manganese | 0.2 | (3) | | | | 2.3 | | | | | 4 | | | | 6.5 | | 0.43 | 0.68 | 0.79 | 1.2 | 0.99 |
| Potassium | - | | | | | 3.5 | | | | | 5.4 | | | | 14 | | 7.6 | 7.2 | 7.1 | 7.9 | 7.9 |
| Selenium | 0.05 | (3) | | | | < 0.050 | | | | | < 0.050 | | | | < 0.050 | | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Silver | 0.05 | (3) | | | | < 0.0050 | | | | | < 0.0050 | | | | < 0.0050 | | 0.0063 | 0.014 | < 0.0050 | < 0.0050 | < 0.0050 |
| Sodium | - | | | | | 440 | | | | | 400 | | | | 440 | | 880 | 850 | 910 | 990 | 960 |
| Uranium | 0.03 | (3) | | | | < 0.10 | | | | | < 0.10 | | | | < 0.10 | | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Zinc | 10 | (3) | | | | 0.031 | | | | | 0.17 | | | | 3 | | 0.024 | < 0.020 | 0.032 | 0.056 | < 0.020 |
| Total Petroleum Hydrocarbons | | | | | | | | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (6) | | | | 110 | | | | | 85 | | | | 1200 | | < 0.40 | < 0.40 | < 0.20 | < 0.20 | < 0.20 |
| Gasoline Range Organics | 0.0101 | (6) | | | | 4.9 | | | | | 24 | | | | 27 | | < 0.050 | 0.026 J | < 0.050 | 0.057 | < 0.050 |
| Motor Oil Range Organics | 0.0858 | (6) | | | | < 25 | | | | | < 25 | | | | < 250 | | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 |

- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018)
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remediation (February 2019)
- (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds
- (6) NMED SSG (June 2019)
- = No screening level available
- * = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time
- --- = Analysis not required and/or well contains separate phase
- = Analytical result exceeds the respective screening level.
- = 6/27/13 modification on FWGWM Plan to remove MW-8 and replace with MW-52.
- ** = Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

TABLE 3
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| | Screening | Cauraa | | | | ¹ MW-52 | | | |
|--|-------------|------------|----------------|----------------|--------|--------------------|--------|----------------|--------|
| | Levels | Source | Aug-19 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compounds (u | ıg/L) | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 5.74 | (4) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1,1-Trichloroethane | 5 | (3) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1,2,2-Tetrachloroethane | 10 | (3) | < 2.0 | < 2.0 | | < 2.0 | | < 2.0 | |
| 1,1,2-Trichloroethane | 5 | (3) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1-Dichloroethane | 25 | (3) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1-Dichloroethene | 7 | (3) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1-Dichloropropene | - | | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2,3-Trichlorobenzene | 7 | (1) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2,3-Trichloropropane | 0.01 | (4) | < 2.0 | < 2.0 | | < 2.0 | | < 2.0 | |
| 1,2,4-Trichlorobenzene | 11.55 | (4) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2,4-Trimethylbenzene | 56 | (1) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2-Dibromo-3-chloropropane | 0.2 | (2) | < 2.0 | < 2.0 | | < 2.0 | | < 2.0 | |
| 1,2-Dibromoethane (EDB) | 0.05 | (3) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2-Dichlorobenzene | 302 1.71 | (4) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2-Dichloroethane (EDC) 1,2-Dichloropropane | 4.376 | (4) | < 1.0 < 1.0 | < 1.0 < 1.0 | | < 1.0 < 1.0 | | < 1.0 < 1.0 | |
| 1,3,5-Trimethylbenzene | 60 | (4) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,3-Dichlorobenzene | - | (1) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,3-Dichloropropane | 370 | (1) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,4-Dichlorobenzene | 75 | (1) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 1-Methylnaphthalene | 11 | (5) | < 4.0 | < 4.0 | | < 4.0 | | < 4.0 | |
| 2,2-Dichloropropane | - | (3) | < 2.0 | < 2.0 | | < 2.0 | | < 2.0 | |
| 2-Butanone | 5565 | (4) | < 10 | < 10 | | < 10 | | < 10 | |
| 2-Chlorotoluene | 240 | (1) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 2-Hexanone | - | (.) | < 10 | < 10 | | < 10 | | < 10 | |
| 2-Methylnaphthalene | 36 | (1) | < 4.0 | < 4.0 | | < 4.0 | | < 4.0 | |
| 4-Chlorotoluene | 250 | (1) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 4-Isopropyltoluene | - | (- / | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| 4-Methyl-2-pentanone | - | | < 10 | < 10 | | < 10 | | < 10 | |
| Acetone | 14064 | (4) | <0.010 | 2.5 J | | < 10 | | < 10 | |
| Benzene | 5 | (3) | < 1.0 | < 1.0 | <1.0 | < 1.0 | <1.0 | < 1.0 | <1.0 |
| Bromobenzene | 62 | (1) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| Bromodichloromethane | 1.34 | (4) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| Bromoform | 33 | (5) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| Bromomethane | 7.545 | (4) | < 3.0 | < 3.0 | | < 3.0 | | < 3.0 | |
| Carbon disulfide | 810 | (4) | < 10 | < 10 | | < 10 | | < 10 | |
| Carbon Tetrachloride | 5 | (2) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| Chlorobenzene | 100 | (2) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| Chloroethane | 20900 | (4) | < 2.0 | < 2.0 | | < 2.0 | | < 2.0 | |
| Chloroform | 2.29 | (4) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| Chloromethane | 20.3 | (4) | < 3.0 | < 3.0 | | < 3.0 | | < 3.0 | |
| cis-1,2-DCE | 70 | (2) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| cis-1,3-Dichloropropene | 4.7 | (4) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| Dibromochloromethane | 1.68 | (4) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| Dibromomethane | 8.3 | (1) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| Dichlorodifluoromethane | 197 | (4) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| Ethylbenzene | 700 | (3) | < 1.0 | < 1.0 | <1.0 | < 1.0 | <1.0 | < 1.0 | <1.0 |
| Hexachlorobutadiene | 1.39 | (4) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| Isopropylbenzene | 447 | (4) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| Methyl tert-butyl ether (MTBE) | 100 | (3) | 0.57 J | < 1.0 | <1.0 | < 1.0 | <1.0 | < 1.0 | <1.0 |
| Methylene Chloride | 5 | (2) | < 3.0 | < 3.0 | | < 3.0 | | < 3.0 | |
| Naphthalene | 1.65 | (4) | < 2.0 | < 2.0 | | < 2.0 | | < 2.0 | |
| n-Butylbenzene | 1000 | (1) | < 3.0 | < 3.0 | | < 3.0 | | < 3.0 | |
| n-Propylbenzene | 660 | (1) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| sec-Butylbenzene | 2000 | (1) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| Styrene tert-Rutylbenzene | 100 | (2) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| tert-Butylbenzene Tetrachloroethene (PCE) | 690 5 | (1) | < 1.0 < 1.0 | < 1.0 < 1.0 | | < 1.0 < 1.0 | | < 1.0 < 1.0 | |
| | | (2) | | | | | | | |
| Toluene trans-1,2-DCE | 1000 | (3) | < 1.0 | < 1.0 | <1.0 | < 1.0 | <1.0 | < 1.0 | <1.0 |
| trans-1,3-Dichloropropene | 100 4.71 | (2) | < 1.0 < 1.0 | < 1.0 < 1.0 | | < 1.0 < 1.0 | | < 1.0 < 1.0 | |
| Trichloroethene (TCE) | 5 | (4) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| ` / | 1136 | (2) (4) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |
| Trichlorofluoromethane | | | - 1.U | \ 1.0 | | \ I.U | | \ \ I.U | |
| Trichlorofluoromethane Vinyl chloride | 2 | (3) | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | |

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| | Screening | Source | | | | ¹ MW-52 | | | |
|---------------------------------|-------------|------------|--------|--------|--------|--------------------|--------|--------|--------|
| | Levels | Source | Aug-19 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| emi-Volatile Organic Compou | ınds (ug/L) | | | | | | | | |
| 1,2,4-Trichlorobenzene | 70 | (2) | | | | < 10 | | | |
| 1,2-Dichlorobenzene | 600 | (2) | | | | < 10 | | | |
| 1,3-Dichlorobenzene | - | | | | | < 10 | | | |
| 1,4-Dichlorobenzene | 75 | (2) | | | | < 10 | | | |
| 1-Methylnaphthalene | 11 | (5) | | | | < 10 | | | |
| 2,4,5-Trichlorophenol | 1166 | (4) | | | | < 10 | | | |
| 2,4,6-Trichlorophenol | 11.9 | (4) | | | | < 10 | | | |
| 2,4-Dichlorophenol | 45.3 | (4) | | | | < 20 | | | |
| 2,4-Dimethylphenol | 354 | (4) | | | | < 10 | | | |
| 2,4-Dinitrophenol | 38.7 | (4) | | | | < 20 | | | |
| 2,4-Dinitrotoluene | 2.375 | (4) | | | | < 10 | | | |
| 2,6-Dinitrotoluene | 0.485 | (4) | | | | < 10 | | | |
| 2-Chloronaphthalene | 733 | (4) | | | | < 10 | | | |
| 2-Chlorophenol | 91 | (4) | | | | < 10 | | | |
| 2-Methylnaphthalene | 36 | (1) | | | | < 10 | | | |
| 2-Methylphenol | 930 | (1) | | | | < 10 | | | |
| 2-Nitroaniline | 190 | (1) | | | | < 10 | | | |
| 2-Nitrophenol | - | . , | | | | < 10 | | | |
| 3,3'-Dichlorobenzidine | 1.25 | (4) | | | | < 10 | | | |
| 3+4-Methylphenol | 930 | (1) | | | | < 10 | | | |
| 3-Nitroaniline | - | (-) | | | | < 10 | | | |
| 4,6-Dinitro-2-methylphenol | 1.52 | (4) | | | | < 20 | | | |
| 4-Bromophenyl phenyl ether | - | (- / | | | | < 10 | | | |
| 4-Chloro-3-methylphenol | - | | | | | < 10 | | | |
| 4-Chloroaniline | 3.7 | (5) | | | | < 10 | | | |
| 4-Chlorophenyl phenyl ether | - | (0) | | | | < 10 | | | |
| 4-Nitroaniline | 38 | (5) | | | | < 10 | | | |
| 4-Nitrophenol | - | (0) | | | | < 10 | | | |
| Acenaphthene | 535 | (4) | | | | < 10 | | | |
| Acenaphthylene | - | (4) | | | | < 10 | | | |
| Acenaphthylene | 130 | (5) | | | | < 10 | | | |
| | 1721 | (5) | | | | < 10 | | | |
| Anthracene | 1.2 | (4) | | | | | | | |
| Azobenzene | | (5) | | | | < 10 | | | |
| Benzo(a)anthracene | 0.1199 | (4) | | | | < 10 | | | |
| Benzo(a)pyrene | 0.2 | (2) | | | | < 10 | | | |
| Benzo(b)fluoranthene | 0.3432 | (4) | | | | < 10 | | | |
| Benzo(g,h,i)perylene | - | (4) | | | | < 10 | | | |
| Benzo(k)fluoranthene | 3.43 | (4) | | | | < 10 | | | |
| Benzoic acid | 75000 | (1) | | | | < 20 | | | |
| Benzyl alcohol | 2000 | (1) | | | | < 10 | | | |
| Bis(2-chloroethoxy)methane | 59 | (1) | | | | < 10 | | | |
| Bis(2-chloroethyl)ether | 0.137 | (4) | | | | < 10 | | | |
| Bis(2-chloroisopropyl)ether | 9.81 | (4) | | | | < 10 | | | |
| Bis(2-ethylhexyl)phthalate | 6 | (2) | | | | < 10 | | | |
| Butyl benzyl phthalate | 160 | (5) | | | | < 10 | | | |
| Carbazole | - | | | | | < 10 | | | |
| Chrysene | 34.3171 | (4) | | | | < 10 | | | |
| Dibenz(a,h)anthracene | 0.0343 | (4) | | | | < 10 | | | |
| Dibenzofuran | - | | | | | < 10 | | | |
| Diethyl phthalate | 14800 | (4) | | | | < 10 | | | |
| Dimethyl phthalate | - | | | | | < 10 | | | |
| Di-n-butyl phthalate | 885 | (4) | | | | < 10 | | | |
| Di-n-octyl phthalate | - | | | | | < 10 | | | |
| Fluoranthene | 802 | (4) | | | | < 10 | | | |
| Fluorene | 288 | (4) | | | | < 10 | | | |
| Hexachlorobenzene | 0.0976 | (4) | | | | < 10 | | | |
| Hexachlorobutadiene | 1.387 | (4) | | | | < 10 | | | |
| Hexachlorocyclopentadiene | 0.411 | (4) | | | | < 10 | | | |
| Hexachloroethane | 3.2842 | (4) | | | | < 10 | | | |
| Indeno(1,2,3-cd)pyrene | 0.3432 | (4) | | | | < 10 | | | |
| Isophorone | 781 | (4) | | | | < 10 | | | |
| Naphthalene | 1.65 | (4) | | | | < 10 | | | |
| Nitrobenzene | 1.4 | (4) | | | | < 10 | | | |
| N-Nitrosodimethylamine | 0.0049 | (4) | | | | < 10 | | | |
| N-Nitrosodi-n-propylamine | 0.0043 | (5) | | | | < 10 | | | |
| 14 1410 00001-11-propylatilitie | 121.922 | (4) | | | | < 10 | | | |

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| Levels Levels Pentachlorophenol 0.4129 (4) | | Screening | | | | | ¹ MW-52 | | | |
|---|----------------------------------|-----------|--------|----------|----------|--------|--------------------|------|----------|--------|
| Pentachlorophenol 0.4129 (4) | | • | Source | A.u. 10 | A 47 | Ans 47 | | A 4C | A 45 | A 4 E |
| Phenanthrene 170.4146 (4) | Ponto ablancab an al | | (4) | Aug-19 | Aug-17 | | | • | Aug-15 | Apr-15 |
| Phenol 5761 (4) | | ***** | | | | | | | | |
| Pyrene 117 | | | | | | | - | | | |
| Pyridine | | | | | | | - | | | |
| General Chemistry (mg/L) | , | | | | | | _ | | | |
| Fluoride | , | 20 | (1) | | | | < 10 | | | |
| Chloride 250 (3) 830 750 640 560 Nitrite 1 (3) 39 42.0 42 < 2.0 | , , , , | 4.0 | (0) | 0.50 | 0.00 | | 0.50 | | 0.44 | |
| Nitrite | | | | | | | | | _ | |
| Bromide | | | | | | | | | | |
| Nitrate | | ı | (3) | | | | | | - | |
| Phosphorus | | - | (0) | | | | | | | |
| Sulfate 600 (3) 1400 1200 1400 1100 | | - | (3) | | | | | | | |
| Carbon Dioxide (CO ₂) | - | | (0) | | | | | | | |
| Alkalinity (CaCO ₃) - 358.2 203.2 175 207.5 Bicarbonate (CaCO ₃) - 358.2 203.2 175 207.5 | | 600 | (3) | | | | | | | |
| Bicarbonate (CaCO ₃) | (2) | - | | 340 | 220 | | 180 | | 200 | |
| Total Metals (mg/L) | Alkalinity (CaCO ₃) | - | | 358.2 | 203.2 | | 175 | | 207.5 | |
| Arsenic 0.01 (3) < 0.020 < 0.050 < 0.020 < 0.020 < 0.020 < 0.020 < 0.020 < 0.020 < 0.020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0020 < 0.0020 < 0.0020 <td>Bicarbonate (CaCO₃)</td> <td>-</td> <td></td> <td>358.2</td> <td>203.2</td> <td></td> <td>175</td> <td></td> <td>207.5</td> <td></td> | Bicarbonate (CaCO ₃) | - | | 358.2 | 203.2 | | 175 | | 207.5 | |
| Arsenic 0.01 (3) < 0.020 < 0.050 < 0.020 < 0.020 < 0.020 < 0.020 < 0.020 < 0.020 < 0.020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0020 < 0.0020 < 0.0020 <td>Total Metals (mg/L)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | Total Metals (mg/L) | | | | | | | | | |
| Barium 2.0 (3) 0.057 0.24 0.14 0.099 Cadmium 0.005 (3) < 0.0020 < 0.0020 < 0.0020 < 0.0020 Chromium 0.05 (3) < 0.0060 0.0056 J < 0.0060 < 0.0060 Lead 0.015 (3) < 0.0045 J < 0.0050 < 0.0059 < 0.0050 Selenium 0.05 (3) < 0.050 < 0.050 < 0.065 < 0.0669 Silver 0.05 (3) 0.0023 J < 0.0050 < 0.0050 < 0.0050 Mercury 0.002 (3) 0.00013 J 0.00020 < 0.00020 < 0.00020 Dissolved Metals (mg/L) | | 0.01 | (3) | < 0.020 | < 0.050 | | < 0.020 | | < 0.020 | |
| Cadmium 0.005 (3) < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.020 < | | | | | | | | | | |
| Chromium 0.05 (3) <0.0060 0.0056 J < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.00020 < 0.0020 < 0.0020 < 0.020 < 0.0220 < 0.0020 < 0.0020 < 0.0020 < | | - | | | _ | | _ | | | |
| Lead 0.015 (3) 0.0045 J < 0.0050 0.0059 < 0.0050 0.066 0.066 0.066 0.066 0.066 0.066 0.066 0.066 0.066 0.066 0.066 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.00020 < 0.00020 < 0.00020 < 0.00020 < 0.00020 < 0.00020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0 | | | | | | | | | | |
| Selenium 0.05 (3) < 0.050 < 0.050 0.065 0.069 Silver 0.05 (3) 0.0023 J < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0000 < 0.0000 < 0.0000 < 0.0000 < 0.0000 < 0.0000 < 0.0000 < 0.0000 < 0.0000 < 0.0000 < 0.0000 < 0.0000 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020< | | | | | | | | | | |
| Silver 0.05 (3) 0.0023 J < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.00020 < 0.00020 < 0.00020 < 0.00020 < 0.00020 < 0.00020 < 0.00020 < 0.00020 < 0.00020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 | | | | | | | | | | |
| Mercury 0.002 (3) 0.00013 J 0.00020 0.00020 0.00020 0.00020 0.00020 0.00020 0.00020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.0020 0.022 0.0020 0.022 0.0020 0.022 0.0020 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0 | | | | | | | | | | |
| Dissolved Metals (mg/L) | | | | | | | | | | |
| Arsenic 0.01 (3) <0.020 <0.10 <0.020 <0.020 <0.020 <0.020 <0.020 <0.020 <0.020 <0.020 <0.020 <0.020 <0.020 <0.020 <0.0020 <0.0020 <0.0020 <0.0020 <0.0020 <0.0020 <0.0020 <0.0020 <0.0020 <0.0020 <0.0020 <0.0020 <0.0020 <0.0020 <0.0020 <0.0060 <0.0060 <0.0060 <0.0060 <0.0060 <0.0060 <0.0060 <0.0060 <0.0060 <0.0060 <0.0060 <0.0060 <0.0060 <0.0060 <0.0060 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 <0.0050 | | | (-) | | | | | | | |
| Barium 1.0 (3) 0.032 0.015 J 0.021 < 0.020 Cadmium 0.005 (3) < 0.0020 | | 0.01 | (3) | <0.020 | < 0.10 | | < 0.020 | | < 0.020 | |
| Cadmium 0.005 (3) < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0020 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 | Barium | 1.0 | | | 0.015 J | | | | | |
| Calcium - 160 360 380 320 Chromium 0.05 (3) < 0.0060 | Cadmium | 0.005 | | | | | | | | |
| Chromium 0.05 (3) < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < | | | (-) | | | | | | | |
| Copper 1 (3) < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0060 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.00 | | 0.05 | (3) | | | | | | | |
| Iron 1 (3) <0.020 0.0079 J 3.9 2.2 Lead 0.015 (3) <0.0050 | | 1 | | < 0.0060 | < 0.0060 | | < 0.0060 | | < 0.0060 | |
| Lead 0.015 (3) < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 77 77 3.9 5.7 3.9 100 5.7 3.9 100 5.6 4.7 3.8 4.8 5.6 4.7 9.057 0.09 0.09 0.09 0.09 0.09 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 | | 1 | | <0.020 | 0.0079 J | | 3.9 | | 2.2 | |
| Magnesium - 31 90 100 77 Manganese 0.2 (3) 0.15 2.2 5.7 3.9 Potassium - 3.8 4.8 5.6 4.7 Selenium 0.05 (3) <0.050 | Lead | 0.015 | | < 0.0050 | < 0.0050 | | < 0.0050 | | < 0.0050 | |
| Potassium - 3.8 4.8 5.6 4.7 Selenium 0.05 (3) < 0.050 | | | (-) | | | | | | | |
| Potassium - 3.8 4.8 5.6 4.7 Selenium 0.05 (3) < 0.050 | 0 | 0.2 | (3) | 0.15 | 2.2 | | 5.7 | | 3.9 | |
| Selenium 0.05 (3) < 0.050 < 0.050 0.057 0.09 Silver 0.05 (3) 0.0020 J < 0.0050 | | - | (-) | 3.8 | 4.8 | | 5.6 | | 4.7 | |
| Silver 0.05 (3) 0.0020 J < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 0.0050 < 560 560 560 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.066 Zinc 10 (3) 0.044 0.033 0.2 0.066 | Selenium | 0.05 | (3) | < 0.050 | < 0.050 | | 0.057 | | 0.09 | |
| Sodium - 72 640 650 560 Uranium 0.03 (3) < 0.10 | | | | | | | < 0.0050 | | < 0.0050 | |
| Uranium 0.03 (3) < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 < 0.10 | | | (-) | | | | | | | |
| Zinc 10 (3) 0.044 0.033 0.2 0.066 | | 0.03 | (3) | | | | | | | |
| | | | | | | | | | | |
| | - | | \5/ | | | | | | | |
| | | | (6) | < 0.40 | < 0.20 | | < 0.20 | | < 0.20 | |
| | 9 9 | | . , | | | | | | | |
| | 0 0 | | | | | | | | | |

- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018)
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remediation (February 2019)
- (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds
- (6) NMED SSG (June 2019)
- = No screening level available
- * = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time
- --- = Analysis not required and/or well contains separate phase
- = Analytical result exceeds the respective screening level.
- = 6/27/13 modification on FWGWM Plan to remove MW-8 and replace with MW-52.
- = Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

TABLE 4
Cross-Gradient Wells Analytical Summary
2019 Groundwater Remediation and Monitoring Annual Report

| | Screening | 0 | | | | | MW-1 | l | | | | | | | | | MW | '-13 | | | | |
|--------------------------------|-----------|--------|--------------|--------|--------|--------|--------|--------|--------|--------|--------------|--------|--------|--------|--------------|--------|--------|-------------|--------|--------|--------|--------|
| | Levels | Source | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compounds (ug | g/L) | | | | | | | | | | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 5.74 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1,1-Trichloroethane | 5 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1,2,2-Tetrachloroethane | 10 | (3) | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| 1,1,2-Trichloroethane | 5 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1-Dichloroethane | 25 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1-Dichloroethene | 7 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1-Dichloropropene | - | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2,3-Trichlorobenzene | 7 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2,3-Trichloropropane | 0.01 | (4) | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| 1,2,4-Trichlorobenzene | 11.55 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2,4-Trimethylbenzene | 56 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2-Dibromo-3-chloropropane | 0.2 | (2) | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| 1,2-Dibromoethane (EDB) | 0.05 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2-Dichlorobenzene | 302 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2-Dichloroethane (EDC) | 1.71 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2-Dichloropropane | 4.376 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,3,5-Trimethylbenzene | 60 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,3-Dichlorobenzene | - | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,3-Dichloropropane | 370 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,4-Dichlorobenzene | 75 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1-Methylnaphthalene | 11 | (5) | < 4.0 | | 0.51 J | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | |
| 2,2-Dichloropropane | - | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| 2-Butanone | 5565 | (4) | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | |
| 2-Chlorotoluene | 240 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 2-Hexanone | - | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | |
| 2-Methylnaphthalene | 36 | (1) | < 4.0 | | 0.75 J | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | |
| 4-Chlorotoluene | 250 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 4-Isopropyltoluene | - | ì | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 4-Methyl-2-pentanone | - | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | |
| Acetone | 14064 | (4) | <10 | | < 10 | | 2.2 J | | < 10 | | < 10 | | <10 | | <10 | | 3.2 J | | < 10 | | < 10 | |
| Benzene | 5 | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bromobenzene | 62 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Bromodichloromethane | | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Bromoform | 33 | (5) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Bromomethane | 7.545 | (4) | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | |
| Carbon disulfide | 810 | (4) | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | |
| Carbon Tetrachloride | | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Chlorobenzene | 100 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Chloroethane | 20900 | (4) | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| Chloroform | 2.29 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Chloromethane | 20.3 | (4) | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | |
| cis-1,2-DCE | 70 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| cis-1,3-Dichloropropene | 4.7 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Dibromochloromethane | 1.68 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Dibromomethane | 8.3 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Dichlorodifluoromethane | 197 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Ethylbenzene | 700 | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Hexachlorobutadiene | 1.39 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Isopropylbenzene | 447 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| isopropyinerizerie | 771 | (¬) | \ 1.0 | | \ 1.U | | \ 1.U | | \ 1.U | | \ 1.0 | | \ 1.0 | | \ 1.0 | | \ 1.U | 1 | \ 1.0 | | \ 1.U | |

TABLE 4
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| | Screening | | | | | | MW-1 | | | | | | | | | | MW- | -13 | | | | |
|--------------------------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Levels | Source | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Methyl tert-butyl ether (MTBE) | 100 | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.72 J | < 1.0 | 0.51 J | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Methylene Chloride | 5 | (2) | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | |
| Naphthalene | 1.65 | (4) | < 2.0 | | 0.59 J | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| n-Butylbenzene | 1000 | (1) | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | |
| n-Propylbenzene | 660 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| sec-Butylbenzene | 2000 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Styrene | 100 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| tert-Butylbenzene | 690 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Tetrachloroethene (PCE) | 5 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Toluene | 1000 | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| trans-1,2-DCE | 100 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| trans-1,3-Dichloropropene | 4.71 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Trichloroethene (TCE) | 5 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Trichlorofluoromethane | 1136 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Vinyl chloride | 2 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Xylenes, Total | 620 | (3) | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 |
| Semi-Volatile Organic Compour | nds (ug/L) | | | | | | | | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 70 | (2) | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | (2) | | | | | | | | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | - | | | | | | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | 75 | (2) | | | | | | | | | | | | | | | | | | | | |
| 1-Methylnaphthalene | 11 | (5) | | | | | | | | | | | | | | | | | | | | |
| 2,4,5-Trichlorophenol | 1166 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 11.9 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 45.3 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 354 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,4-Dinitrophenol | 38.7 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 2.375 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 0.485 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 733 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 91 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 36 | (1) | | | | | | | | | | | | | | | | | | | | |
| 2-Methylphenol | 930 | (1) | | | | | | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 190 | (1) | | | | | | | | | | | | | | | | | | | | |
| 2-Nitrophenol | - | | | | | | | | | | | | | | | | | | | | | |
| 3,3´-Dichlorobenzidine | | (4) | | | | | | | | | | | | | | | | | | | | |
| 3+4-Methylphenol | 930 | (1) | | | | | | | | | | | | | | | | | | | | |
| 3-Nitroaniline | | | | | | | | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 1.52 | (4) | | | | | | | | | | | | | | | | | | | | |
| 4-Bromophenyl phenyl ether | | | | | | | | | | | | | | | | | | | | | | |
| 4-Chloro-3-methylphenol | | | | | | | | | | | | | | | | | | | | | | |
| 4-Chloroaniline | 3.7 | (5) | | | | | | | | | | | | | | | | | | | | |
| 4-Chlorophenyl phenyl ether | | | | | | | | | | | | | | | | | | | | | | |
| 4-Nitroaniline | 38 | (5) | | | | | | | | | | | | | | | | | | | | |
| 4-Nitrophenol | | | | | | | | | | | | | | | | | | | | | | |
| Acenaphthene | 535 | (4) | | | | | | | | | | | | | | | | | | | | |
| Acenaphthylene | | | | | | | | | | | | | | | | | | | | | | |
| Aniline | | (5) | | | | | | | | | | | | | | | | | | | | |
| Anthracene | 1721 | (4) | | | | | | | | | | | | | | | | | | | | |
| Azobenzene | 1.2 | (5) | | | | | | | | | | | | | | | | | | | | |

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| | | | | | | | MW-1 | | | | | | | | | | MW- | 13 | | | | |
|-----------------------------------|----------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Levels | Source | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Benzo(a)anthracene | 0.1199 | (4) | | | | | | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | 0.2 | (2) | | | | | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 0.3432 | (4) | | | | | | | | | | | | | | | | | | | | |
| Benzo(g,h,i)perylene | - | | | | | | | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | 3.43 | (4) | | | | | | | | | | | | | | | | | | | | |
| Benzoic acid | 75000 | (1) | | | | | | | | | | | | | | | | | | | | |
| Benzyl alcohol | 2000 | (1) | | | | | | | | | | | | | | | | | | | | |
| Bis(2-chloroethoxy)methane | 59 | (1) | | | | | | | | | | | | | | | | | | | | |
| Bis(2-chloroethyl)ether | 0.137 | (4) | | | | | | | | | | | | | | | | | | | | |
| Bis(2-chloroisopropyl)ether | 9.81 | (4) | | | | | | | | | | | | | | | | | | | | |
| Bis(2-ethylhexyl)phthalate | 6 | (2) | | | | | | | | | | | | | | | | | | | | |
| Butyl benzyl phthalate | 160 | (5) | | | | | | | | | | | | | | | | | | | | |
| Carbazole | - | | | | | | | | | | | | | | | | | | | | | |
| Chrysene | 34.3171 | (4) | | | | | | | | | | | | | | | | | | | | |
| Dibenz(a,h)anthracene | 0.0343 | (4) | | | | | | | | | | | | | | | | | | | | |
| Dibenzofuran | - | | | | | | | | | | | | | | | | | | | | | |
| Diethyl phthalate | 14800 | (4) | | | | | | | | | | | | | | | | | | | | |
| Dimethyl phthalate | - | | | | | | | | | | | | | | | | | | | | | |
| Di-n-butyl phthalate | 885 | (4) | | | | | | | | | | | | | | | | | | | | |
| Di-n-octyl phthalate | - | | | | | | | | | | | | | | | | | | | | | |
| Fluoranthene | 802 | (4) | | | | | | | | | | | | | | | | | | | | |
| Fluorene | 288 | (4) | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 0.0976 | (4) | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 1.387 | (4) | | | | | | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 0.411 | (4) | | | | | | | | | | | | | | | | | | | | |
| Hexachloroethane | 3.2842 | (4) | | | | | | | | | | | | | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 0.3432 | (4) | | | | | | | | | | | | | | | | | | | | |
| Isophorone | 781 | (4) | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | 1.65 | (4) | | | | | | | | | | | | | | | | | | | | |
| Nitrobenzene | 1.4 | (4) | | | | | | | | | | | | | | | | | | | | |
| N-Nitrosodimethylamine | 0.0049 | (4) | | | | | | | | | | | | | | | | | | | | |
| N-Nitrosodi-n-propylamine | 0.11 | (5) | | | | | | | | | | | | | | | | | | | | |
| N-Nitrosodiphenylamine | 121.922 | (4) | | | | | | | | | | | | | | | | | | | | |
| Pentachlorophenol | 0.4129 | (4) | | | | | | | | | | | | | | | | | | | | |
| Phenanthrene | 170.4146 | (4) | | | | | | | | | | | | | | | | | | | | |
| Phenol | 5761 | (4) | | | | | | | | | | | | | | | | | | | | |
| Pyrene | 117 | (4) | | | | | | | | | | | | | | | | | | | | |
| Pyridine | 20 | (1) | | | | | | | | | | | - | | | | | | | | | |
| General Chemistry (mg/L) | | | | | | | | | | | | | | | | | | | | | | |
| Fluoride | 1.6 | (3) | <0.50 | | 0.32 | | 0.32 | | 0.45 | | 0.51 | | <0.50 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | |
| Chloride | 250 | (3) | 10 | | 15 | | 15 | | 11 | | 11 | | 180 | | 230 | | 240 | | 230 | | 170 | |
| Nitrite | 1 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 0.10 | | 1.8 | | 3.5 | | 2.7 | | 1.8 | | 0.16 | |
| Bromide | - | | <0.50 | | 0.12 | | 0.12 | | < 0.10 | | < 0.10 | | 2.3 | | 2.9 | | 2.9 | | 3 | | 1.2 | |
| Nitrate | 10 | (3) | <1.0 | | 0.78 J | | 0.78 J | | < 1.0 | | 0.54 | | 1.8 | | 3.5 | | 2.7 | | 1.8 | | 0.25 | |
| Phosphorus | - | | < 2.5 H | | < 0.50 | | < 0.50 | | < 0.50 | | < 0.50 | | < 2.5 H | | < 0.50 | | < 0.50 | | < 0.50 | | < 0.50 | |
| Sulfate | 600 | (3) | 120 | | 110 | | 110 | | 84 | | 110 | | 1100 | | 920 | | 860 | | 850 | | 1100 | |
| Carbon Dioxide (CO ₂) | - | | 280 H | | 320 | | 280 | | 240 | | 230 | | 860 | | 890 | | 950 | | 950 | | 890 | |
| Alkalinity (CaCO ₃) | - | | 297.3 | | 355.9 | | 301.8 | | 266.4 | | 246.5 | | 875.1 | | 954.5 | | 958.8 | | 954.3 | | 909.4 | |
| Bicarbonate (CaCO ₃) | - | | 297.3 | | 355.9 | | 301.8 | | 266.4 | | 246.5 | | 875.1 | | 954.5 | | 958.8 | | 954.3 | | 909.4 | |

TABLE 4
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| | Screening | Cauras | | | | | MW-1 | | | | | | | | | | MW- | 13 | | | | |
|---------------------------------------|-----------|--------|-----------|---------|------------|---------|------------|---------|-----------|--------|-----------|---------|----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|
| | Levels | Source | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Total Metals (mg/L) | | | | | <u> </u> | | | | | | | | | | <u> </u> | | | | | | | |
| Arsenic | 0.01 | (3) | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | |
| Barium | 2.0 | (3) | 0.070 | | 0.13 | | 0.061 | | 0.28 | | 0.031 | | 0.026 | | 0.028 | | 0.025 | | 0.052 | | 0.022 | |
| Cadmium | 0.005 | (3) | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | |
| Chromium | 0.05 | (3) | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | 0.011 | | 0.017 | | 0.0027 J | | 0.059 | | < 0.0060 | |
| Lead | 0.015 | (3) | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | |
| Selenium | 0.05 | (3) | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | |
| Silver | 0.05 | (3) | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | <0.0050 | | 0.0079 | | < 0.0050 | | < 0.0050 | | < 0.0050 | |
| Mercury | 0.002 | (3) | < 0.00020 | | 0.000083 J | | 0.000067 J | | < 0.00020 | | < 0.00020 | | <0.010 | | 0.000074 J | | < 0.00020 | | < 0.00020 | | < 0.00020 | |
| Dissolved Metals (mg/L) | | | | | | | | | | | | | | | | | | | | | • | |
| Arsenic | 0.01 | (3) | <0.020 | | <0.020 | | 0.0096 J | | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | | 0.013 J | | < 0.020 | | < 0.020 | |
| Barium | 1.0 | (3) | 0.036 | | 0.036 | | 0.036 | | 0.022 | | 0.031 | | 0.022 | | 0.022 | | 0.024 | | 0.022 | | 0.023 | |
| Cadmium | 0.005 | (3) | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | |
| Calcium | - | | 86 | | 90 | | 83 | | 65 | | 77 | | 270 | | 250 | | 230 | | 230 | | 260 | |
| Chromium | 0.05 | (3) | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | |
| Copper | 1 | (3) | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | 0.0027 | | < 0.0060 | | < 0.0060 | | < 0.0060 | |
| Iron | 1 | (3) | <0.020 | | 0.030 | | 0.012 J | | 0.22 | | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | | 0.044 | | < 0.020 | |
| Lead | 0.015 | (3) | 0.0051 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | |
| Magnesium | - | | 18 | | 19 | | 19 | | 16 | | 17 | | 96 | | 81 | | 84 | | 82 | | 96 | |
| Manganese | 0.2 | (3) | 0.012 | | 0.037 | | 0.016 | | 0.2 | | 0.037 | | 1.5 | | 1.6 | | 1.3 | | 0.95 | | 0.6 | |
| Potassium | - | | 2.1 | | 1.9 | | 2.4 | | 2.8 | | 2.2 | | 3.8 | | 3.4 | | 3.6 | | 4 | | 4.1 | |
| Selenium | 0.05 | (3) | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.25 | | < 0.050 | | < 0.050 | | < 0.050 | |
| Silver | 0.05 | (3) | < 0.0050 | | 0.0024 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | <0.0050 | | 0.0051 | | < 0.0050 | | < 0.0050 | | < 0.0050 | |
| Sodium | - | | 60 | | 57 | | 73 | | 81 | | 68 | | 530 | | 570 | | 530 | | 540 | | 570 | |
| Uranium | 0.03 | (3) | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | |
| Zinc | 10 | (3) | <0.020 | | 0.15 | | 0.031 | | 0.024 | | 0.027 | | <0.020 | | 0.040 | | 0.017 J | | < 0.020 | | 0.027 | |
| Total Petroleum Hydrocarbons (| mg/L) | | | | | | | | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (6) | < 0.40 | < 0.40 | < 0.20 | < 0.40 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.40 | | < 0.40 | | < 0.20 | | < 0.20 | | 0.28 | |
| Gasoline Range Organics | 0.0101 | (6) | < 0.050 | < 0.050 | 0.024 J | < 0.050 | < 0.050 | < 0.050 | < 0.050 | | < 0.050 | < 0.050 | <0.050 | | 0.033 J | | < 0.050 | | < 0.050 | | < 0.050 | |
| Motor Oil Range Organics | 0.0858 | (6) | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | <2.5 | | <2.5 | | <2.5 | | < 2.5 | | < 2.5 | |

- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018)
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remediation (February 2019)
- (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds
- (6) NMED SSG (June 2019)

| O) INIVILID OC | 50 (dulic 2013) |
|----------------|--|
| - | = No screening level available |
| * | = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time |
| | = Analysis not required and/or well contains separate phase |
| | = Analytical result exceeds the respective screening level. |
| 1 | = 6/27/13 modification on FWGWM Plan to remove MW-8 and replace with MW-52. |

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| | Screening | | **MW-26 | | | MW-27 | | | | MW-32 | | | | | |
|-----------------------------------|-----------|----------|---------|----------|--------|----------------|----------------|----------------|--------|----------|----------------|----------------|----------------|----------|---------------|
| Levels | | Source | Aug-19 | Aug-18 | Aug-17 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Volatile Organic Compounds (ug/L) | | 710.9 10 | 19 . 0 | <u> </u> | 7.4.9 | 7 to g . c | | 1 7.4.9 .4 | 79 | 7.4.9 .0 | 1 214.9 .0 | , g | 7.4.9 .0 | 710.9 10 | |
| 1,1,1,2-Tetrachloroethane | 5.74 | (4) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,1,1-Trichloroethane | 5 | (3) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,1,2,2-Tetrachloroethane | 10 | (3) | | | | < 2.0 | < 2.0 | < 2.0 | < 4.0 | < 4.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| 1,1,2-Trichloroethane | 5 | (3) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,1-Dichloroethane | 25 | (3) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,1-Dichloroethene | 7 | (3) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,1-Dichloropropene | - | (0) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,2,3-Trichlorobenzene | 7 | (1) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,2,3-Trichloropropane | 0.01 | (4) | | | | < 2.0 | < 2.0 | < 2.0 | < 4.0 | < 4.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| 1,2,4-Trichlorobenzene | 11.55 | (4) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,2,4-Trimethylbenzene | 56 | (1) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,2-Dibromo-3-chloropropane | 0.2 | (2) | | | | < 2.0 | < 2.0 | < 2.0 | < 4.0 | < 4.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| 1,2-Dibromoethane (EDB) | 0.05 | (3) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,2-Dichlorobenzene | 302 | (4) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,2-Dichloroethane (EDC) | 1.71 | (4) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,2-Dichloropropane | 4.376 | (4) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,3,5-Trimethylbenzene | 60 | (1) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,3-Dichlorobenzene | - | (1) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,3-Dichloropropane | 370 | (1) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,4-Dichlorobenzene | 75 | (2) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1-Methylnaphthalene | 11 | (5) | | | | < 4.0 | < 4.0 | < 4.0 | < 8.0 | < 8.0 | < 4.0 | < 4.0 | < 4.0 | < 4.0 | < 4.0 |
| 2,2-Dichloropropane | - '' | (3) | | | | < 2.0 | < 2.0 | < 2.0 | < 4.0 | < 4.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| 2-Butanone | 5565 | (4) | | | | < 10 | < 10 | < 10 | < 20 | < 20 | < 10 | < 10 | < 10 | < 10 | < 10 |
| 2-Chlorotoluene | 240 | (1) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 2-Hexanone | - | (1) | | | | < 10 | < 10 | < 1.0 | < 20 | < 20 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 10 |
| 2-Methylnaphthalene | 36 | (1) | | | | < 4.0 | < 4.0 | < 4.0 | < 8.0 | < 8.0 | < 4.0 | < 4.0 | < 4.0 | < 4.0 | < 4.0 |
| 4-Chlorotoluene | 250 | (1) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 4-Isopropyltoluene | - | (1) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 4-Methyl-2-pentanone | - | | | | | < 10 | < 10 | < 1.0 | < 20 | < 20 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 10 |
| Acetone | 14064 | (4) | | | | < 10 | < 10 | < 10 | < 20 | < 20 | < 10 | < 10 | < 10 | < 10 | < 10 |
| Benzene | 5 | (3) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bromobenzene | 62 | (1) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bromodichloromethane | 1.34 | | | | | < 1.0 | | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bromoform | 33 | (4) | | | | | < 1.0 | | < 2.0 | < 2.0 | | | | < 1.0 | |
| Bromomethane | 7.545 | (5) | | | | < 1.0 < 3.0 | < 1.0 < 3.0 | < 1.0 < 3.0 | < 6.0 | < 6.0 | < 1.0 < 3.0 | < 1.0 < 3.0 | < 1.0 < 3.0 | < 3.0 | < 1.0 |
| | 810 | (4) | | | | < 10 | < 10 | < 10 | < 20 | < 20 | < 10 | | | | < 3.0 < 10 |
| Carbon disulfide | | (4) | | | | | | | | | | < 10 | < 10 | < 10 | |
| Carbon Tetrachloride | 5 | (2) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Chlorobenzene | 100 | (2) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Chloroethane | 20900 | (4) | | | | < 2.0 | < 2.0 | < 2.0 | < 4.0 | < 4.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Chloroform | 2.29 | (4) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Chloromethane | 20.3 | (4) | | | | < 3.0 | < 3.0 | < 3.0 | < 6.0 | < 6.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 |
| cis-1,2-DCE | 70 | (2) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| cis-1,3-Dichloropropene | 4.7 | (4) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Dibromochloromethane | 1.68 | (4) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Dibromomethane | 8.3 | (1) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Dichlorodifluoromethane | 197 | (4) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Ethylbenzene | 700 | (3) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Hexachlorobutadiene | 1.39 | (4) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Isopropylbenzene | 447 | (4) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |

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| | Screening | | | **MW-26 | | | | MW-27 | | | | | MW-32 | | |
|---|-----------|------------|--------|---------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Levels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Methyl tert-butyl ether (MTBE) | 100 | (3) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Methylene Chloride | 5 | (2) | | | | < 3.0 | < 3.0 | < 3.0 | < 6.0 | < 6.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 |
| Naphthalene | 1.65 | (4) | | | | < 2.0 | < 2.0 | < 2.0 | < 4.0 | < 4.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| n-Butylbenzene | 1000 | (1) | | | | < 3.0 | < 3.0 | < 3.0 | < 6.0 | < 6.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 |
| n-Propylbenzene | 660 | (1) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| sec-Butylbenzene | 2000 | (1) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Styrene | 100 | (2) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| tert-Butylbenzene | 690 | (1) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Tetrachloroethene (PCE) | 5 | (2) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Toluene | 1000 | (3) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| trans-1,2-DCE | 100 | (2) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| trans-1,3-Dichloropropene | 4.71 | (4) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Trichloroethene (TCE) | 5 | (2) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Trichlorofluoromethane | 1136 | (4) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Vinyl chloride | 2 | (3) | | | | < 1.0 | < 1.0 | < 1.0 | < 2.0 | < 2.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Xylenes, Total | 620 | (3) | | | | < 1.5 | < 1.5 | < 1.5 | < 3.0 | < 3.0 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 |
| Semi-Volatile Organic Compound | | (-) | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 70 | (2) | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | 600 | (2) | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | - | (-/ | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | 75 | (2) | | | | | | | | | | | | | |
| 1-Methylnaphthalene | 11 | (5) | | | | | | | | | | | | | |
| 2,4,5-Trichlorophenol | 1166 | (4) | | | | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 11.9 | (4) | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 45.3 | (4) | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 354 | (4) | | | | | | | | | | | | | |
| 2,4-Dinitrophenol | 38.7 | (4) | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 2.375 | (4) | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 0.485 | (4) | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 733 | (4) | | | | | | | | | | | | | |
| 2-Chlorophenol | 91 | (4) | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 36 | (1) | | | | | | | | | | | | | |
| 2-Methylphenol | 930 | (1) | | | | | | | | | | | | | |
| 2-Nitroaniline | 190 | (1) | | | | | | | | | | | | | |
| 2-Nitrophenol | - | (1) | | | | | | | | | | | | | |
| 3,3´-Dichlorobenzidine | 1.25 | (4) | | | | | | | | | | | | | |
| 3+4-Methylphenol | 930 | (1) | | | | | | | | | | | | | |
| 3-Nitroaniline | - | (1) | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 1.52 | (4) | | | | | | | | | | | | | |
| 4-Bromophenyl phenyl ether | 1.02 | (4) | | | | | | | | | | | | | |
| 4-Chloro-3-methylphenol | | | | | | | | | | | | | | | |
| 4-Chloroaniline | 3.7 | (5) | | | | | | | | | | | | | |
| 4-Chlorophenyl phenyl ether | - - | (3) | | | | | | | | | | | | | |
| 4-Chlorophenyl phenyl ether 4-Nitroaniline | 38 | (5) | | | | | | | | | | | | | |
| 4-Nitrophenol | - - | (3) | | | | | | | | | | | | | |
| Acenaphthene | 535 | (4) | | | | | | | | | | | | | |
| - | - | (4) | | | | | | | | | | | | | |
| Acenaphthylene | 130 | (5) | | | | | | | | | | | | | |
| Aniline Anthracene | 1721 | (5) | | | | | | | | | | | | | |
| | | (4) | | | | | | | | | | | | | |
| Azobenzene | 1.2 | (5) | | | | | | | | | | | | | |

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| | Screening | | | **MW-26 | | | | MW-27 | | | | | MW-32 | | |
|---|-----------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Levels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Benzo(a)anthracene | 0.1199 | (4) | | | | | | | | | | | | | |
| Benzo(a)pyrene | 0.2 | (2) | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 0.3432 | (4) | | | | | | | | | | | | | |
| Benzo(g,h,i)perylene | - | (. / | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | 3.43 | (4) | | | | | | | | | | | | | |
| Benzoic acid | 75000 | (1) | | | | | | | | | | | | | |
| Benzyl alcohol | 2000 | (1) | | | | | | | | | | | | | |
| Bis(2-chloroethoxy)methane | 59 | (1) | | | | | | | | | | | | | |
| Bis(2-chloroethyl)ether | 0.137 | (4) | | | | | | | | | | | | | |
| Bis(2-chloroisopropyl)ether | 9.81 | (4) | | | | | | | | | | | | | |
| Bis(2-ethylhexyl)phthalate | 6 | (2) | | | | | | | | | | | | | |
| Butyl benzyl phthalate | 160 | (5) | | | | | | | | | | | | | |
| Carbazole | - | (0) | | | | | | | | | | | | | |
| Chrysene | 34.3171 | (4) | | | | | | | | | | | | | |
| Dibenz(a,h)anthracene | 0.0343 | (4) | | | | | | | | | | | | | |
| Dibenzofuran | - | (4) | | | | | | | | | | | | | |
| Diethyl phthalate | 14800 | (4) | | | | | | | | | | | | | |
| | - | (4) | | | | | | | | | | | | | |
| Dimethyl phthalate Di-n-butyl phthalate | 885 | (4) | | | | | | | | | | | | | |
| | | (4) | | | | | | | | | | | | | |
| Di-n-octyl phthalate | - | (4) | | | | | | | | | | | | | |
| Fluoranthene | 802 | (4) | | | | | | | | | | | | | |
| Fluorene | 288 | (4) | | | | | | | | | | | | | |
| Hexachlorobenzene | 0.0976 | (4) | | | | | | | | | | | | | |
| Hexachlorobutadiene | 1.387 | (4) | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 0.411 | (4) | | | | | | | | | | | | | |
| Hexachloroethane | 3.2842 | (4) | | | | | | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 0.3432 | (4) | | | | | | | | | | | | | |
| Isophorone | 781 | (4) | | | | | | | | | | | | | |
| Naphthalene | 1.65 | (4) | | | | | | | | | | | | | |
| Nitrobenzene | 1.4 | (4) | | | | | | | | | | | | | |
| N-Nitrosodimethylamine | 0.0049 | (4) | | | | | | | | | | | | | |
| N-Nitrosodi-n-propylamine | 0.11 | (5) | | | | | | | | | | | | | |
| N-Nitrosodiphenylamine | 121.922 | (4) | | | | | | | | | | | | | |
| Pentachlorophenol | 0.4129 | (4) | | | | | | | | | | | | | |
| Phenanthrene | | (4) | | | | | | | | | | | | | |
| Phenol | 5761 | (4) | | | | | | | | | | | | | |
| Pyrene | 117 | (4) | | | | | | | | | | | | | |
| Pyridine | 20 | (1) | | | | | | | | | | | | | |
| General Chemistry (mg/L) | | | | | | | | | | | | | | | |
| Fluoride | 1.6 | (3) | | | | 0.11 J | <2.0 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Chloride | 250 | (3) | | | | 960 | 870 | 440 | 360 | 450 | 740 | 680 | 630 | 630 | 530 |
| Nitrite | 1 | (3) | | | | <1.0 | <1.0 | < 0.50 | < 1.0 | < 0.50 | 37 | 43 | < 2.0 | 40 | < 2.0 |
| Bromide | - | | | | | 9.5 | 8.4 | 4.7 | 3.2 | 4.4 | 4.4 | 4.3 | 5.8 | 4.4 | 4.5 |
| Nitrate | 10 | (3) | | | | <1.0 | <1.0 | < 0.50 | < 1.0 | < 0.50 | 37 | 43 | 47 | 40 | 55 |
| Phosphorus | - | | | | | <2.5 H | <10 H | < 2.5 | < 10 | < 2.5 | <10 H | <10 H | < 0.50 | < 10 | < 10 |
| Sulfate | 600 | (3) | | | | 2900 | 3100 | 2800 | 2700 | 2200 | 1800 | 1600 | 1600 | 1600 | 1400 |
| Carbon Dioxide (CO ₂) | - | | | | | 230 H | 260 | 380 | 400 | 490 | 160 H | 170 H | 170 | 170 | 180 |
| Alkalinity (CaCO ₃) | - | | | | | 250.6 | 264 | 395.6 | 408.9 | 527.8 | 178.6 | 180.7 | 188.4 | 186.9 | 201.7 |
| Bicarbonate (CaCO ₃) | - | | | | | 250.6 | 264 | 395.6 | 408.9 | 527.8 | 178.6 | 180.7 | 188.4 | 186.9 | 201.7 |

| | Screening | Source | | **MW-26 | | | | MW-27 | | | | | MW-32 | | |
|--------------------------------|-----------|--------|--------|---------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | Levels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Total Metals (mg/L) | | | | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | | | | <0.020 | <0.020 | < 0.20 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.20 | < 0.020 | < 0.020 |
| Barium | 2.0 | (3) | | | | 0.059 | 0.066 | 0.073 | 0.17 | 0.068 | 0.024 | <0.020 | 0.019 | 0.033 | < 0.020 |
| Cadmium | 0.005 | (3) | | | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Chromium | 0.05 | (3) | | | | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Lead | 0.015 | (3) | | | | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 |
| Selenium | 0.05 | (3) | | | | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Silver | 0.05 | (3) | | | | 0.0086 | 0.022 | < 0.0050 | < 0.0050 | < 0.0050 | 0.0045 J | 0.011 | < 0.0050 | < 0.0050 | < 0.0050 |
| Mercury | 0.002 | (3) | | | | 0.000055J | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | 0.000054J | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 |
| Dissolved Metals (mg/L) | | | | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | | | | <0.020 | <0.020 | 0.023 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | 0.012 J | < 0.020 | < 0.020 |
| Barium | 1.0 | (3) | | | | 0.045 | 0.050 | 0.034 | 0.044 | 0.054 | 0.018 J | < 0.020 | 0.018 J | < 0.020 | < 0.020 |
| Cadmium | 0.005 | (3) | | | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Calcium | - | | | | | 670 | 740 | 690 | 550 | 590 | 320 | 320 | 340 | 340 | 310 |
| Chromium | 0.05 | (3) | | | | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Copper | 1 | (3) | | | | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Iron | 1 | (3) | | | | 1.1 | 0.89 | 1.3 | 0.74 | 0.13 | <0.020 | <0.020 | 0.0052 J | < 0.020 | < 0.020 |
| Lead | 0.015 | (3) | | | | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 |
| Magnesium | - | | | | | 110 | 110 | 99 | 92 | 93 | 50 | 47 | 48 | 50 | 45 |
| Manganese | 0.2 | (3) | | | | 1.8 | 0.75 | 2.1 | 2.7 | 6 | <0.0020 | <0.0020 | 0.00085 J | < 0.0020 | < 0.0020 |
| Potassium | - | | | | | 6.0 | 3.7 | 4.0 | 5.3 | 5.8 | 3.7 | 3.4 | 3.6 | 4 | 3.9 |
| Selenium | 0.05 | (3) | | | | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Silver | 0.05 | (3) | | | | 0.0086 | 0.018 | < 0.0050 | < 0.0050 | < 0.0050 | 0.0049 J | 0.0082 | 0.0039 J | < 0.0050 | < 0.0050 |
| Sodium | - | | | | | 870 | 890 | 800 | 720 | 730 | 800 | 770 | 800 | 810 | 750 |
| Uranium | 0.03 | (3) | | | | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 10 | < 10 | < 0.10 | < 0.10 | < 0.10 |
| Zinc | 10 | (3) | | | | 0.015 J | <0.020 | 0.014 J | < 0.020 | < 0.020 | 0.020 | < 0.020 | 0.025 | < 0.020 | 0.023 |
| Total Petroleum Hydrocarbons (| mg/L) | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (6) | | | | 0.23 J | 3.2 | 3.2 | 2.2 | 3.9 | < 0.40 | < 0.40 | < 0.20 | < 0.20 | 0.28 |
| Gasoline Range Organics | 0.0101 | (6) | | | | < 0.050 | < 0.050 | < 0.050 | 0.2 | 0.25 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | 0.19 |
| Motor Oil Range Organics | 0.0858 | (6) | | | | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 |

- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (Decembe
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remediation (February 2019)
- (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds

| (6) NMED 3 | SSG (June 2019) |
|------------|---|
| - | = No screening level available |
| * | = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time |
| | = Analysis not required and/or well contains separate phase |
| | = Analytical result exceeds the respective screening level. |
| 1 | = 6/27/13 modification on FWGWM Plan to remove MW-8 and replace with MW-52. |
| ** | = Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate ph |

TABLE 4
Cross-Gradient Wells Analytical Summary
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| | Screening | | | | | | MW | -33 | | | | |
|-------------------------------|-----------|--------|--------|----------|--------|--------|--------|----------|--------|----------|--------|----------|
| | Levels | Source | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| olatile Organic Compounds (uç |]/L) | | | <u> </u> | | | | <u> </u> | | <u> </u> | | <u> </u> |
| 1,1,1,2-Tetrachloroethane | 5.74 | (4) | | | | | < 1.0 | | < 1.0 | | | |
| 1,1,1-Trichloroethane | 5 | (3) | | | | | < 1.0 | | < 1.0 | | | |
| 1,1,2,2-Tetrachloroethane | 10 | (3) | | | | | < 2.0 | | < 2.0 | | | |
| 1,1,2-Trichloroethane | 5 | (3) | | | | | < 1.0 | | < 1.0 | | | |
| 1,1-Dichloroethane | 25 | (3) | | | | | < 1.0 | | < 1.0 | | | |
| 1,1-Dichloroethene | 7 | (3) | | | | | < 1.0 | | < 1.0 | | | |
| 1,1-Dichloropropene | - | | | | | | < 1.0 | | < 1.0 | | | |
| 1,2,3-Trichlorobenzene | 7 | (1) | | | | | < 1.0 | | < 1.0 | | | |
| 1,2,3-Trichloropropane | 0.01 | (4) | | | | | < 2.0 | | < 2.0 | | | |
| 1,2,4-Trichlorobenzene | 11.55 | (4) | | | | | < 1.0 | | < 1.0 | | | |
| 1,2,4-Trimethylbenzene | 56 | (1) | | | | | < 1.0 | | < 1.0 | | | |
| 1,2-Dibromo-3-chloropropane | 0.2 | (2) | | | | | < 2.0 | | < 2.0 | | | |
| 1,2-Dibromoethane (EDB) | 0.05 | (3) | | | | | < 1.0 | | < 1.0 | | | |
| 1,2-Dichlorobenzene | 302 | (4) | | | | | < 1.0 | | < 1.0 | | | |
| 1,2-Dichloroethane (EDC) | 1.71 | (4) | | | | | < 1.0 | | < 1.0 | | | |
| 1,2-Dichloropropane | 4.376 | (4) | | | | | < 1.0 | | < 1.0 | | | |
| 1,3,5-Trimethylbenzene | 60 | (1) | | | | | < 1.0 | | < 1.0 | | | |
| 1,3-Dichlorobenzene | - | (.) | | | | | < 1.0 | | < 1.0 | | | |
| 1,3-Dichloropropane | 370 | (1) | | | | | < 1.0 | | < 1.0 | | | |
| 1,4-Dichlorobenzene | 75 | (2) | | | | | < 1.0 | | < 1.0 | | | |
| 1-Methylnaphthalene | 11 | (5) | | | | | < 4.0 | | < 4.0 | | | |
| 2,2-Dichloropropane | 11 | (3) | | | | | < 2.0 | | < 2.0 | | | |
| 2-Butanone | 5565 | (4) | | | | | < 10 | | < 10 | | | |
| 2-Chlorotoluene | 240 | (4) | | | | | < 1.0 | | < 1.0 | | | |
| | | (1) | | | | | | | | | | |
| 2-Hexanone | - | (4) | | | | | < 10 | | < 10 | | | |
| 2-Methylnaphthalene | 36 | (1) | | | | | < 4.0 | | < 4.0 | | | |
| 4-Chlorotoluene | 250 | (1) | | | | | < 1.0 | | < 1.0 | | | |
| 4-Isopropyltoluene | - | | | | | | < 1.0 | | < 1.0 | | | |
| 4-Methyl-2-pentanone | - | (4) | | | | | < 10 | | < 10 | | | |
| Acetone | 14064 | (4) | | | | | < 10 | | < 10 | | | |
| Benzene | 5 | (3) | | | | | < 1.0 | <1.0 | < 1.0 | <1.0 | | <1.0 |
| Bromobenzene | 62 | (1) | | | | | < 1.0 | | < 1.0 | | | |
| Bromodichloromethane | 1.34 | (4) | | | | | < 1.0 | | < 1.0 | | | |
| Bromoform | 33 | (5) | | | | | < 1.0 | | < 1.0 | | | |
| Bromomethane | 7.545 | (4) | | | | | < 3.0 | | < 3.0 | | | |
| Carbon disulfide | 810 | (4) | | | | | < 10 | | < 10 | | | |
| Carbon Tetrachloride | 5 | (2) | | | | | < 1.0 | | < 1.0 | | | |
| Chlorobenzene | 100 | (2) | | | | | < 1.0 | | < 1.0 | | | |
| Chloroethane | 20900 | (4) | | | | | < 2.0 | | < 2.0 | | | |
| Chloroform | 2.29 | (4) | | | | | < 1.0 | | < 1.0 | | | |
| Chloromethane | 20.3 | (4) | | | | | < 3.0 | | < 3.0 | | | |
| cis-1,2-DCE | 70 | (2) | | | | | < 1.0 | | < 1.0 | | | |
| cis-1,3-Dichloropropene | 4.7 | (4) | | | | | < 1.0 | | < 1.0 | | | |
| Dibromochloromethane | 1.68 | (4) | | | | | < 1.0 | | < 1.0 | | | |
| Dibromomethane | 8.3 | (1) | | | | | < 1.0 | | < 1.0 | | | |
| Dichlorodifluoromethane | 197 | (4) | | | | | < 1.0 | | < 1.0 | | | |
| Ethylbenzene | 700 | (3) | | | | | < 1.0 | <1.0 | < 1.0 | <1.0 | | <1.0 |
| Hexachlorobutadiene | 1.39 | (4) | | | | | < 1.0 | | < 1.0 | | | |
| Isopropylbenzene | 447 | (4) | | | | | < 1.0 | | < 1.0 | | | |

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| | Screening | C | | | | | MW- | -33 | | | | |
|--|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Levels | Source | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Methyl tert-butyl ether (MTBE) | 100 | (3) | | | | | < 1.0 | <1.0 | < 1.0 | <1.0 | | <1.0 |
| Methylene Chloride | 5 | (2) | | | | | < 3.0 | | < 3.0 | | | |
| Naphthalene | 1.65 | (4) | | | | | < 2.0 | | < 2.0 | | | |
| n-Butylbenzene | 1000 | (1) | | | | | < 3.0 | | < 3.0 | | | |
| n-Propylbenzene | 660 | (1) | | | | | < 1.0 | | < 1.0 | | | |
| sec-Butylbenzene | 2000 | (1) | | | | | < 1.0 | | < 1.0 | | | |
| Styrene | 100 | (2) | | | | | < 1.0 | | < 1.0 | | | |
| tert-Butylbenzene | 690 | (1) | | | | | < 1.0 | | < 1.0 | | | |
| Tetrachloroethene (PCE) | 5 | (2) | | | | | < 1.0 | | < 1.0 | | | |
| Toluene | 1000 | (3) | | | | | < 1.0 | <1.0 | < 1.0 | <1.0 | | <1.0 |
| trans-1,2-DCE | 100 | (2) | | | | | < 1.0 | | < 1.0 | | | |
| trans-1,3-Dichloropropene | 4.71 | (4) | | | | | < 1.0 | | < 1.0 | | | |
| Trichloroethene (TCE) | 5 | (2) | | | | | < 1.0 | | < 1.0 | | | |
| Trichlorofluoromethane | 1136 | (4) | | | | | < 1.0 | | < 1.0 | | | |
| Vinyl chloride | 2 | (3) | | | | | < 1.0 | | < 1.0 | | | |
| Xylenes, Total | 620 | (3) | | | | | < 1.5 | <1.5 | < 1.5 | <1.5 | | <1.5 |
| Semi-Volatile Organic Compoun | | (-) | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 70 | (2) | | | | | | | | | | |
| 1,2-Dichlorobenzene | 600 | (2) | | | | | | | | | | |
| 1,3-Dichlorobenzene | - | (-/ | | | | | | | | | | |
| 1,4-Dichlorobenzene | 75 | (2) | | | | | | | | | | |
| 1-Methylnaphthalene | 11 | (5) | | | | | | | | | | |
| 2,4,5-Trichlorophenol | 1166 | (4) | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 11.9 | (4) | | | | | | | | | | |
| 2,4-Dichlorophenol | 45.3 | (4) | | | | | | | | | | |
| 2,4-Dimethylphenol | 354 | (4) | | | | | | | | | | |
| 2,4-Dinitrophenol | 38.7 | (4) | | | | | | | | | | |
| 2,4-Dinitrotoluene | 2.375 | (4) | | | | | | | | | | |
| 2,6-Dinitrotoluene | 0.485 | (4) | | | | | | | | | | |
| 2-Chloronaphthalene | 733 | (4) | | | | | | | | | | |
| 2-Chlorophenol | 91 | (4) | | | | | | | | | | |
| 2-Methylnaphthalene | 36 | (1) | | | | | | | | | | |
| 2-Methylphenol | 930 | (1) | | | | | | | | | | |
| 2-Nitroaniline | 190 | (1) | | | | | | | | | | |
| 2-Nitrophenol | 190 | (1) | | | | | | | | | | |
| 3,3´-Dichlorobenzidine | 1.25 | (4) | | | | | | | | | | - |
| 3+4-Methylphenol | 930 | (4) | | | | | | | | | | |
| 3-Nitroaniline | 930 | (1) | | | | | | | | | | |
| | 1.52 | (4) | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | | (4) | | | | | | | | | | |
| 4-Bromophenyl phenyl ether | - | | | | | | | | | | | |
| 4-Chloro-3-methylphenol 4-Chloroaniline | - 2.7 | (F) | | | | | | | | | | |
| | 3.7 | (5) | | | | | | | | | | |
| 4-Chlorophenyl phenyl ether | - | (5) | | | | | | | | | | |
| 4-Nitroaniline | 38 | (5) | | | | | | | | | | |
| 4-Nitrophenol | - | (4) | | | | | | | | | | |
| Acenaphthene | 535 | (4) | | | | | | | | | | |
| Acenaphthylene | - | (=) | | | | | | | | | | |
| Aniline | 130 | (5) | | | | | | | | | | |
| Anthracene | 1721 | (4) | | | | | | | | | | |
| Azobenzene | 1.2 | (5) | | | | | | | | | | |

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| | Screening | | | | | | MW- | -33 | | | | |
|-----------------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Levels | Source | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Benzo(a)anthracene | 0.1199 | (4) | | | | | | | | | | |
| Benzo(a)pyrene | 0.2 | (2) | | | | | | | | | | |
| Benzo(b)fluoranthene | 0.3432 | (4) | | | | | | | | | | |
| Benzo(g,h,i)perylene | - | | | | | | | | | | | |
| Benzo(k)fluoranthene | 3.43 | (4) | | | | | | | | | | |
| Benzoic acid | 75000 | (1) | | | | | | | | | | |
| Benzyl alcohol | 2000 | (1) | | | | | | | | | | |
| Bis(2-chloroethoxy)methane | 59 | (1) | | | | | | | | | | |
| Bis(2-chloroethyl)ether | 0.137 | (4) | | | | | | | | | | |
| Bis(2-chloroisopropyl)ether | 9.81 | (4) | | | | | | | | | | |
| Bis(2-ethylhexyl)phthalate | 6 | (2) | | | | | | | | | | |
| Butyl benzyl phthalate | 160 | (5) | | | | | | | | | | |
| Carbazole | - | (0) | | | | | | | | | | |
| Chrysene | 34.3171 | (4) | | | | | | | | | | |
| Dibenz(a,h)anthracene | 0.0343 | (4) | | | | | | | | | | |
| Dibenzofuran | - | (+) | | | | | | | | | | |
| Diethyl phthalate | 14800 | (4) | | | | | | | | | | |
| Dimethyl phthalate | 14000 | (+) | | | | | | | | | | |
| Di-n-butyl phthalate | 885 | (4) | | | | | | | | | | |
| Di-n-octyl phthalate | 000 | (4) | | | | | | | | | | |
| Fluoranthene | 802 | (4) | | | | | | | | | | |
| | | (4) | | | | | | | | | | |
| Fluorene | 288 | (4) | | | | | | | | | | |
| Hexachlorobenzene | 0.0976 | (4) | | | | | | | | | | |
| Hexachlorobutadiene | 1.387 | (4) | | | | | | | | | | |
| Hexachlorocyclopentadiene | 0.411 | (4) | | | | | | | | | | |
| Hexachloroethane | 3.2842 | (4) | | | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 0.3432 | (4) | | | | | | | | | | |
| Isophorone | 781 | (4) | | | | | | | | | | |
| Naphthalene | 1.65 | (4) | | | | | | | | | | |
| Nitrobenzene | 1.4 | (4) | | | | | | | | | | |
| N-Nitrosodimethylamine | 0.0049 | (4) | | | | | | | | | | |
| N-Nitrosodi-n-propylamine | 0.11 | (5) | | | | | | | | | | |
| N-Nitrosodiphenylamine | 121.922 | (4) | | | | | | | | | | |
| Pentachlorophenol | 0.4129 | (4) | | | | | | | | | | |
| Phenanthrene | 170.4146 | (4) | | | | | | | | | | |
| Phenol | 5761 | (4) | | | | | | | | | | |
| Pyrene | 117 | (4) | | | | | | | | | | |
| Pyridine | 20 | (1) | | | | | | | | | | |
| General Chemistry (mg/L) | | | | | | | | | | | | |
| Fluoride | 1.6 | (3) | | | | | LW | | 0.51 | | | |
| Chloride | 250 | (3) | | | | | LW | | 250 | | | |
| Nitrite | 1 | (3) | | | | | LW | | 40 | | | |
| Bromide | - | | | | | | LW | | 1.4 | | | |
| Nitrate | 10 | (3) | | | | | LW | | 40 | | | |
| Phosphorus | - | | | | | | LW | | < 10 | | | |
| Sulfate | 600 | (3) | | | | | LW | | 2500 | | | |
| Carbon Dioxide (CO ₂) | - | | | | | | LW | | 110 | | | |
| Alkalinity (CaCO ₃) | - | | | | | | LW | | 125.5 | | | |
| Bicarbonate (CaCO ₃) | - | | | | | | LW | | 125.5 | | | |

| | Screening | Source | | | | | MW- | -33 | | | | |
|--------------------------------|-----------|--------|--------|--------|--------|--------|---------|---------|-----------|---------|--------|---------|
| | Levels | Source | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Total Metals (mg/L) | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | | | | | LW | | < 0.020 | | | |
| Barium | 2.0 | (3) | | | | | LW | | 0.021 | | | |
| Cadmium | 0.005 | (3) | | | | | LW | | < 0.0020 | | | |
| Chromium | 0.05 | (3) | | | | | LW | | < 0.0060 | | | |
| Lead | 0.015 | (3) | | | | | LW | | < 0.0050 | | | |
| Selenium | 0.05 | (3) | | | | | LW | | 0.063 | | | |
| Silver | 0.05 | (3) | | | | | LW | | < 0.0050 | | | |
| Mercury | 0.002 | (3) | | | | | LW | | < 0.00020 | | | |
| Dissolved Metals (mg/L) | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | | | | | LW | | < 0.020 | | | |
| Barium | 1.0 | (3) | | | | | LW | | < 0.020 | | | |
| Cadmium | 0.005 | (3) | | | | | LW | | < 0.0020 | | | |
| Calcium | - | | | | | | LW | | 480 | | | |
| Chromium | 0.05 | (3) | | | | | LW | | < 0.0060 | | | |
| Copper | 1 | (3) | | | | | LW | | < 0.0060 | | | |
| Iron | 1 | (3) | | | | | LW | | < 0.020 | | | |
| Lead | 0.015 | (3) | | | | | LW | | < 0.0050 | | | |
| Magnesium | - | | | | | | LW | | 69 | | | |
| Manganese | 0.2 | (3) | | | | | LW | | < 0.0020 | | | |
| Potassium | - | | | | | | LW | | 5.5 | | | |
| Selenium | 0.05 | (3) | | | | | LW | | 0.097 | | | |
| Silver | 0.05 | (3) | | | | | LW | | < 0.0050 | | | |
| Sodium | - | | | | | | LW | | 820 | | | |
| Uranium | 0.03 | (3) | | | | | LW | | < 0.10 | | | |
| Zinc | 10 | (3) | | | | | LW | | < 0.020 | | | |
| Total Petroleum Hydrocarbons (| mg/L) | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (6) | | | | | < 0.20 | < 0.20 | < 0.20 | <0.20 | | <0.20 |
| Gasoline Range Organics | 0.0101 | (6) | | | | | < 0.050 | < 0.050 | < 0.050 | < 0.050 | | < 0.050 |
| Motor Oil Range Organics | 0.0858 | (6) | | | | | < 2.5 | < 2.5 | < 2.5 | < 2.5 | | < 2.5 |

Notes:

- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 1
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remedia

= Columns hidden when there are 4 or more consecutive years recorded that analysis was ne

- (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds
- (6) NMED SSG (June 2019)
- No screening level available

 * Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time

 --- = Analysis not required and/or well contains separate phase

 = Analytical result exceeds the respective screening level.

 1 = 6/27/13 modification on FWGWM Plan to remove MW-8 and replace with MW-52.

TABLE 5
Downgradient Wells Analytical Summary
2019 Groundwater Remediation and Monitoring Annual Report

| Scre | eening | Source | | | MW-11 | | | | | | | MW- | -12 | | | | | | | MW-34 | | |
|-----------------------------------|--------|--------|--------------|-------------------|-------------------|------------------|------------|--------------|-----------|---------------|--------|--------------|--------|--------------|--------|--------------|--------|---------------|---------------|--------------|--------------|---------------|
| Le | evels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Volatile Organic Compounds (ug/L) | | • | • | Ť | Ť | | Ĭ | | | Ĭ | | Ť | | | | | | Ĭ | | | | |
| 1,1,1,2-Tetrachloroethane 5 | 5.74 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,1,1-Trichloroethane | 5 | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,1,2,2-Tetrachloroethane | 10 | (3) | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| 1,1,2-Trichloroethane | 5 | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,1-Dichloroethane | 25 | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,1-Dichloroethene | 7 | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,1-Dichloropropene | - | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,2,3-Trichlorobenzene | 7 | (1) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | 0.01 | (4) | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| 1,2,4-Trichlorobenzene 11 | 1.55 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | 56 | (1) | 110 | 67 | 97 | 120 | 390 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | 0.2 | (2) | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| , , , | 0.05 | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | 302 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| . , , , | 1.71 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | .376 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| , , | 60 | (1) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 1,6 21611616261126116 | - | 4.13 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | 370 | (1) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| · | 75 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 7 1 | 11 | (5) | 18 | 15 | 15 | 17 | 16 | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | < 4.0 | < 4.0 | < 4.0 | < 4.0 |
| 2,2-Dichloropropane | - | (1) | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| | 565 | (4) | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | < 10 | < 10 | < 10 | < 10 |
| | 240 | (1) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 2-Hexanone | - | (4) | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | < 10 | < 10 | < 10 | < 10 |
| 7 . | 36 | (1) | 28 | 25 | 17 | 23 | 18 | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | 0.28 J | < 4.0 | < 4.0 | < 4.0 |
| | 250 | (1) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 4-Isopropyltoluene | - | | 3.0 | 1.9 | 1.6 | 3.5 | 5 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| 4-Methyl-2-pentanone | 4064 | (4) | < 10 < 10 | < 10 < 10 | < 10 < 10 | < 10 | < 10 | < 10 < 10 | | < 10 | | < 10 < 10 | | < 10 < 10 | | < 10 < 10 | | < 10 | < 10 8.0 J | < 10 < 10 | < 10 < 10 | < 10 |
| | 5 | (4) | < 10 8 | < 10 66 | < 10 29 | 19 9.9 | < 10 14 | < 1.0 | < 1.0 | < 10 < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 10 < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 10 < 1.0 |
| | 62 | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | 1.34 | (1) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | 33 | (5) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | .545 | (4) | < 3.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 |
| | 810 | (4) | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | < 10 | < 10 | < 10 | < 10 |
| | 5 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | 100 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | 0900 | (4) | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| | 2.29 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | 20.3 | (4) | < 3.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 |
| | 70 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| · | 4.7 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | 1.68 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | 8.3 | (1) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | 197 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | 700 | (3) | <1.0 | 0.68 J | 0.5 J | < 1.0 | 1 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| · | 1.39 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| | 447 | (4) | 81 | 63 | 58 | 59 | 62 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | 3.8 | 3.8 | 2.6 | 4.6 |

TABLE 5
Downgradient Wells Analytical Summary
2019 Groundwater Remediation and Monitoring Annual Report

| | Screening | _ | | | MW-11 | | | | | | | MW- | .12 | | | | | | | MW-34 | | |
|---|-------------|--------|--------------|------------|--------|--------------|----------|--------------|--------|--------------|--------|--------|--------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Levels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Methyl tert-butyl ether (MTBE) | 100 | (3) | < 1.0 | 1.3 | 2.4 | 2.5 | 2 Aug-13 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.57 J | 0.48 J | < 1.0 | < 1.0 |
| Methylene Chloride | 5 | (2) | < 3.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | < 3.0 | < 3.0 | < 3.0 | < 3.0 |
| Naphthalene | 1.65 | (4) | 99 | 98 | 80 | 70 | 71 | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| n-Butylbenzene | 1000 | (1) | 3.3 | 2.1 J | 1.9 J | < 3.0 | < 3.0 | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | < 3.0 | 0.24 J | < 3.0 | < 3.0 |
| n-Propylbenzene | 660 | (1) | 86 | 70 | 63 | 64 | 54 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | <1.0 | <1.0 | 2.4 | 1.5 | 2.8 |
| sec-Butylbenzene | 2000 | (1) | 13 | 9.1 | 7.8 | 12 | 12 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | 0.40 J | 1.9 | 2.6 | 4.5 |
| Styrene | 100 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| tert-Butylbenzene | 690 | (1) | 2.5 | 2 | 1.9 | 2.4 | 2.5 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | 1.4 | 1.7 | 1.6 | 1.7 | 1.7 |
| Tetrachloroethene (PCE) | 5 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Toluene | 1000 | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| trans-1,2-DCE | 1000 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| trans-1,3-Dichloropropene | 4.71 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Trichloroethene (TCE) | 5 | (2) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Trichlorofluoromethane | 1136 | (4) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Vinyl chloride | 2 | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Xylenes, Total | 620 | (3) | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | <1.5 | < 1.5 | <1.5 | < 1.5 | <1.5 | < 1.5 | <1.5 | < 1.5 | <1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 |
| Semi-Volatile Organic Compounds (| | (3) | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | <1.5 | < 1.5 | <1.5 | < 1.5 | <1.5 | < 1.5 | <1.5 | ₹ 1.5 | <1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 |
| 1,2,4-Trichlorobenzene | 70 | (2) | < 10 | <50 | | < 10 | | < 10 | I | < 10 | | | | < 10 | | | | | | | | |
| 1,2-Dichlorobenzene | 600 | (2) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 1,3-Dichlorobenzene | | (2) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | _ | | | | | | | |
| 1,4-Dichlorobenzene | 75 | (2) | < 10 | <50 <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| · | 75 | (2) | 34 | <50 <50 | | 25 | | < 10 | | | | | | < 10 | | | | | | | | |
| 1-Methylnaphthalene | 11 | (5) | | | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 2,4,5-Trichlorophenol | 1166 | (4) | < 10 | <50 <50 | | - | | | | < 10 | | | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 11.9 | (4) | < 10 < 20 | <100 | | < 10 < 20 | | < 10 < 20 | | < 10 | | | | < 10 < 20 | | | | | | | | |
| 2,4-Dichlorophenol | 45.3 354 | (4) | | <50 | | | | < 10 | | < 20 < 10 | | | | | | | | | | | | |
| 2,4-Dimethylphenol | | (4) | < 10 < 20 | <100 | | < 10 < 20 | | < 20 | | | | | | < 10 < 20 | | | | | | | | |
| 2,4-Dinitrophenol 2,4-Dinitrotoluene | 38.7 | (4) | < 10 | | | < 10 | | < 10 | | < 20 < 10 | | | | < 10 | | | | | | | | |
| · | 2.375 | (4) | | <50 <50 | | | | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 0.485 | (4) | < 10 | <50 <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 2-Chloronaphthalene | 733 | (4) | < 10 | <50 <50 | | < 10 | | < 10 < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 2-Chlorophenol | 91 | (4) | < 10 | | | < 10 | | | | < 10 | | | | < 10 | | | | | | | | |
| 2-Methylnaphthalene | 36 | (1) | 24 | <50 | | 11 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 2-Methylphenol | 930 | (1) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 2-Nitroaniline | 190 | (1) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 2-Nitrophenol | 4.05 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 3,3´-Dichlorobenzidine | 1.25 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 3+4-Methylphenol | 930 | (1) | < 10 | <50 | | 17 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 3-Nitroaniline | - 4.50 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 1.52 | (4) | < 20 | <100 | | < 20 | | < 20 | | < 20 | | | | < 20 | | | | | | | | |
| 4-Bromophenyl phenyl ether | - | | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 4-Chloro-3-methylphenol | - 7 | (5) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 4-Chloroaniline | 3.7 | (5) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 4-Chlorophenyl phenyl ether | - | (5) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 4-Nitroaniline | 38 | (5) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| 4-Nitrophenol | - | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Acenaphthene | 535 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Acenaphthylene | - | (E) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Aniline | 130 | (5) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Anthracene | 1721 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |

TABLE 5
Downgradient Wells Analytical Summary
2019 Groundwater Remediation and Monitoring Annual Report

| s | creening | | | | MW-11 | | | | | | | MW- | 12 | | | | | | | MW-34 | | |
|---|----------|--------|---------------------|------------------|-------------------|-------------------|--------------|-----------------|--------|---------------|--------|--------------------|----|-----------------|--------|-----------------------|--------|------------------|--------|-------------------|------------------|-------------|
| | Levels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | | | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Azobenzene | 1.2 | (5) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| | 0.1199 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Benzo(a)pyrene | 0.2 | (2) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| | 0.3432 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Benzo(g,h,i)perylene | - | (-) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Benzo(k)fluoranthene | 3.43 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| , , | 75000 | (1) | < 20 | <100 | | < 20 | | < 20 | | < 20 | | | | < 20 | | | | | | | | |
| Benzyl alcohol | 2000 | (1) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Bis(2-chloroethoxy)methane | 59 | (1) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Bis(2-chloroethyl)ether | 0.137 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Bis(2-chloroisopropyl)ether | 9.81 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Bis(2-ethylhexyl)phthalate | 6 | (2) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Butyl benzyl phthalate | 160 | (5) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Carbazole | - | (3) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| | 34.3171 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| · | 0.0343 | (4) | < 10 | <50 <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Diberiz(a,ri)antinacene | - | (4) | < 10 | <50 | | < 10 | | < 10 | _ | < 10 | | | | < 10 | | | | | | | | |
| Diethyl phthalate | 14800 | (4) | < 10 | <50 <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Dimethyl phthalate | - | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Di-n-butyl phthalate | 885 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Di-n-octyl phthalate | | (4) | < 10 | <50 <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| | 802 | (4) | | <50 <50 | | | | < 10 | | | | | | | | | | | | | | |
| Fluoranthene Fluorene | 288 | (4) | < 10 < 10 | <50 <50 | | < 10 < 10 | | < 10 | | < 10 < 10 | | | | < 10 < 10 | | | | | | | | |
| | | (4) | < 10 | <50 <50 | | | | | | < 10 | | | | < 10 | | | | | | | | |
| | 0.0976 | (4) | | <50 <50 | | < 10 | | < 10 | | < 10 | | | | - | | | | | | | | |
| Hexachlorobutadiene Hexachlorocyclopentadiene | 1.387 | (4) | < 10 < 10 | <50 <50 | | < 10 < 10 | | < 10 < 10 | | < 10 | | | | < 10 < 10 | | | | | | | | |
| 7 . | 0.411 | (4) | | | | | | | | | | | | | | | | | | | | |
| | 3.2842 | (4) | < 10 < 10 | <50 <50 | | < 10 < 10 | | < 10 | | < 10 | | | | < 10 < 10 | | | | | | | | |
| | 0.3432 | (4) | | | | | | < 10 | | < 10 | | | | | | | | | | | | |
| Isophorone | 781 | (4) | < 10 | <50 61 | | < 10 | | < 10 | | < 10 < 10 | | | | < 10 | | | | | | | | |
| Naphthalene | 1.65 | (4) | 85 | - | | 43 | | < 10 | | | | | | < 10 | | | | | | | | |
| Nitrobenzene | 1.4 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| | 0.0049 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| N-Nitrosodi-n-propylamine | 0.11 | (5) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| | 121.922 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| • • | 0.4129 | (4) | < 20 | <100 | | < 20 | | < 20 | | < 20 | | | | < 20 | | | | | | | | |
| | 170.4146 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Pyropo | 5761 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Pyrene | 117 | (4) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Pyridine Pyridine Chemistry (mg/L) | 20 | (1) | < 10 | <50 | | < 10 | | < 10 | | < 10 | | | | < 10 | | | | | | | | |
| Fluoride | 1.6 | (2) | <0.50 | 0.28 J | 0.37 J | 0.41 | 0.25 | 0.34 J | | 0.31 | | 0.22 | | 0.45 | | 0.62 | | 0.64 | 0.55 | 0.54 | 0.38 | 0.56 |
| Chloride | 250 | (3) | <0.50 240 | 0.28 J 220 | 210 | 120 | 0.35 | 5.7 | | 3.5 | | 0.33 3.4 | | 0.45 4.7 | | 0.63 | | 0.64 250 | 240 | 240 | 260 | |
| | 200 | (3) | <0.50 | <1.0 | | < 1.0 | 78 | 0.08 J | | <1.0 | | < 0.10 | | < 1.0 | | < 0.10 | | <0.50 | < 1.0 | < 0.50 | < 1.0 | 190 |
| Nitrite | ı | (3) | | 3.5 | < 0.50 | | < 0.10 | | | | | | | | | | | | 3.5 | | | < 0.10 |
| Bromide | - 10 | (2) | 3.8 <0.50 | <1.0 | 3.2 < 0.50 | 0.92 < 1.0 | 0.15 0.15 | <0.50 0.08 J | | <0.10 <1.0 | | 0.041 J 0.030 J | | < 0.10 < 1.0 | | < 0.10 0.11 | | 3.4 <0.50 | < 1.0 | 3.5 < 0.50 | 2.2 < 1.0 | 0.7 0.27 |
| Nitrate | 10 | (3) | | < 2.5 | | | | | | | | | | | | | | | | | < 2.5 | < 0.50 |
| Phosphorus | - 600 | (2) | < 2.5 | | < 2.5 | 2.8 | < 0.50 | < 0.50 H | | < 0.50 H | | < 0.50 | | < 0.50 | | < 0.50 | | < 2.5 | < 2.5 | < 2.5 | | |
| Sulfate Carbon Diovido (CO.) | 600 | (3) | 6.9 | 2.2 J | 1.3 J | 7.6 | 5.7 | 57 | | 45 | | 44 | | 48 | | 79 | | 30 | 30 | 3.6 | 340 | 23 |
| Carbon Dioxide (CO ₂) | - | | 970 H | 900 | 1100 | 1000 | 1000 | 140 | | 140 | | 140 | | 130 | | 130 | | 1100 H | 870 H | 1000 | 930 | 820 |
| Alkalinity (CaCO ₃) | - | | 1084 | 1006 | 1140 | 1082 | 1038 | 154.4 | | 155.4 | | 155.6 | | 149 | | 148.4 | | 1152 | 970 | 1088 | 979 | 876 |
| Bicarbonate (CaCO ₃) | - | | 1084 | 1006 | 1140 | 1082 | 1038 | 154.4 | | 155.4 | | 155.6 | | 149 | | 148.4 | | 1152 | 970 | 1088 | 979 | 876 |

| | Screening | Source | | | MW-11 | | | | | | | MW- | 12 | | | | | | | MW-34 | | |
|-----------------------------------|-----------|--------|-----------|------------|-----------|-----------|-----------|-----------|--------|-----------|--------|-----------|---------|-----------|---------|-----------|---------|-----------|------------|-----------|-----------|-----------|
| | Levels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Total Metals (mg/L) | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | <0.020 | <0.020 | 0.026 | 0.047 | 0.035 | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | | <0.020 | 0.015 | 0.032 | < 0.020 | < 0.020 |
| Barium | 2.0 | (3) | 0.99 | 0.75 | 0.75 | 0.96 | 0.92 | 0.071 | | 0.064 | | 0.043 | | 0.36 | | 0.13 | | 0.17 | 0.42 | 0.93 | 0.56 | 0.78 |
| Cadmium | 0.005 | (3) | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Chromium | 0.05 | (3) | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | 0.31 | | 0.14 | | 0.015 | | 0.058 | | 0.34 | | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Lead | 0.015 | (3) | 0.014 | < 0.0050 | < 0.0050 | 0.028 | 0.0075 | 0.0069 | | < 0.0050 | | < 0.0050 | | 0.019 | | 0.0064 | | 0.0087 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 |
| Selenium | 0.05 | (3) | < 0.050 | < 0.050 | < 0.0050 | < 0.050 | < 0.050 | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | < 0.050 | < 0.0050 | < 0.050 | < 0.050 |
| Silver | 0.05 | (3) | <0.0050 | 0.0040 J | < 0.050 | < 0.0050 | < 0.0050 | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | <0.0050 | 0.0035 J | < 0.050 | < 0.0050 | < 0.0050 |
| Mercury | 0.002 | (3) | < 0.00020 | 0.000087 J | < 0.00020 | < 0.00020 | < 0.00020 | 0.000079J | | < 0.00020 | | < 0.00020 | | < 0.00020 | | < 0.00020 | | < 0.00020 | 0.000092 J | < 0.00020 | < 0.00020 | < 0.00020 |
| Dissolved Metals (mg/L) | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | <0.020 | 0.021 | 0.017 J | 0.033 | < 0.020 | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | | 0.027 | < 0.020 | < 0.020 | < 0.020 | < 0.020 |
| Barium | 1.0 | (3) | 0.97 | 0.74 | 0.7 | 0.86 | 0.85 | 0.045 | | 0.038 | | 0.044 | | 0.27 | | 0.047 | | 0.14 | 0.38 | 0.91 | 0.4 | 0.73 |
| Cadmium | 0.005 | (3) | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Calcium | - | | 130 | 120 | 130 | 87 | 96 | 50 | | 42 | | 46 | | 58 | | 48 | | 140 | 120 | 120 | 150 | 93 |
| Chromium | 0.05 | (3) | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | 0.0036 | | < 0.0060 | | < 0.0060 | | 0.089 | | < 0.0060 | | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Copper | 1 | (3) | < 0.0060 | < 0.0060 | < 0.0060 | 0.015 | < 0.0060 | < 0.0060 | | < 0.0060 | | < 0.0060 | | 0.023 | | < 0.0060 | | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Iron | 1 | (3) | 6.5 | 1.9 | 4.2 | 18 | 9.6 | 0.02 | | < 0.020 | | < 0.020 | | 9.2 | | < 0.020 | | 2.5 | 3 | 3.2 | 4.5 | 2.8 |
| Lead | 0.015 | (3) | 0.0068 | < 0.0050 | < 0.0050 | 0.027 | 0.006 | 0.0054 | | < 0.0050 | | < 0.0050 | | 0.032 | | < 0.0050 | | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | 0.005 |
| Magnesium | - | (-) | 31 | 27 | 27 | 21 | 22 | 7.3 | | 6.5 | | 6.9 | | 11 | | 6.9 | | 23 | 23 | 20 | 30 | 16 |
| Manganese | 0.2 | (3) | 2.2 | 2 | 2.1 | 1.8 | 1.5 | 0.0095 | | 0.0077 | | 0.0066 | | 2.1 | | 0.03 | | 3.6 | 3.8 | 3.7 | 3.6 | 3.2 |
| Potassium | | (-) | 1.9 | 1.8 | 1.7 | 2.8 | 1.5 | 0.57 | | <1.0 | | 0.58 J | | 1.6 | | < 1.0 | | 1.3 | 1.2 | 1.1 | 2.1 | 1.3 |
| Selenium | 0.05 | (3) | <0.050 | <0.050 | 0.043 J | < 0.050 | < 0.050 | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Silver | 0.05 | (3) | <0.0050 | 0.0031 J | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | <0.0050 | 0.0027 | < 0.0050 | < 0.0050 | < 0.0050 |
| Sodium | | (-) | 490 | 440 | 440 | 410 | 390 | 29 | | 31 | | 30 | | 32 | | 31 | | 490 | 440 | 440 | 490 | 380 |
| Uranium | 0.03 | (3) | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Zinc | 10 | (3) | <0.020 | <0.020 | 0.093 | 0.063 | < 0.020 | 0.017 | | <0.020 | | 0.047 | | 0.1 | | < 0.020 | | <0.020 | 0.046 | 0.041 | < 0.020 | < 0.020 |
| Total Petroleum Hydrocarbons (mg/ | | (0) | 0.50 | 0.45 | | 4.0 | 4.5 | 0.46 | 0.46 | 0.40 | 0.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.40 | | | 0.00 | 0.50 |
| Diesel Range Organics | 0.0167 | (6) | 0.52 | 0.45 | 1.4 | 1.8 | 1.5 | < 0.40 | <0.40 | < 0.40 | <0.40 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | <0.40 | 0.4 | 1.1 | 0.89 | 0.56 |
| Gasoline Range Organics | 0.0101 | (6) | 2.4 | 1.3 | 0.98 | 1.4 | 2.4 | < 0.050 | <0.050 | < 0.050 | <0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | <2.5 | 1.2 | 1.1 | 0.87 | 1.3 |
| Motor Oil Range Organics | 0.0858 | (6) | <2.5 | <2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 |

- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018)
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remediation (February 2019)
- (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds
- (6) NMED SSG (June 2019)
- No screening level available

 * Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time

 --- = Analysis not required and/or well contains separate phase
 - = Analytical result exceeds the respective screening level.
 - = Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

TABLE 5
Downgradient Wells Analytical Summary
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| | Screening | Source | | | | | MW- | -35 | | | | | | | | | MW- | -37 | | | | |
|----------------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Levels | Source | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compounds (ug/L |) | | | | | | | | | | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 5.74 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1,1-Trichloroethane | 5 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1,2,2-Tetrachloroethane | 10 | (3) | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| 1,1,2-Trichloroethane | 5 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1-Dichloroethane | 25 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1-Dichloroethene | 7 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1-Dichloropropene | | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2,3-Trichlorobenzene | | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2,3-Trichloropropane | | (4) | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| 1,2,4-Trichlorobenzene | | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2,4-Trimethylbenzene | | (1) | < 1.0 | | < 1.0 | | 0.77 J | | 25 | | 19 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2-Dibromo-3-chloropropane | | (2) | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| 1,2-Dibromoethane (EDB | | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2-Dichlorobenzene | | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2-Dichloroethane (EDC | | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2-Dichloropropane | | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,3,5-Trimethylbenzene | | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,3-Dichlorobenzene | | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,3-Dichloropropane | | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,4-Dichlorobenzene | 75 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1-Methylnaphthalene | 11 | (5) | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | |
| 2,2-Dichloropropane | - | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| 2-Butanone | 5565 | (4) | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | |
| 2-Chlorotoluene | 240 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 2-Hexanone | - | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | |
| 2-Methylnaphthalene | 36 | (1) | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | |
| 4-Chlorotoluene | 250 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 4-Isopropyltoluene | - | | < 1.0 | | < 1.0 | | < 1.0 | | 1.1 | | 1.1 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 4-Methyl-2-pentanone | | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | |
| Acetone | 14064 | (4) | 4.7 J | | 11 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | 1.0 J | | < 10 | | < 10 | |
| Benzene | 5 | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Bromobenzene | | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Bromodichloromethane | | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Bromoform | | (5) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Bromomethane | | (4) | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | |
| Carbon disulfide | | (4) | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | |
| Carbon Tetrachloride | | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Chlorobenzene | | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Chloroethane | | (4) | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| Chloroform | | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Chloromethane | | (4) | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | |
| cis-1,2-DCE | | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| cis-1,3-Dichloropropene | | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Dibromochloromethane | | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Dibromomethane | | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Dichlorodifluoromethane | | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Ethylbenzene | | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Hexachlorobutadiene | | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Isopropylbenzene | 447 | (4) | < 1.0 | | < 1.0 | | 2.3 | | 4.7 | | 1.5 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |

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| s | creening | _ | | | | | MW- | 35 | | | | | | | | | MW- | .37 | | | | |
|-------------------------------------|----------|--------|--------|-------------|--------|-------------|--------|-------------|--------|--------|--------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Levels | Source | Aug-19 | Apr-19 | Aug-18 | Apr-18 | | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Methyl tert-butyl ether (MTBE) | 100 | (3) | 0.62 J | < 1.0 | < 1.0 | < 1.0 | 0.6 J | 0.0012 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Methylene Chloride | 5 | (2) | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | |
| Naphthalene | 1.65 | (4) | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| n-Butylbenzene | 1000 | (1) | < 3.0 | | < 3.0 | | 0.15 J | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | |
| n-Propylbenzene | 660 | (1) | < 1.0 | | < 1.0 | | 1.8 | | 4.1 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| sec-Butylbenzene | 2000 | (1) | < 1.0 | | < 1.0 | | 1.3 | | 3.6 | | 1.1 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Styrene | 100 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| tert-Butylbenzene | 690 | (1) | 1.4 | | < 1.0 | | 1.4 | | 1.9 | | < 1.0 | | < 1.0 | | < 1.0 | | 0.14 J | | < 1.0 | | < 1.0 | |
| Tetrachloroethene (PCE) | 5 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Toluene | 1000 | (3) | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| trans-1,2-DCE | 100 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| trans-1,3-Dichloropropene | 4.71 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Trichloroethene (TCE) | 5 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Trichlorofluoromethane | 1136 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Vinyl chloride | 2 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Xylenes, Total | 620 | (3) | < 1.5 | <1.5 | < 1.5 | <1.5 | < 1.5 | <1.5 | < 1.5 | <1.5 | < 1.5 | <1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 |
| Semi-Volatile Organic Compounds (up | | (0) | V 1.0 | V1.0 | V 1.0 | VI.0 | V 1.0 | VI.0 | V 1.0 | V1.0 | V 1.0 | V1.0 | V 1.0 | V 1.0 | V 1.0 | V 1.0 | V 1.0 | V 1.0 | V 1.0 | V 1.0 | V 1.0 | \ 1.0 |
| 1,2,4-Trichlorobenzene | 70 | (2) | | | | | | | | | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | 600 | (2) | | | | | | | | | | | | | | | | | | | | |
| 1,3-Dichlorobenzene | - | (=) | | | | | | | | | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | 75 | (2) | | | | | | | | | | | | | | | | | | | | |
| 1-Methylnaphthalene | 11 | (5) | | | | | | | | | | | | | | | | | | | | |
| 2,4,5-Trichlorophenol | 1166 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,4,6-Trichlorophenol | 11.9 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,4-Dichlorophenol | 45.3 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,4-Dimethylphenol | 354 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,4-Dinitrophenol | 38.7 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,4-Dinitrotoluene | 2.375 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2,6-Dinitrotoluene | 0.485 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2-Chloronaphthalene | 733 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2-Chlorophenol | 91 | (4) | | | | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | 36 | (1) | | | | | | | | | | | | | | | | | | | | |
| 2-Methylphenol | 930 | (1) | | | | | | | | | | | | | | | | | | | | |
| 2-Nitroaniline | 190 | (1) | | | | | | | | | | | | | | | | | | | | |
| 2-Nitrophenol | - | (1) | | | | | | | | | | | | | | | | | | | | |
| 3,3´-Dichlorobenzidine | 1.25 | (4) | | | | | | | | | | | | | | | | | | | | |
| 3+4-Methylphenol | 930 | (1) | | | | | | | | | | | | | | | | | | | | |
| 3-Nitroaniline | - | (*/ | | | | | | | | | | | | | | | | | | | | |
| 4,6-Dinitro-2-methylphenol | 1.52 | (4) | | | | | | | | | | | | | | | | | | | | |
| 4-Bromophenyl phenyl ether | - | \., | | | | | | | | | | | | | | | | | | | | |
| 4-Chloro-3-methylphenol | - | | | | | | | | | | | | | | | | | | | | | |
| 4-Chloroaniline | 3.7 | (5) | | | | | | | | | | | | | | | | | | | | |
| 4-Chlorophenyl phenyl ether | - | (-/ | | | | | | | | | | | | | | | | | | | | |
| 4-Nitroaniline | 38 | (5) | | | | | | | | | | | | | | | | | | | | |
| 4-Nitrophenol | - | (3) | | | | | | | | | | | | | | | | | | | | |
| Acenaphthene | 535 | (4) | | | | | | | | | | | | | | | | | | | | |
| Acenaphthylene | - | (' / | | | | | | | | | | | | | | | | | | | | |
| Aniline | 130 | (5) | | | | | | | | | | | | | | | | | | | | |
| Anthracene | 1721 | (4) | | | | | | | | | | | | | | | | | | | | |
| Antinacene | 1141 | (+) | | | | | | | | | | | | | | | | | | | | |

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| | Screening | _ | | | | | MW- | 35 | | | | | | | | | MW- | .37 | | | | |
|-----------------------------------|-----------|--------|--------|--------|--------|--------|---------|----|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|
| | Levels | Source | Aug-19 | Δnr-19 | Aug-18 | Apr-18 | Aug-17 | | Aug-16 | Apr-16 | Aug-15 | Anr-15 | Aug-19 | Apr-19 | Aug-18 | Δnr-18 | | Apr-17 | Aug-16 | Δnr-16 | Aug-15 | Apr-15 |
| Azobenzene | 1.2 | (5) | | | | | | | | | | | | | | | Aug 17 | | Aug 10 | | | |
| Benzo(a)anthracene | 0.1199 | (4) | | | | | | | | | | | | | | | | | | | | |
| Benzo(a)pyrene | 0.2 | (2) | | | | | | | | | | | | | | | | | | | | |
| Benzo(b)fluoranthene | 0.3432 | (4) | | | | | | | | | | | | | | | | | | | | |
| Benzo(g,h,i)perylene | - | (+) | | | | | | | | | | | | | | | | | | | | |
| Benzo(k)fluoranthene | 3.43 | (4) | | | | | | | | | | | | | | | | | | | | |
| Benzoic acid | 75000 | (1) | | | | | | | | | | | | | | | | | | | | |
| Benzyl alcohol | 2000 | (1) | | | | | | | | | | | | | | | | | | | | |
| Bis(2-chloroethoxy)methane | 59 | (1) | | | | | | | | | | | | | | | | | | | | |
| Bis(2-chloroethyl)ether | 0.137 | (4) | | | | | | | | | | | | | | | | | | | | |
| Bis(2-chloroisopropyl)ether | 9.81 | (4) | | | | | | | | | | | | | | | | | | | | |
| Bis(2-ethylhexyl)phthalate | 6 | (2) | | | | | | | | | | | | | | | | | | | | |
| Butyl benzyl phthalate | 160 | (5) | | | | | | | | | | | | | | | | | | | | |
| Carbazole | - | (5) | | | | | | | | | | | | | | | | | | | | |
| | 34.3171 | (4) | | | | | | | | | | | | | | | | | | | | |
| Chrysene Dibenz(a,h)anthracene | | (4) | | | | | | | | | | | | | | | | | | | | |
| | 0.0343 | (4) | | | | | | | | | | | | | | | | | | | | |
| Dibenzofuran | - 44000 | (4) | | | | | | | | | | | | | | | | | | | | |
| Diethyl phthalate | 14800 | (4) | | | | | | | | | | | | | | | | | | | | |
| Dimethyl phthalate | - | (4) | | | | | | | | | | | | | | | | | | | | |
| Di-n-butyl phthalate | 885 | (4) | | | | | | | | | | | | | | | | | | | | |
| Di-n-octyl phthalate | - | (4) | | | | | | | | | | | | | | | | | | | | |
| Fluoranthene | 802 | (4) | | | | | | | | | | | | | | | | | | | | |
| Fluorene | 288 | (4) | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobenzene | 0.0976 | (4) | | | | | | | | | | | | | | | | | | | | |
| Hexachlorobutadiene | 1.387 | (4) | | | | | | | | | | | | | | | | | | | | |
| Hexachlorocyclopentadiene | 0.411 | (4) | | | | | | | | | | | | | | | | | | | | |
| Hexachloroethane | 3.2842 | (4) | | | | | | | | | | | | | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 0.3432 | (4) | | | | | | | | | | | | | | | | | | | | |
| Isophorone | 781 | (4) | | | | | | | | | | | | | | | | | | | | |
| Naphthalene | 1.65 | (4) | | | | | | | | | | | | | | | | | | | | |
| Nitrobenzene | 1.4 | (4) | | | | | | | | | | | | | | | | | | | | |
| N-Nitrosodimethylamine | 0.0049 | (4) | | | | | | | | | | | | | | | | | | | | |
| N-Nitrosodi-n-propylamine | 0.11 | (5) | | | | | | | | | | | | | | | | | | | | |
| N-Nitrosodiphenylamine | 121.922 | (4) | | | | | | | | | | | | | | | | | | | | |
| Pentachlorophenol | 0.4129 | (4) | | | | | | | | | | | | | | | | | | | | |
| Phenanthrene | | (4) | | | | | | | | | | | | | | | | | | | | |
| Phenol | 5761 | (4) | | | | | | | | | | | | | | | | | | | | |
| Pyrene | 117 | (4) | | | | | | | | | | | | | | | | | | | | |
| Pyridine | 20 | (1) | | | | | | | | | | | | | | | | | | | | |
| General Chemistry (mg/L) | | | | | | | | | | | | | | | | | | | | | | |
| Fluoride | 1.6 | (3) | 0.61 | | <0.50 | | 0.46 | | 0.47 | | 0.55 | | 0.51 | | 0.44 | | 0.45 | | 0.6 | | 0.59 | |
| Chloride | 250 | (3) | 210 | | 210 | | 220 | | 240 | | 180 | | 220 | | 180 | | 150 | | 220 | | 220 | |
| Nitrite | 1 | (3) | <1.0 | | <1.0 | | < 0.10 | | < 1.0 | | < 0.10 | | 0.18 J | | <1.0 | | 0.25 J | | < 1.0 | | < 0.10 | |
| Bromide | - | | 2.9 | | 2.8 | | 0.71 | | 2.2 | | 0.74 | | 3.0 | | 2.6 | | 2.5 | | 2.9 | | 1.2 | |
| Nitrate | 10 | (3) | <1.0 | | <1.0 | | 0.022 J | | < 1.0 | | 0.25 | | 0.18 J | | <1.0 | | 0.25 J | | < 1.0 | | < 0.10 | |
| Phosphorus | - | | <2.5 H | | <2.5 H | | < 0.50 | | < 0.50 | | < 0.50 | | <2.5 H | | <0.50 H | | < 2.5 | | < 0.50 | | < 0.50 | |
| Sulfate | 600 | (3) | 91 | | 16 | | 1.5 | | 14 | | 11 | | 1200 | | 420 | | 720 | | 270 | | 110 | |
| Carbon Dioxide (CO ₂) | - | | 920 H | | 940 H | | 830 | | 850 | | 790 | | 520 H | | 640 H | | 450 | | 690 | | 770 | |
| Alkalinity (CaCO ₃) | - | | 1005 | | 1004 | | 905.4 | | 905 | | 845 | | 572.6 | | 703 | | 503.5 | | 766.7 | | 855.5 | |
| Bicarbonate (CaCO ₃) | - | | 1005 | | 1004 | | 905.4 | | 905 | | 845 | | 572.6 | | 703 | | 503.5 | | 766.7 | | 855.5 | |
| bicarbonate (CaCO ₃) | - | | 1000 | | 1004 | | 303.4 | | 300 | | 040 | | 312.0 | | 103 | | 303.3 | | 700.7 | | 655.5 | |

| | | | | | | | | | | | | | - | | | | | | | | | |
|------------------------------------|-----------|--------|-----------|--------|----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|---------|-----------|---------|-----------|---------|
| , | Screening | Source | | | | | MW-3 | 35 | | | | | | | | | MW- | 37 | | | | |
| | Levels | 304.00 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Total Metals (mg/L) | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | 0.016 J | | <0.020 | | 0.076 | | 0.047 | | 0.11 | | <0.020 | | <0.020 | | 0.019 J | | < 0.020 | | < 0.020 | |
| Barium | 2.0 | (3) | 1.2 | | 0.94 | | 0.92 | | 1.3 | | 1.6 | | 0.17 | | 0.10 | | 0.49 | | 0.27 | | 0.42 | |
| Cadmium | 0.005 | (3) | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | |
| Chromium | 0.05 | (3) | 0.0038 J | | <0.0060 | | 0.016 | | < 0.0060 | | < 0.0060 | | 0.0040 J | | <0.0060 | | 0.022 | | < 0.0060 | | < 0.0060 | |
| Lead | 0.015 | (3) | 0.0042 J | | <0.0050 | | 0.005 J | | 0.0098 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | 0.0068 | | < 0.0050 | |
| Selenium | 0.05 | (3) | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | |
| Silver | 0.05 | (3) | 0.00077 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | 0.0024 J | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | |
| Mercury | 0.002 | (3) | 0.00012 J | | <0.00020 | | 0.000044 J | | < 0.00020 | | < 0.00020 | | 0.00007 J | | < 0.00020 | | < 0.00020 | | < 0.00020 | | < 0.00020 | |
| Dissolved Metals (mg/L) | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | 0.037 | | < 0.020 | | 0.036 | | 0.038 | | 0.038 | | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | |
| Barium | 1.0 | (3) | 1.1 | | 0.79 | | 0.57 | | 0.82 | | 1.6 | | 0.053 | | 0.079 | | 0.11 | | 0.22 | | 0.4 | |
| Cadmium | 0.005 | (3) | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | |
| Calcium | - | | 140 | | 120 | | 120 | | 120 | | 110 | | 220 | | 120 | | 110 | | 86 | | 92 | |
| Chromium | 0.05 | (3) | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | |
| Copper | 1 | (3) | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | 0.0024 J | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | |
| Iron | 1 | (3) | 1.9 | | 0.13 | | 1.7 | | 3.4 | | 0.1 | | 0.63 | | 0.20 | | 0.13 | | 1.6 | | < 0.020 | |
| Lead | 0.015 | (3) | 0.0061 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | |
| Magnesium | - | | 24 | | 22 | | 21 | | 21 | | 21 | | 41 | | 21 | | 21 | | 19 | | 21 | |
| Manganese | 0.2 | (3) | 2.4 | | 1.9 | | 1.8 | | 2.5 | | 2.4 | | 2.0 | | 1.1 | | 0.89 | | 0.96 | | 1 | |
| Potassium | - | | 3.0 | | 2.9 | | 2.9 | | 2.8 | | 2.5 | | 3.6 | | 2.7 | | 2.7 | | 2.9 | | 2.8 | |
| Selenium | 0.05 | (3) | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | |
| Silver | 0.05 | (3) | 0.0017 J | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | 0.0030 J | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | |
| Sodium | - | | 400 | | 380 | | 370 | | 380 | | 340 | | 530 | | 430 | | 460 | | 460 | | 420 | |
| Uranium | 0.03 | (3) | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | |
| Zinc | 10 | (3) | 0.021 | | <0.020 | | 0.037 | | < 0.020 | | 0.023 | | 0.015 J | | <0.020 | | 0.018 J | | < 0.020 | | < 0.020 | |
| Total Petroleum Hydrocarbons (mg/L | _) | | | | | | | | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (6) | 0.26 J | | <0.40 | | 0.5 | 0.44 | 0.62 | 0.55 | 0.38 | 0.55 | <0.40 | <0.40 | < 0.40 | <0.40 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | 0.45 |
| Gasoline Range Organics | 0.0101 | (6) | 0.35 | | 0.30 | | 0.34 | 0.81 | 0.52 | 0.25 | 0.54 | 0.25 | < 0.050 | <0.050 | < 0.050 | <0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Motor Oil Range Organics | 0.0858 | (6) | < 2.5 | | < 2.5 | | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | <2.5 | < 2.5 | <2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 |

- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018)
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remediation (February 2019)
- (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds
- (6) NMED SSG (June 2019)
- = No screening level available

 * = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time

 --- = Analysis not required and/or well contains separate phase

 = Analytical result exceeds the respective screening level.

 ** = Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

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Downgradient Wells Analytical Summary
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| | Screening | Source | | | | | MW-38 | | | | | |
|-----------------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Levels | Source | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compounds (ug/L) | | | Ŭ | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 5.74 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1,1-Trichloroethane | 5 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1,2,2-Tetrachloroethane | 10 | (3) | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| 1,1,2-Trichloroethane | 5 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1-Dichloroethane | 25 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1-Dichloroethene | 7 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,1-Dichloropropene | - | (-) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2,3-Trichlorobenzene | 7 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2,3-Trichloropropane | 0.01 | (4) | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| 1,2,4-Trichlorobenzene | 11.55 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2,4-Trimethylbenzene | 56 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2-Dibromo-3-chloropropane | 0.2 | (2) | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| 1,2-Dibromoethane (EDB) | 0.05 | (3) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2-Dichlorobenzene | 302 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2-Dichloroethane (EDC) | 1.71 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,2-Dichloropropane | 4.376 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,3,5-Trimethylbenzene | 60 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,3-Dichlorobenzene | - | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,3-Dichloropropane | 370 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1,4-Dichlorobenzene | 75 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 1-Methylnaphthalene | 11 | (5) | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | |
| | 11 | (5) | | | | + | | | | _ | | _ |
| 2,2-Dichloropropane | - | (4) | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| 2-Butanone | 5565 | (4) | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | |
| 2-Chlorotoluene | 240 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 2-Hexanone | - | (4) | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | |
| 2-Methylnaphthalene | 36 | (1) | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | | < 4.0 | |
| 4-Chlorotoluene | 250 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 4-Isopropyltoluene | - | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| 4-Methyl-2-pentanone | - | (1) | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | |
| Acetone | 14064 | (4) | 2.6 J | | 2.6 J | | 2.6 J | | < 10 | | < 10 | |
| Benzene | 5 | (3) | < 1.0 | <1.0 | < 1.0 | <1.0 | < 1.0 | <1.0 | < 1.0 | <1.0 | < 1.0 | <1.0 |
| Bromobenzene | 62 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Bromodichloromethane | 1.34 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Bromoform | 33 | (5) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Bromomethane | 7.545 | (4) | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | |
| Carbon disulfide | 810 | (4) | < 10 | | < 10 | | < 10 | | < 10 | | < 10 | |
| Carbon Tetrachloride | 5 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Chlorobenzene | 100 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Chloroethane | 20900 | (4) | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| Chloroform | 2.29 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Chloromethane | 20.3 | (4) | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | | < 3.0 | |
| cis-1,2-DCE | 70 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| cis-1,3-Dichloropropene | 4.7 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Dibromochloromethane | 1.68 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Dibromomethane | 8.3 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Dichlorodifluoromethane | 197 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Ethylbenzene | 700 | (3) | < 1.0 | <1.0 | < 1.0 | <1.0 | < 1.0 | <1.0 | < 1.0 | <1.0 | < 1.0 | <1.0 |
| Hexachlorobutadiene | 1.39 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Isopropylbenzene | 447 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |

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| | Screening | | | | | | MW 20 | | | | • | |
|---|------------|------------|------------------|---------------------|-----------------|---------------------|------------------|---------------------|-----------------|---------------------|---------------------|---------------------|
| | Levels | Source | A.u. 10 | Apr 10 | Aug 10 | Anz 10 | MW-38 | Apr 17 | Aug 16 | Apr 16 | A.v. 45 | Apr 15 |
| Methyl tert-butyl ether (MTBE) | 100 | (2) | Aug-19 0.65 J | Apr-19 < 1.0 | Aug-18 < 1.0 | Apr-18 < 1.0 | Aug-17 0.41 J | Apr-17 < 1.0 | Aug-16 < 1.0 | Apr-16 < 1.0 | Aug-15 < 1.0 | Apr-15 < 1.0 |
| Methylene Chloride | 5 | (3) | < 3.0 | | < 3.0 | < 1.0 | < 3.0 | < 1.0 | < 3.0 | < 1.0 | < 3.0 | |
| Naphthalene | 1.65 | (4) | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | | < 2.0 | |
| n-Butylbenzene | 1000 | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 3.0 | | < 3.0 | |
| , | 660 | | | _ | | | < 3.0 | | | | < 1.0 | |
| n-Propylbenzene | 2000 | (1) | < 3.0 < 1.0 | | < 3.0 < 1.0 | | < 1.0 | | < 1.0 < 1.0 | | < 1.0 | |
| sec-Butylbenzene | | (1) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Styrene | 100 690 | (2) | 0.57 J | _ | | | | | | | < 1.0 | |
| tert-Butylbenzene Tetrachloroethene (PCE) | 5 | (1) (2) | < 1.0 | | < 1.0 < 1.0 | | 0.48 J < 1.0 | | < 1.0 < 1.0 | | < 1.0 | |
| ` | 1000 | | | <1.0 | | <1.0 | | <1.0 | < 1.0 | | < 1.0 | <1.0 |
| Toluene trans-1,2-DCE | 1000 | (3) | < 1.0 < 1.0 | <1.0 | < 1.0 < 1.0 | <1.0 | < 1.0 < 1.0 | <1.0 | < 1.0 | <1.0 | < 1.0 | <1.0 |
| | | (2) | | _ | | _ | | | | | | |
| trans-1,3-Dichloropropene | 4.71 | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Trichloroethene (TCE) | 5 1136 | (2) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Trichlorofluoromethane | | (4) | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | | < 1.0 | |
| Vinyl chloride | 2 620 | (3) | < 1.0 | 4.5 | < 1.0 | 4.5 | < 1.0 | 4.5 | < 1.0 | 4.5 | < 1.0 | 4.5 |
| Xylenes, Total | | (3) | < 1.5 | <1.5 | < 1.5 | <1.5 | < 1.5 | <1.5 | < 1.5 | <1.5 | < 1.5 | <1.5 |
| Semi-Volatile Organic Compounds | | (0) | 40 | | 40 | | | | 40 | | | |
| 1,2,4-Trichlorobenzene | 70 | (2) | < 10 | | < 10 | | | | < 10 | | | |
| 1,2-Dichlorobenzene | 600 | (2) | < 10 | | < 10 | | | | < 10 | | | |
| 1,3-Dichlorobenzene | - | (0) | < 10 | | < 10 | | | | < 10 | | | |
| 1,4-Dichlorobenzene | 75 | (2) | < 10 | | < 10 | | | | < 10 | | | |
| 1-Methylnaphthalene | 11 | (5) | < 10 | | < 10 | | | | < 10 | | | |
| 2,4,5-Trichlorophenol | 1166 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| 2,4,6-Trichlorophenol | 11.9 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| 2,4-Dichlorophenol | 45.3 | (4) | < 20 | | < 20 | | | | < 20 | | | |
| 2,4-Dimethylphenol | 354 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| 2,4-Dinitrophenol | 38.7 | (4) | < 20 | | < 20 | | | | < 20 | | | |
| 2,4-Dinitrotoluene | 2.375 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| 2,6-Dinitrotoluene | 0.485 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| 2-Chloronaphthalene | 733 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| 2-Chlorophenol | 91 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| 2-Methylnaphthalene | 36 | (1) | < 10 | | < 10 | | | | < 10 | | | |
| 2-Methylphenol | 930 | (1) | < 10 | | < 10 | | | | < 10 | | | |
| 2-Nitroaniline | 190 | (1) | < 10 | | < 10 | | | | < 10 | | | |
| 2-Nitrophenol | - | (1) | < 10 | | < 10 | | | | < 10 | | | |
| 3,3´-Dichlorobenzidine | 1.25 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| 3+4-Methylphenol | 930 | (1) | < 10 | | < 10 | | | | < 10 | | | |
| 3-Nitroaniline | - | 4.13 | < 10 | | < 10 | | | | < 10 | | | |
| 4,6-Dinitro-2-methylphenol | 1.52 | (4) | < 20 | | < 20 | | | | < 20 | | | |
| 4-Bromophenyl phenyl ether | - | | < 10 | | < 10 | | | | < 10 | | | |
| 4-Chloro-3-methylphenol | - | (5) | < 10 | | < 10 | | | | < 10 | | | |
| 4-Chloroaniline | 3.7 | (5) | < 10 | | < 10 | | | | < 10 | | | |
| 4-Chlorophenyl phenyl ether | - | 4 | < 10 | | < 10 | | | | < 10 | | | |
| 4-Nitroaniline | 38 | (5) | < 10 | | < 10 | | | | < 10 | | | |
| 4-Nitrophenol | - | | < 10 | | < 10 | | | | < 10 | | | |
| Acenaphthene | 535 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Acenaphthylene | - | | < 10 | | < 10 | | | | < 10 | | | |
| Aniline | 130 | (5) | < 10 | | < 10 | | | | < 10 | | | |
| Anthracene | 1721 | (4) | < 10 | | < 10 | | | | < 10 | | | |

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| | Screening | | | | | | MM/ 20 | | | _ | • | |
|-----------------------------------|-------------------|--------|--------------|--------|--------------|--------|--------|----------|--------------|--------|--------|--------------|
| | Levels | Source | Aug. 40 | Ams 40 | Aug 40 | Ans 40 | MW-38 | A m = 47 | Aug 40 | Ame 40 | Aug 45 | A 11 . 4 . 5 |
| A-ah au | | (5) | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Azobenzene | 1.2 0.1199 | (5) | < 10 | | < 10 | | | | < 10 | | | |
| Benzo(a)anthracene | 0.1199 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Benzo(a)pyrene | 0.2 | (2) | < 10 | | < 10 | | | | < 10 | | | |
| Benzo(b)fluoranthene | | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Benzo(g,h,i)perylene | 3.43 | (4) | < 10 < 10 | | < 10 < 10 | | | | < 10 < 10 | | | |
| Benzo(k)fluoranthene | 75000 | (4) | < 20 | | < 20 | | | | < 20 | | | |
| Benzoic acid | 2000 | (1) | < 10 | | < 10 | | | | < 10 | | | |
| Benzyl alcohol | 59 | (1) | < 10 | | < 10 | | | | < 10 | | | |
| Bis(2-chloroethoxy)methane | 0.137 | (1) | < 10 | | < 10 | | | | | | | |
| Bis(2-chloroethyl)ether | 9.81 | (4) | < 10 | | < 10 | | | | < 10 < 10 | | | |
| Bis(2-chloroisopropyl)ether | | (4) | | | < 10 | | | | | | | |
| Bis(2-ethylhexyl)phthalate | 6 160 | (2) | < 10 | | | | | | < 10 | | | |
| Butyl benzyl phthalate | - | (5) | < 10 | | < 10 | | | | < 10 | | | |
| Carbazole | | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Chrysene Dibenz(a,h)anthracene | 34.3171 0.0343 | (4) | < 10 < 10 | | < 10 < 10 | | | | < 10 < 10 | | | |
| | 0.0343 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Dibenzofuran | 1 1000 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Diethyl phthalate | 14800 | (4) | < 10 | | | | | | < 10 | | | |
| Dimethyl phthalate | - | (4) | | | < 10 | | | | | | | |
| Di-n-butyl phthalate | 885 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Di-n-octyl phthalate | - | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Fluoranthene | 802 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Fluorene | 288 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Hexachlorobenzene | 0.0976 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Hexachlorobutadiene | 1.387 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Hexachlorocyclopentadiene | 0.411 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Hexachloroethane | 3.2842 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Indeno(1,2,3-cd)pyrene | 0.3432 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Isophorone | 781 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Naphthalene | 1.65 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Nitrobenzene | 1.4 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| N-Nitrosodimethylamine | 0.0049 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| N-Nitrosodi-n-propylamine | 0.11 | (5) | < 10 | | < 10 | | | | < 10 | | | |
| N-Nitrosodiphenylamine | 121.922 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Pentachlorophenol | 0.4129 | (4) | < 20 | | < 20 | | | | < 20 | | | |
| Phenanthrene | 170.4146 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Phenol | 5761 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Pyrene | 117 | (4) | < 10 | | < 10 | | | | < 10 | | | |
| Pyridine | 20 | (1) | < 10 | | < 10 | | | | < 10 | | | |
| General Chemistry (mg/L) | | 4-1 | | | | | | | | | | |
| Fluoride | 1.6 | (3) | 0.6 | | 0.4 | | 0.53 | | 0.64 | | 0.84 | |
| Chloride | 250 | (3) | 170 | | 140 | | 100 | | 75 | | 30 | |
| Nitrite | 1 | (3) | 0.097 J | | <1.0 | | 0.17 J | | < 1.0 | | < 0.10 | |
| Bromide | - | 41. | 2.3 | | 1.9 | | 1.4 | | 0.98 | | 0.38 | |
| Nitrate | 10 | (3) | 0.097 J | | <1.0 | | 0.17 J | | < 1.0 | | < 0.10 | |
| Phosphorus | - | | <2.5 H | | <0.50 H | | < 2.5 | | < 0.50 | | < 0.50 | |
| Sulfate | 600 | (3) | 13 | | 21 | | 3.4 | | 4.6 | | 30 | |
| Carbon Dioxide (CO ₂) | - | | 620 H | | 630 H | | 530 | | 450 | | 310 | |
| Alkalinity (CaCO ₃) | - | | 686.8 | | 682.4 | | 587.7 | | 497 | | 345.6 | |
| Bicarbonate (CaCO ₃) | - | | 686.8 | | 682.4 | | 587.7 | | 497 | | 345.6 | |
| biodiboliate (0a003) | | | 0.00 | | JU2.4 | | 301.1 | | 431 | | J4J.0 | |

| • | | | | | | | | | | | - | |
|-----------------------------------|-----------|--------|------------|--------|----------|--------|--------------|--------|-----------|--------|-----------|--------|
| | Screening | Source | | | | | MW-38 | | | | | |
| | Levels | Oouroo | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Total Metals (mg/L) | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | < 0.020 | | <0.020 | | 0.015 J | | < 0.020 | | < 0.020 | |
| Barium | 2.0 | (3) | 0.56 | | 0.57 | | 0.69 | | 0.6 | | 0.16 | |
| Cadmium | 0.005 | (3) | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | |
| Chromium | 0.05 | (3) | 0.0070 | | <0.0060 | | 0.042 | | < 0.0060 | | < 0.0060 | |
| Lead | 0.015 | (3) | < 0.0050 | | < 0.0050 | | < 0.0050 | | 0.0093 | | < 0.0050 | |
| Selenium | 0.05 | (3) | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | | < 0.050 | |
| Silver | 0.05 | (3) | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | |
| Mercury | 0.002 | (3) | 0.000044 J | | <0.00020 | | < 0.000039 J | | < 0.00020 | | < 0.00020 | |
| Dissolved Metals (mg/L) | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | | < 0.020 | |
| Barium | 1.0 | (3) | 0.55 | | 0.52 | | 0.43 | | 0.55 | | 0.16 | |
| Cadmium | 0.005 | (3) | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | | < 0.0020 | |
| Calcium | - | | 130 | | 120 | | 100 | | 98 | | 37 | |
| Chromium | 0.05 | (3) | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | | < 0.0060 | |
| Copper | 1 | (3) | < 0.0060 | | < 0.0060 | | < 0.0060 | | 0.033 | | < 0.0060 | |
| Iron | 1 | (3) | 0.18 | | 0.13 | | 0.16 | | 13 | | 0.032 | |
| Lead | 0.015 | (3) | < 0.0050 | | < 0.0050 | | < 0.0050 | | 0.014 | | < 0.0050 | |
| Magnesium | - | | 21 | | 20 | | 16 | | 16 | | 6 | |
| Manganese | 0.2 | (3) | 2.8 | | 2.7 | | 2.4 | | 3 | | 0.93 | |
| Potassium | - | | 2.3 | | 2.2 | | 1.9 | | 2.8 | | 1.1 | |
| Selenium | 0.05 | (3) | < 0.050 | | < 0.050 | | 0.030 J | | < 0.050 | | < 0.050 | |
| Silver | 0.05 | (3) | 0.0018 J | | < 0.0050 | | < 0.0050 | | < 0.0050 | | < 0.0050 | |
| Sodium | - | | 220 | | 210 | | 190 | | 180 | | 130 | |
| Uranium | 0.03 | (3) | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | | < 0.10 | |
| Zinc | 10 | (3) | 0.025 | | <0.020 | | 0.034 | | 0.053 | | 0.022 | |
| Total Petroleum Hydrocarbons (mg/ | 'L) | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (6) | < 0.40 | 0.43 | < 0.40 | <0.40 | < 0.20 | <0.20 | 0.28 | <0.20 | < 0.20 | <0.20 |
| Gasoline Range Organics | 0.0101 | (6) | 0.052 | <0.050 | 0.18 | 0.058 | 0.047 J | <0.050 | < 0.050 | <0.050 | < 0.050 | <0.050 |
| Motor Oil Range Organics | 0.0858 | (6) | < 2.5 | <2.5 | < 2.5 | <2.5 | <2.5 | <2.5 | < 2.5 | <2.5 | < 2.5 | <2.5 |

Notes:

- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018)
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remediation (February 2019)
- (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds
- (6) NMED SSG (June 2019)

| (0) | (****** |
|-----|--|
| - | = No screening level available |
| * | = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time |
| | = Analysis not required and/or well contains separate phase |
| | = Analytical result exceeds the respective screening level. |

= Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

TABLE 6
RCRA Wells Analytical Summary
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| | | 1 | 1 | | | | | | BB14 F4 | | | | | 1414/ FO | | | ******** | |
|--|---------------------|--------|---------|----------------|--------|---------|--------|--------|----------------|----------------|----------------|----------------|---------|----------------|----------------|----------------|----------|---------|
| | Screening Levels | Source | A.u. 47 | | /-50 | A.c. 44 | A 40 | A 40 | MW-51 | A 4C | A 45 | A.u. 40 | A.u. 40 | MW-53 | A 4C | A 4 E | **MW-54 | **MW-55 |
| Volatile Organic Compounds | | | Aug-17 | Aug-16 | Aug-15 | Aug-14 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-19 |
| 1,1,1,2-Tetrachloroethane | <u> </u> | (4) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 2.0 | < 1.0 | < 1.0 | | |
| 1,1,1-Trichloroethane | 5 | (3) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| 1,1,2,2-Tetrachloroethane | 10 | (3) | | < 2.0 | | | | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | |
| 1,1,2-Trichloroethane | 5 | (3) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| 1,1-Dichloroethane | 25 | (3) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| 1,1-Dichloroethene | 7 | (3) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| 1,1-Dichloropropene | 7 | (4) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| 1,2,3-Trichlorobenzene 1,2,3-Trichloropropane | | (1) | | < 1.0 < 2.0 | | | | | < 1.0 < 2.0 | < 1.0 < 2.0 | < 1.0 < 2.0 | < 1.0 < 2.0 | | < 1.0 < 2.0 | < 1.0 < 2.0 | < 1.0 < 2.0 | | |
| 1,2,4-Trichlorobenzene | | (4) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| 1,2,4-Trimethylbenzene | 56 | (1) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| 1,2-Dibromo-3-chloropropane | 0.2 | (2) | | < 2.0 | | | | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | |
| 1,2-Dibromoethane (EDB) | 0.05 | (3) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| 1,2-Dichlorobenzene | 302 | (4) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| 1,2-Dichloroethane (EDC) | 1.71 | (4) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| 1,2-Dichloropropane | | (4) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| 1,3,5-Trimethylbenzene 1,3-Dichlorobenzene | - 60 | (1) | | < 1.0 < 1.0 | | | | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | |
| 1,3-Dichloropenzene | | (1) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| 1,4-Dichlorobenzene | 75 | (2) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| 1-Methylnaphthalene | 11 | (5) | | < 4.0 | | | | | < 4.0 | < 4.0 | < 4.0 | < 4.0 | | < 4.0 | < 4.0 | < 4.0 | | |
| 2,2-Dichloropropane | | | | < 2.0 | | | | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | |
| 2-Butanone | 5565 | (4) | | < 10 | | | | | < 10 | < 10 | < 10 | < 10 | | < 10 | < 10 | < 10 | | |
| 2-Chlorotoluene | 240 | (1) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| 2-Hexanone | - | (1) | | < 10 | | | | | < 10 | < 10 | < 10 | < 10 | | < 10 | < 10 | < 10 | | |
| 2-Methylnaphthalene | 36 | (1) | | < 4.0 | | | | | < 4.0 | < 4.0 | < 4.0 | < 4.0 | | < 4.0 | < 4.0 | < 4.0 | | |
| 4-Chlorotoluene 4-Isopropyltoluene | 250 | (1) | | < 1.0 < 1.0 | | | | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | |
| 4-Methyl-2-pentanone | | | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Acetone | | (4) | | < 10 | | | | | 1.6 J | < 10 | < 10 | < 10 | | 3.2 J | < 10 | < 10 | | |
| Benzene | 5 | (3) | | < 1.0 | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | |
| Bromobenzene | 62 | (1) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Bromodichloromethane | | (4) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Bromoform | 33 | (5) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Bromomethane | - | (4) | | < 3.0 | | | | | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | < 3.0 | < 3.0 | < 3.0 | | |
| Carbon disulfide Carbon Tetrachloride | 810 5 | (4) | | < 10 < 1.0 | | | | | < 10 < 1.0 | < 10 < 1.0 | < 10 < 1.0 | < 10 < 1.0 | | < 10 < 1.0 | < 10 < 1.0 | < 10 < 1.0 | | |
| Carbon Tetrachionde Chlorobenzene | 100 | (2) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Chloroethane | - | (4) | | < 2.0 | | | | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | |
| Chloroform | 2.29 | (4) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Chloromethane | | (4) | | < 3.0 | | | | | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | < 3.0 | < 3.0 | < 3.0 | | |
| cis-1,2-DCE | 70 | (2) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| cis-1,3-Dichloropropene | | (4) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Dibromochloromethane | | (4) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Dibromomethane | | (1) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Dichlorodifluoromethane | | (4) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Ethylbenzene Hexachlorobutadiene | | (3) | | < 1.0 < 1.0 | | | | < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | |
| Isopropylbenzene | | (4) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Methyl tert-butyl ether (MTBE) | 100 | (3) | | < 1.0 | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | 0.69 J | < 1.0 | 0.63 J | < 1.0 | < 1.0 | | |
| Methylene Chloride | | (2) | | < 3.0 | | | | | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | < 3.0 | < 3.0 | < 3.0 | | |
| Naphthalene | 1.65 | (4) | | < 2.0 | | | | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | |
| n-Butylbenzene | | (1) | | < 3.0 | | | | | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | < 3.0 | < 3.0 | < 3.0 | | |
| n-Propylbenzene | | (1) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| sec-Butylbenzene | <u> </u> | (1) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Styrene | | (2) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| tert-Butylbenzene Tetrachloroethene (PCE) | | (1) | | < 1.0 < 1.0 | | | | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | |
| Toluene | | (3) | | < 1.0 | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | |
| trans-1,2-DCE | | (2) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| trans-1,3-Dichloropropene | | (4) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Trichloroethene (TCE) | | (2) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Trichlorofluoromethane | | (4) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Vinyl chloride | | (3) | | < 1.0 | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | |
| Xylenes, Total | 620 | (3) | | < 1.5 | | | | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | | |

TABLE 6
RCRA Wells Analytical Summary
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| | Screening | | | MW | /-50 | | | | MW-51 | | | | | MW-53 | | | **MW-54 | **MW-55 |
|---|-------------|--------|--------|--------------|--------|--------|--------|--------------|--------|--------------|--------|--------|--------|--------|--------|--------------|---------|---------|
| | Levels | Source | Aug-17 | Aug-16 | Aug-15 | Aug-14 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-19 |
| Semi-Volatile Organic Compo | unds (ua/L) |) | Aug II | Aug 10 | Aug 10 | Aug 14 | Aug 10 | Aug 10 | Aug II | Aug 10 | Aug 10 | Aug 13 | Aug 10 | Aug II | Aug IV | Aug 10 | Aug 10 | Aug 10 |
| 1,2,4-Trichlorobenzene | | (2) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 1,2-Dichlorobenzene | 600 | (2) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 1,3-Dichlorobenzene | - | | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 1,4-Dichlorobenzene | 75 | (2) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 1-Methylnaphthalene | 11 | (5) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 2,4,5-Trichlorophenol | 1166 | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 2,4,6-Trichlorophenol | 11.9 | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 2,4-Dichlorophenol | 45.3 | (4) | | < 20 | | | | < 20 | | < 20 | | | | | | < 20 | | |
| 2,4-Dimethylphenol | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 2,4-Dinitrophenol | 38.7 | (4) | | < 20 | | | | < 20 | | < 20 | | | | | | < 20 | | |
| 2,4-Dinitrotoluene | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 2,6-Dinitrotoluene | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 2-Chloronaphthalene | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 2-Chlorophenol | 91 | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 2-Methylnaphthalene | | (1) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 2-Methylphenol | | (1) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 2-Nitroaniline | 190 | (1) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 2-Nitrophenol | - | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 3,3´-Dichlorobenzidine | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 3+4-Methylphenol | 930 | (1) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 3-Nitroaniline 4,6-Dinitro-2-methylphenol | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| | 1.52 | (4) | | < 20 < 10 | | | | < 20 | | < 20 < 10 | | | | | | < 20 < 10 | | |
| 4-Bromophenyl phenyl ether 4-Chloro-3-methylphenol | - | | | < 10 | | | | < 10 < 10 | | < 10 | | | | | | < 10 | | |
| 4-Chloro-3-methylphenol | 3.7 | (5) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 4-Chlorophenyl phenyl ether | - | (3) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 4-Nitroaniline | 38 | (5) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| 4-Nitrophenol | - | (3) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Acenaphthene | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Acenaphthylene | - | (-) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Aniline | 130 | (5) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Anthracene | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Azobenzene | | (5) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Benzo(a)anthracene | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Benzo(a)pyrene | | (2) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Benzo(b)fluoranthene | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Benzo(g,h,i)perylene | - | | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Benzo(k)fluoranthene | 3.43 | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Benzoic acid | 75000 | (1) | | < 20 | | | | < 20 | | < 20 | | | | | | < 20 | | |
| Benzyl alcohol | 2000 | (1) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Bis(2-chloroethoxy)methane | 59 | (1) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Bis(2-chloroethyl)ether | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Bis(2-chloroisopropyl)ether | 9.81 | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Bis(2-ethylhexyl)phthalate | 6 | (2) | | < 10 | | | | < 10 | | < 10 | | | | | | 12 | | |
| Butyl benzyl phthalate | | (5) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Carbazole | | | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Chrysene | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Dibenz(a,h)anthracene | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Dibenzofuran | | 4.13 | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Diethyl phthalate | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Dimethyl phthalate | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Di-n-butyl phthalate | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Di-n-octyl phthalate | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Fluoranthene | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Fluorene Hexachlorobenzene | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Hexachlorobutadiene | | (4) | | < 10 < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Hexachlorocyclopentadiene Hexachloroethane | | (4) | | < 10 | | | | < 10 < 10 | | < 10 < 10 | | | | | | < 10 < 10 | | |
| Indeno(1,2,3-cd)pyrene | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Indeno(1,2,3-cd)pyrene | | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| isopilototte | 101 | (4) | | <u> </u> | | | | <u> </u> | | < 10 | | | | | | <u> </u> | | |

| | Screening | | | MW | -50 | | | | MW-51 | | | | | MW-53 | | | **MW-54 | **MW-55 |
|----------------------------------|-----------|--------|--------|-----------|--------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|---------|
| | Levels | Source | Aug 17 | | Aug-15 | Aug 14 | Aug-19 | Aug 10 | | Aug-16 | Aug 15 | Aug 10 | Aug 19 | | Aug 16 | Aug 15 | | |
| Nowhthologo | | (4) | Aug-17 | Aug-16 | | Aug-14 | | Aug-18 | Aug-17 | | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-19 |
| Naphthalene | 1.65 | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Nitrobenzene | 1.4 | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| N-Nitrosodimethylamine | 0.0049 | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| N-Nitrosodi-n-propylamine | 0.11 | (5) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| N-Nitrosodiphenylamine | 121.922 | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Pentachlorophenol | 0.4129 | (4) | | < 20 | | | | < 20 | | < 20 | | | | | | < 20 | | |
| Phenanthrene | 170.4146 | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Phenol | 5761 | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Pyrene | 117 | (4) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| Pyridine | 20 | (1) | | < 10 | | | | < 10 | | < 10 | | | | | | < 10 | | |
| General Chemistry (mg/L) | | (=) | | | | | | | | | | | | | | | | |
| Fluoride | 1.6 | (3) | | 0.23 | | | | 0.40 | 0.37 | 0.5 | 0.52 | <0.050 | < 2.0 | < 0.10 | < 0.10 | < 0.10 | | |
| Chloride | 250 | (3) | | 4.5 | | | | 8.3 | 11 | 11 | 8.3 | 920 | 890 | 1000 | 920 | 960 | | |
| Nitrite | 1 | (3) | | < 0.10 | | | | <1.0 | < 0.10 | < 0.10 | < 0.10 | 14 | 15 | < 2.0 | < 2.0 | < 2.0 | | |
| Bromide | - | | | < 0.10 | | | | < 0.10 | < 0.10 | 0.15 | < 0.10 | 1.8 | 2.2 | 2.2 | 3 | 2.1 | | |
| Nitrate | 10 | (3) | | 0.23 | | | | <1.0 | 0.44 | 1.7 | 0.34 | 14 | 15 | 12 | 12 | 9.3 | | |
| Phosphorus | - | | | < 0.50 | | | | < 0.50 | < 0.50 | < 0.50 | < 0.50 | <2.5 H | < 0.50 | < 0.50 | < 0.50 | < 10 | | |
| Sulfate | 600 | (3) | | 37 | | | | 12 | 45 | 120 | 43 | 960 | 900 | 1100 | 980 | 1000 | | |
| Carbon Dioxide (CO ₂₎ | - | | | 230 | | | | 230 | 270 | 220 | 240 | 320 | 330 | 300 | 300 | 290 | | |
| Alkalinity (CaCO ₃) | - | | | 255.9 | | | | 254.1 | 287.7 | 243 | 264.9 | 350.9 | 350.6 | 331.1 | 329.8 | 318.5 | | |
| Bicarbonate (CaCO ₃) | | | | 255.9 | | | | 254.1 | 287.7 | 243 | 264.9 | | | | 329.8 | 318.5 | | |
| | - | | | 255.9 | | | | 234.1 | 201.1 | 243 | 204.9 | 350.9 | 350.6 | 331.1 | 329.0 | 310.3 | | |
| Total Metals (mg/L) | 2.21 | (0) | | | | | | 2 222 | 2.25 | 0.000 | | | | | | | | |
| Arsenic | 0.01 | (3) | | < 0.020 | | | | < 0.020 | < 0.050 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.050 | < 0.020 | < 0.020 | | |
| Barium | 2.0 | (3) | | 0.31 | | | | 0.17 | 0.12 | 0.12 | 0.11 | 0.28 | < 0.020 | 0.12 | 0.051 | 0.64 | | |
| Cadmium | 0.005 | (3) | | < 0.0020 | | | | < 0.0020 | < 0.0020 | | | < 0.0020 | < 0.0020 | < 0.0020 | | < 0.0020 | | |
| Chromium | 0.05 | (3) | | 0.0092 | | | | < 0.0060 | < 0.0060 | | | 0.0040 J | < 0.0060 | 0.0034 J | | 0.012 | | |
| Lead | 0.015 | (3) | | 0.0059 | | | | < 0.0050 | < 0.0050 | | | 0.0043 J | < 0.0050 | < 0.0050 | | 0.01 | | |
| Selenium | 0.05 | (3) | | < 0.050 | | | | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.0050 | | |
| Silver | 0.05 | (3) | | < 0.0050 | | | | | | < 0.0050 | | 0.0040 J | 0.01 | < 0.0050 | | < 0.050 | | |
| Mercury | 0.002 | (3) | | < 0.00020 | | | | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | 0.00015 J | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | | |
| Dissolved Metals (mg/L) | | | | | | | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | | < 0.020 | | | | 0.020 | 0.015 J | < 0.020 | < 0.020 | < 0.020 | < 0.020 | 0.052 | < 0.020 | < 0.020 | | |
| Barium | 1.0 | (3) | | 0.077 | | | | 0.12 | 0.11 | 0.063 | 0.05 | 0.011 J | < 0.020 | 0.013 J | < 0.020 | 0.026 | | |
| Cadmium | 0.005 | (3) | | < 0.0020 | | | | < 0.0020 | | | | < 0.0020 | < 0.0020 | < 0.0020 | | < 0.0020 | | |
| Calcium | - | | | 65 | | | | 60 | 71 | 91 | 63 | 330 | 380 | 380 | 390 | 360 | | |
| Chromium | 0.05 | (3) | | < 0.0060 | | | | < 0.0060 | < 0.0060 | | | < 0.0060 | < 0.0060 | < 0.0060 | | < 0.0060 | | |
| Copper | 1 | (3) | | < 0.0060 | | | | < 0.0060 | < 0.0060 | | | 0.0034 J | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | | |
| Iron | 1 | (3) | | 0.2 | | | | 0.075 | 0.037 | 0.15 | 0.041 | <0.020 | <0.020 | 0.0065 J | < 0.020 | 0.21 | | |
| Lead | 0.015 | (3) | | < 0.0050 | | | | 0.0086 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | | |
| Magnesium | - | | | 14 | | | | 12 | 14 | 18 | 13 | 50 | 52 | 54 | 56 | 54 | | |
| Manganese | 0.2 | (3) | | 1.6 | | | | 2.5 | 2.4 | 0.95 | 0.77 | 0.30 | 0.48 | 0.57 | 0.61 | 0.41 | | |
| Potassium | - | | | 1.9 | | | | 1.5 | 1.7 | 1.8 | 1.7 | 4.4 | 4.1 | 4.6 | 5 | 5.3 | | |
| Selenium | 0.05 | (3) | | < 0.050 | | | | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | | |
| Silver | 0.05 | (3) | | < 0.0050 | | | | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | 0.0043 J | 0.011 | < 0.0050 | < 0.0050 | < 0.0050 | | |
| Sodium | - | | | 41 | | | | 37 | 40 | 51 | 47 | 720 | 770 | 770 | 780 | 800 | | |
| Uranium | 0.03 | (3) | | < 0.10 | | | | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | | |
| Zinc | 10 | (3) | | 0.021 | | | | < 0.020 | 0.016 J | | < 0.020 | 0.022 | <0.020 | 0.026 | 0.025 | 0.028 | | |
| Total Petroleum Hydrocarbons | | , | | · · · · | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (6) | | < 0.20 | | | | < 0.40 | < 0.20 | < 0.20 | < 0.20 | < 0.40 | < 0.40 | < 0.20 | < 0.20 | < 0.20 | | |
| Gasoline Range Organics | 0.0101 | (6) | | < 0.050 | | | | < 0.050 | < 0.050 | | | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | | |
| Motor Oil Range Organics | | | | | | | | | | | | | | | | | | |
| Motor Oil Range Organics | 0.0858 | (6) | | < 2.5 | | | | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | | |

Notes:

- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018)
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remediation (February 2019)
- (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds
- (6) NMED SSG (June 2019)

| , | |
|---|--|
| - | = No screening level available |
| * | = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time |
| | = Analysis not required and/or well contains separate phase |
| | = Analytical result exceeds the respective screening level. |

= Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

TABLE 6
RCRA Wells Analytical Summary
2019 Groundwater Remediation and Monitoring Annual Report

| | Caraanina | | | | MANA EC | | | | | MIN ET | | | **MW-58 | | | MANA FO | | | | ******* | |
|--|---------------------|------------|--------|--------|-----------------|--------------------|--------|--------|--------|-----------------|--------------------|--------|---------|------------------|--------|-------------------|-------------------|-------------------|--------|-------------------|----------------|
| | Screening Levels | Source | Aug-19 | Aug-18 | MW-56 Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | MW-57 Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-19 | Aug-18 | MW-59 Aug-17 | Aug-16 | Aug-15 | Aug-19 | **MW-60 Aug-18 | Aug-17 |
| Volatile Organic Compounds | | | Aug-19 | Aug-10 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-16 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-19 | Aug-16 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-16 | Aug-17 |
| 1,1,1,2-Tetrachloroethane | 5.74 | (4) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| 1,1,1-Trichloroethane | 5 | (3) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| 1,1,2,2-Tetrachloroethane | 10 | (3) | | | | < 2.0 | | | | | < 20 | | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | | < 2.0 |
| 1,1,2-Trichloroethane | 5 | (3) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| 1,1-Dichloroethane | 25 | (3) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| 1,1-Dichloroethene | 7 | (3) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| 1,1-Dichloropropene 1.2.3-Trichlorobenzene | 7 | (1) | | | | < 1.0 | | | | | < 10 < 10 | | | < 1.0 < 1.0 | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | | < 1.0 < 1.0 |
| 1,2,3-Trichloropropane | 0.01 | (4) | | | | < 2.0 | | | | | < 20 | | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | | < 2.0 |
| 1,2,4-Trichlorobenzene | 11.55 | (4) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| 1,2,4-Trimethylbenzene | 56 | (1) | | | | 300 | | | | | 37 | | | <1.0 | | 0.35 J | < 1.0 | < 1.0 | | | 0.24 J |
| 1,2-Dibromo-3-chloropropane | 0.2 | (2) | | | | < 2.0 | | | | | < 20 | | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | | < 2.0 |
| 1,2-Dibromoethane (EDB) | 0.05 | (3) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| 1,2-Dichlorobenzene | 302 | (4) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| 1,2-Dichloroethane (EDC) | 1.71 | (4) | | | | < 1.0 | | | | | < 10 | | | 10 | | 38 | 25 | 18 | | | < 1.0 |
| 1,2-Dichloropropane 1,3,5-Trimethylbenzene | 4.376 60 | (4) | | | | < 1.0 97 | | | | | < 10 16 | | | < 1.0 < 1.0 | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | | < 1.0 < 1.0 |
| 1,3-Dichlorobenzene | - | (1) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| 1,3-Dichloropropane | 370 | (1) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| 1,4-Dichlorobenzene | 75 | (2) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| 1-Methylnaphthalene | 11 | (5) | | | | 19 | | | | | 100 | | | < 4.0 | | < 4.0 | < 4.0 | < 4.0 | | | 0.51 J |
| 2,2-Dichloropropane | - | | | | | < 2.0 | | | | | < 20 | | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | | < 2.0 |
| 2-Butanone | 5565 | (4) | | | | 26 | | | | | < 100 | | | < 10 | | < 10 | < 10 | < 10 | | | < 10 |
| 2-Chlorotoluene | 240 | (1) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 < 10 | < 1.0 | | | < 1.0 |
| 2-Hexanone 2-Methylnaphthalene | 36 | (1) | | | | < 10 26 | | | | | < 100 95 | | | < 10 < 4.0 | | < 10 < 4.0 | < 4.0 | < 10 < 4.0 | | | < 10 0.32 J |
| 4-Chlorotoluene | 250 | (1) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| 4-Isopropyltoluene | - | (.) | | | | 11 | | | | | < 10 | | | 0.53 J | | 0.84 J | 1.5 | < 1.0 | | | < 1.0 |
| 4-Methyl-2-pentanone | - | | | | | < 10 | | | | | < 100 | | | < 10 | | < 10 | < 10 | < 10 | | | < 10 |
| Acetone | 14064 | (4) | | | | 150 | | | | | < 100 | | | < 10 | | 4.9 J | < 10 | < 10 | | | < 10 |
| Benzene | 5 | (3) | | | | 180 | | | | | 2900 | | | 7.5 | 23 | 24 | 7.7 | 7.3 | | | 0.30 J |
| Bromobenzene | 62 | (1) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| Bromodichloromethane Bromoform | 1.34 | (4) (5) | | | | < 1.0 < 1.0 | | | | | < 10 < 10 | | | < 1.0 < 1.0 | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | | < 1.0 < 1.0 |
| Bromomethane | 7.545 | (4) | | | | < 3.0 | | | | | < 30 | | | < 3.0 | | < 3.0 | < 3.0 | < 3.0 | | | < 3.0 |
| Carbon disulfide | 810 | (4) | | | | < 10 | | | | | < 100 | | | < 10 | | < 10 | < 10 | < 10 | | | < 10 |
| Carbon Tetrachloride | 5 | (2) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| Chlorobenzene | 100 | (2) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| Chloroethane | 20900 | (4) | | | | < 2.0 | | | | | < 20 | | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | | < 2.0 |
| Chloroform | 2.29 | (4) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| Chloromethane | 20.3 | (4) | | | | < 3.0 | | | | | < 30 | | | < 3.0 | | < 3.0 | < 3.0 | < 3.0 | | | < 3.0 |
| cis-1,2-DCE cis-1,3-Dichloropropene | 70 4.7 | (2) | | | | < 1.0 < 1.0 | | | | | < 10 < 10 | | | < 1.0 < 1.0 | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | | < 1.0 < 1.0 |
| Dibromochloromethane | 1.68 | (4) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| Dibromomethane | 8.3 | (1) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| Dichlorodifluoromethane | 197 | (4) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| Ethylbenzene | 700 | (3) | | | | 88 | | | | | 270 | | | 64 | 76 | 40 | 65 | 29 | | | 0.14 J |
| Hexachlorobutadiene | 1.39 | (4) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| Isopropylbenzene | 447 | (4) | | | | 13 | | | | | 40 | | | 14 | 1400 | 8.4 | 12 | 5 | | | < 1.0 |
| Methyl tert-butyl ether (MTBE) Methylene Chloride | 100 5 | (3) | | | | 380 < 3.0 | | | | | 33 < 30 | | | 830 < 3.0 | 1400 | 1900 < 3.0 | 1200 < 3.0 | 1400 < 3.0 | | | < 1.0 < 3.0 |
| Naphthalene | 1.65 | (4) | | | | < 3.0 52 | | | | | 160 | | | < 2.0 | | 0.53 J | 2.8 | < 2.0 | | | < 2.0 |
| n-Butylbenzene | 1000 | (1) | | | | 10 | | | | | < 30 | | | 2.8 J | | 2.3 J | < 3.0 | < 3.0 | | | < 3.0 |
| n-Propylbenzene | 660 | (1) | | | | 19 | | | | | 53 | | | 21 | | 7.8 | 12 | 4.4 | | | < 1.0 |
| sec-Butylbenzene | 2000 | (1) | | | | 7.8 | | | | | < 10 | | | 4.7 | | 4.9 | 5.4 | 4.5 | | | < 1.0 |
| Styrene | 100 | (2) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| tert-Butylbenzene | 690 | (1) | | | | < 1.0 | | | | | < 10 | | | 0.46 J | | 0.56 J | < 1.0 | < 1.0 | | | < 1.0 |
| Tetrachloroethene (PCE) | 5 | (2) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| Toluene trans-1,2-DCE | 1000 | (3) | | | | 1.4 | | | | | < 10 | | | < 1.0 | < 1.0 | < 1.0 < 1.0 | < 1.0 | < 1.0 < 1.0 | | | < 1.0 |
| trans-1,3-Dichloropropene | 4.71 | (2) (4) | | | | < 1.0 < 1.0 | | | | | < 10 < 10 | | | < 1.0 < 1.0 | | < 1.0 | < 1.0 < 1.0 | < 1.0 | | | < 1.0 < 1.0 |
| Trichloroethene (TCE) | 5 | (2) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| Trichlorofluoromethane | 1136 | (4) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| Vinyl chloride | 2 | (3) | | | | < 1.0 | | | | | < 10 | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | | < 1.0 |
| Xylenes, Total | 620 | (3) | | | | 210 | | | | | 57 | | | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | | | < 1.5 |

TABLE 6
RCRA Wells Analytical Summary
2019 Groundwater Remediation and Monitoring Annual Report

| | Screening | Source | | | MW-56 | | | | | MW-57 | | | **MW-58 | | | MW-59 | | | | **MW-60 | |
|---|-------------|--------|--------|--------|--------|--------------|--------|--------|--------|--------|--------------|--------|---------|--------------|--------------|--------------|--------------|--------|--------|---------|--------------|
| | Levels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 |
| Semi-Volatile Organic Compou | unds (ug/L) | | | | | | | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 70 | (2) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 1,2-Dichlorobenzene | 600 | (2) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 1,3-Dichlorobenzene | - | | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 1,4-Dichlorobenzene | 75 | (2) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 1-Methylnaphthalene | 11 | (5) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 2,4,5-Trichlorophenol | 1166 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 2,4,6-Trichlorophenol | 11.9 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 2,4-Dichlorophenol | 45.3 | (4) | | | | < 20 | | | | | < 100 | | | < 20 | < 20 | < 100 | < 20 | | | | < 20 |
| 2,4-Dimethylphenol | 354 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 2,4-Dinitrophenol | 38.7 | (4) | | | | < 20 | | | | | < 100 | | | < 20 | < 20 | < 100 | < 20 | | | | < 20 |
| 2,4-Dinitrotoluene | 2.375 | (4) | | | | < 10 | | | | | < 50 < 50 | | | < 10 | < 10 | < 50 < 50 | < 10 | | | | < 10 |
| 2,6-Dinitrotoluene 2-Chloronaphthalene | 0.485 | (4) | | | | < 10 < 10 | | | | | < 50 < 50 | | | < 10 < 10 | < 10 < 10 | < 50 < 50 | < 10 < 10 | | | | < 10 |
| 2-Chlorophenol | 733 91 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 < 10 |
| 2-Methylnaphthalene | 36 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 2-Methylphenol | 930 | (1) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 2-Metryphenol 2-Nitroaniline | 190 | (1) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 2-Nitrophenol | - | (1) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 3,3´-Dichlorobenzidine | 1.25 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 3+4-Methylphenol | 930 | (1) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 3-Nitroaniline | - | (., | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 4,6-Dinitro-2-methylphenol | 1.52 | (4) | | | | < 20 | | | | | < 100 | | | < 20 | < 20 | < 100 | < 20 | | | | < 20 |
| 4-Bromophenyl phenyl ether | - | | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 4-Chloro-3-methylphenol | - | | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 4-Chloroaniline | 3.7 | (5) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 4-Chlorophenyl phenyl ether | - | | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 4-Nitroaniline | 38 | (5) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| 4-Nitrophenol | - | | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Acenaphthene | 535 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Acenaphthylene | - | | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Aniline | 130 | (5) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Anthracene | 1721 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Azobenzene | 1.2 | (5) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Benzo(a)anthracene | 0.1199 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Benzo(a)pyrene | 0.2 | (2) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Benzo(b)fluoranthene | 0.3432 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Benzo(g,h,i)perylene | - | | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Benzo(k)fluoranthene | 3.43 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Benzoic acid | 75000 | (1) | | | | < 20 | | | | | < 100 | | | < 20 | < 20 | 36 J | < 20 | | | | 10 J |
| Benzyl alcohol | 2000 | (1) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Bis(2-chloroethoxy)methane | 59 | (1) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Bis(2-chloroethyl)ether | 0.137 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Bis(2-chloroisopropyl)ether | 9.81 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Bis(2-ethylhexyl)phthalate Butyl benzyl phthalate | 6 160 | (2) | | | | < 10 < 10 | | | | | < 50 < 50 | | | < 10 < 10 | < 10 < 10 | < 50 < 50 | < 10 < 10 | | | | < 10 < 10 |
| Carbazole | - | (5) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Chrysene | | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Dibenz(a,h)anthracene | 0.0343 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Dibenzofuran | - | (+) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Diethyl phthalate | 14800 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Dimethyl phthalate | - | (+) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Di-n-butyl phthalate | 885 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Di-n-octyl phthalate | - | (*) | | | | 26 | | | | | 83 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Fluoranthene | 802 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Fluorene | 288 | (4) | | | | < 10 | | | | | 76 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Hexachlorobenzene | 0.0976 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Hexachlorobutadiene | 1.387 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Hexachlorocyclopentadiene | 0.411 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Hexachloroethane | 3.2842 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Indeno(1,2,3-cd)pyrene | 0.3432 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Isophorone | 781 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| | | , | | | | | | | | | | | | | | | | | | | |

| | Screening | | | | MW-56 | | | | | MW-57 | | | **MW-58 | | | MW-59 | | | | **MW-60 | |
|-------------------------------------|-----------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|---------------------|--------|---------|---------------------|---------------|---------------------|--------------|------------|--------|---------|--------------------------|
| | Levels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 |
| Naphthalene | 1.65 | (4) | | | | 16 | | | | | 240 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Nitrobenzene | 1.4 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| N-Nitrosodimethylamine | 0.0049 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| N-Nitrosodi-n-propylamine | 0.11 | (5) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| N-Nitrosodiphenylamine | 121.922 | (4) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Pentachlorophenol | 0.4129 | (4) | | | | < 20 | | | | | < 100 | | | < 20 | < 20 | < 100 | < 20 | | | | < 20 |
| Phenanthrene | | (4) | | | | < 10 | | | | | 150 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| Phenol | 5761 | · , | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| | | (4) | | | | | | | | | < 50 | | | < 10 | | < 50 | | | | | |
| Pyrene | 117 | (4) | | | | < 10 | | | | | < 50 | | | | < 10 < 10 | < 50 | < 10 < 10 | | | | < 10 < 10 |
| Pyridine | 20 | (1) | | | | < 10 | | | | | < 50 | | | < 10 | < 10 | < 50 | < 10 | | | | < 10 |
| General Chemistry (mg/L) | 4.0 | (0) | | | | 0.50 | | | T | I | 0.50 | | | 0.50 | 0.40 | 0.50 | 0.40 | 0.40 | | | 0.40 |
| Fluoride | 1.6 | (3) | | | | < 0.50 | | | | | < 0.50 | | | <0.50 | < 0.10 | < 0.50 | < 0.10 | < 0.10 | | | < 0.10 |
| Chloride | 250 | (3) | | | | 370 | | | | | 340 | | | 240 | 190 | 200 | 190 | 240 | | | 190 |
| Nitrite | 1 | (3) | | | | < 0.50 | | | | | < 0.50 | | | 0.32 J | <1.0 | < 0.50 | < 0.10 | < 0.10 | | | < 0.10 |
| Bromide | - | (-) | | | | 5 | | | | | 2.8 | | | 3.1 | 3.1 | 3.4 | < 0.10 | 1.2 | | | 3.8 |
| Nitrate | 10 | (3) | | | | < 0.50 | | | | | < 0.50 | | | 0.32 J | <1.0 | 0.26 J | 0.6 | 0.28 | | | 26 |
| Phosphorus | - | | | | | < 2.5 | | | | | 3.1 | | | < 0.50 | < 0.50 | < 2.5 | < 0.50 | < 0.50 | | | < 0.50 |
| Sulfate | 600 | (3) | | | | 7.9 | | | | | < 2.5 | | | 180 | 180 | 170 | 200 | 780 | | | 1300 |
| Carbon Dioxide (CO ₂₎ | - | | | | | 890 | | | | | 940 | | | 1100 | 1000 | 1000 | 1000 | 940 | | | 720 |
| Alkalinity (CaCO ₃) | - | | | | | 952.6 | | | | | 981.8 | | | 1050 | 1050 | 1105 | 1094 | 1035 | | | 786.2 |
| Bicarbonate (CaCO ₃) | - | | | | | 952.6 | | | | | 981.8 | | | 1050 | 1050 | 1105 | 1094 | 1035 | | | 786.2 |
| Total Metals (mg/L) | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | | | | < 0.020 | | | | | < 0.020 | | | < 0.020 | < 0.020 | < 0.050 | < 0.020 | 0.022 | | | < 0.050 |
| Barium | 2.0 | (3) | | | | 2.4 | | | | | 2.1 | | | 0.11 | 0.12 | 0.11 | 0.17 | 0.21 | | | 0.033 |
| Cadmium | 0.005 | (3) | | | | < 0.0020 | | | | | < 0.0020 | | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | | | < 0.0020 |
| Chromium | 0.05 | (3) | | | | < 0.0060 | | | | | < 0.0060 | | | < 0.0060 | < 0.0060 | | | < 0.0060 | | | 0.0031 J |
| Lead | 0.015 | (3) | | | | < 0.0050 | | | | | < 0.0050 | | | < 0.0050 | < 0.0050 | | < 0.0050 | | | | < 0.0050 |
| Selenium | 0.05 | (3) | | | | < 0.050 | | | | | < 0.050 | | | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | | | < 0.050 |
| Silver | 0.05 | (3) | | | | < 0.0050 | | | | | < 0.0050 | | | 0.0018 J | | | | | | | < 0.0050 |
| Mercury | 0.002 | (3) | | | | < 0.00020 | | | | | < 0.00020 | | | | | | | 0.00020 | | | 0.000054 |
| Dissolved Metals (mg/L) | 0.002 | (0) | | | | 10.00020 | | | | | 10.00020 | | | | 1 0.00020 | 1 0.00020 | 1 0.00020 | 7 10.00020 | | | |
| Arsenic | 0.01 | (3) | | | | < 0.020 | | | | | < 0.020 | | | 0.027 | <0.020 | 0.032 | < 0.020 | < 0.020 | | | 0.054 |
| Barium | 1.0 | (3) | | | | 2.1 | | | | | 1.9 | | | 0.073 | 0.073 | 0.083 | 0.076 | 0.055 | | | 0.023 |
| Cadmium | 0.005 | (3) | | | | < 0.0020 | | | | | < 0.0020 | | | < 0.0020 | < 0.0020 | | | | | | < 0.0020 |
| Calcium | - | (3) | | | | 110 | | | | | 120 | | | 200 | 170 | 160 | 200 | 250 | | | 230 |
| Chromium | 0.05 | (3) | | | | < 0.0060 | | | | | < 0.0060 | | | < 0.0060 | < 0.0060 | | < 0.0060 | | | | < 0.0060 |
| | | (3) | | | | 0.000 0.082 | | | | | < 0.0060 | - | | < 0.0060 | | | | | | - | 0.0060 0.0027 J |
| Copper | 1 | (3) | | | | | | | | | | | | | | | | | | | |
| Iron | 1 0.015 | (3) | | | | 28 < 0.0050 | | | | | 2.6 < 0.0050 | | | 7.6 < 0.0050 | 7.5 0.0090 | 6.9 < 0.0050 | 5.2 | 4.3 | | | 0.0048 J < 0.0050 |
| Lead | 0.015 | (3) | | | | < 0.0050 | | | | | | | | | | | | | | | |
| Magnesium | - | (0) | | | | 50 | | | | | 44 | | | 62 | 50 | 49 | 56 | 69 | | | 88 |
| Manganese | 0.2 | (3) | | | | 2.8 | | | | | 3.3 | | | 1.5 | 1.5 | 1.8 | 1.9 | 1.9 | | | 0.0011 J |
| Potassium | - | (-) | | | | 4.4 | | | | | 4.1 | | | 3.3 | 3 | 2.8 | 3.7 | 3.6 | | | 4 |
| Selenium | 0.05 | (3) | | | | < 0.050 | | | | | < 0.0050 | | | < 0.050 | 0.11 | < 0.050 | < 0.050 | < 0.050 | | | < 0.050 |
| Silver | 0.05 | (3) | | | | < 0.0050 | | | | | < 0.050 | | | | | | | < 0.0050 | | | < 0.0050 |
| Sodium | - | | | | | 460 | | | | | 410 | | | 480 | 430 | 390 | 480 | 470 | | | 660 |
| Uranium | 0.03 | (3) | | | | < 0.10 | | | | | < 0.10 | | | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | | | < 0.10 |
| Zinc | 10 | (3) | | | | 0.55 | | | | | 0.081 | | | 0.025 | <0.020 | 0.022 | 0.021 | 0.036 | | | 0.036 |
| Total Petroleum Hydrocarbons | | | | | | | | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (6) | | | | 93 | | | | | 17 | | | 0.31 J | <0.40 | 0.75 | 0.85 | 0.32 | | | < 0.20 |
| Gasoline Range Organics | 0.0101 | (6) | | | | 29 | | | | | 520 | | | 1.2 | 2.3 | 1.0 | 1.8 | 1.1 | | | < 0.050 |
| Motor Oil Range Organics | | (6) | | | | < 25 | | | | | < 250 | | | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | | | < 2.5 |

Notes:

- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018)
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remediation (February 2019)
- (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds
- (6) NMED SSG (June 2019)

| (-) | |
|-----|--|
| - | = No screening level available |
| * | = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time |
| | = Analysis not required and/or well contains separate phase |
| | = Analytical result exceeds the respective screening level. |
| | |

** = Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

TABLE 6
RCRA Wells Analytical Summary
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| No. Proceedings Proceedings Proceedings Proceedings Process Pr | | Sercening | | | | **MW-61 | | | | | MW-62 | | | | | MW-63 | | | | | MW-64 | | | | | MW-65 | | |
|--|----------------------------|-----------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|--------|-----------|--------------------|
| Winter W | | Screening | Source | Aug 10 | Aug 10 | | Aug 16 | Aug 15 | Aug 10 | Aug 10 | | Aug 16 | Aug 15 | Aug 10 | Aug 10 | | Aug 16 | Aug 15 | Aug 10 | Aug 10 | | Aug 16 | Aug 15 | Aug 10 | Aug 10 | | Aug 16 | Aug 15 |
| 11.1/2-fract-momber 1.7 10 | Volatile Organic Compounds | | | Aug-19 | Aug-16 | Aug-17 | Aug-10 | Aug-15 | Aug-19 | Aug-16 | Aug-17 | Aug-10 | Aug-15 | Aug-19 | Aug-16 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-16 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-16 | Aug-17 | Aug-16 | Aug-15 |
| 11. (Interpretation 2 | | | (4) | | | | | | -10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | <10 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | -20 | | <i>-</i> 10 | - 20 | < 20 | < 20 |
| 1.13 Framework and | | | _ ` _ | | | | | | | | | | | | | | | | | | | | | | | | < 20 | < 20 |
| 1.17-Trickmonland 1.17 | , , | | | | | | | | | | | | | | | | | | | | | | | | | _ | < 40 | < 40 |
| 1 December 15 | | | _ , | | | | | | | | | | | | | | | | | | | | | | | | < 20 | < 20 |
| 1.50 convergence 1 | 1,1-Dichloroethane | 25 | | | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | | < 10 | < 20 | < 20 | < 20 |
| Control Cont | 1,1-Dichloroethene | 7 | (3) | | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | | < 10 | < 20 | < 20 | < 20 |
| 12-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7 | 1,1-Dichloropropene | - | | | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | | < 10 | < 20 | < 20 | < 20 |
| 12-Printerpresses 155 (4) | 1,2,3-Trichlorobenzene | 7 | (1) | | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | | < 10 | < 20 | < 20 | < 20 |
| 12-2 | 1,2,3-Trichloropropane | 0.01 | (4) | | | | | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | | < 20 | < 40 | < 40 | < 40 |
| 1.2 Person Schrift of 15 | · · | | | | | | | | < 1.0 | | | | | | | | | | | | | | | | | | < 20 | < 20 |
| 12 Decomposation 150 0.55 0. | | | | | | | | | | | | | | | | | | | | | | | | | | | 480 | 860 |
| 12-Octionstantines 200 101 | | | | | | | | | | | | | | | | | | | | | | | - | | | | < 40 | < 40 |
| 12 Demonstration (ECC) 17 60 | , , , | | _ , , | | | | | | | | | | | | | | | | | | | | | | | | < 20 | < 20 |
| The Deleteropropose A 378 0 | , | | | | | | | | | | | | | | | | | | | | _ | | | | | | < 20 | < 20 |
| 1.35-Trimolphoteness 0 10 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 |
| 1.3. Decimans properties 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | < 20 | < 20 < 20 |
| 13-Debetroproposes 370 (1) | | - | (1) | | | | | | | | | | | | | | | | | | | | | | | | | < 20 |
| 1.4D-Ordentendermanner 75 20 | ., | 370 | (1) | | _ | | | | | | | | | | | | | | | | | | | | | | < 20 | < 20 |
| 14-bitelyreptrepter 1 (6) | | | _ ` _ | | | | | | | | | | | | | | | | | | _ | | | | | | < 20 | < 20 |
| 22-Discharge Conference | | | | | _ | | | | | | | | | | | | | | | | | | | | | | 130 | 120 |
| Planament September Sept | | | (0) | | | | | | | | | | | | | | | | | | | | | | | _ | < 40 | < 40 |
| 2-Chientestumen 240 (1) | , , , | | (4) | | | | | | | | | | | | | | | | | | | | | | | | < 200 | < 200 |
| 2-Heannorm | | | | | | | | | < 1.0 | | < 1.0 | | | | | | | | | | < 1.0 | | | | < 10 | | < 20 | < 20 |
| 4-Chiecosphoreme | 2-Hexanone | - | | | | | | | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | < 20 | | < 100 | < 200 | < 200 | < 200 |
| Company Comp | 2-Methylnaphthalene | 36 | (1) | | | | | | < 4.0 | < 4.0 | < 4.0 | < 4.0 | < 4.0 | < 4.0 | < 4.0 | 0.37 J | < 4.0 | < 4.0 | < 4.0 | < 4.0 | < 4.0 | < 4.0 | < 8.0 | | 12 J | 6.8 J | < 80 | < 80 |
| ## Albelly/Expensiones | 4-Chlorotoluene | 250 | (1) | | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | | < 10 | < 20 | < 20 | < 20 |
| Acctoms 14064 (4) | 4-Isopropyltoluene | - | | | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | | 12 | 11 J | < 20 | < 20 |
| Benzene 5 (0) | 4-Methyl-2-pentanone | | | | | | | | < 10 | < 10 | < 10 | | < 10 | | < 10 | | < 10 | < 10 | < 10 | < 10 | < 10 | < 10 | | | | | < 200 | < 200 |
| Bromodenmane 62 (1) < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 | | | _ ` / | | | | | | | | _ | | | | | | | | | | | | | | | | < 200 | < 200 |
| Bromode/informerhane 1.34 (4) | | | | | | | | | | | | | | | | _ | | | | | - | | | | | | 5700 | 7800 |
| Bromform 33 5 | | | | | | | | | | | | | | | | | | | | | _ | | | | | | < 20 | < 20 |
| Bromomethan 7545 (4) | | | | | | | | | | | | | | | | | | | | | | | | | | | < 20 | < 20 |
| Carbon disulfide 810 | | | _ , , | | | | | | | | | | | | | | | | | | | | | | | | | < 20 |
| Carbon Fetrachhoride 5 (2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | < 60 < 200 |
| Chicorebrane 100 (2) | | | | | | | | | | | | | | | | | | | | | | | | | | | < 200 | < 200 |
| Chlorothane 20900 (4) | | | | | | | | | | | | | | | | | | | | | | | | | | | < 20 | < 20 |
| Chlorofem 2.29 (4) | | | _ , , | | | | | | | | | | | | | | | | | | | | | | | | < 40 | < 40 |
| Chloromethenae 20.3 (4) | | | | | | | | | | | | | | | | | | | | | | | | | | - | < 20 | < 20 |
| cist_2DCE 70 (2) | | | | | | | | | | | | | | | | | | | | | | | | | | _ | < 60 | < 60 |
| Dibromochiomethane 1.88 (4) | cis-1,2-DCE | | | | | | | | | | | | | | | _ | | | | | _ | | | | | _ | < 20 | < 20 |
| Dibromochiomethane 1.88 (4) | cis-1,3-Dichloropropene | 4.7 | (4) | | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | | < 10 | < 20 | < 20 | < 20 |
| Dibromethane 8.3 (1) . | | | | | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | | < 10 | < 20 | < 20 | < 20 |
| Dichlorodifluormethane 197 (4) | Dibromomethane | 8.3 | | | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | | < 10 | < 20 | < 20 | < 20 |
| Hexachlorobutadiene 1.39 (4) < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < < 1.0 < 1.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 | Dichlorodifluoromethane | 197 | (4) | | | | | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | | < 10 | < 20 | < 20 | < 20 |
| Supproplemente 447 (4) | 3 | | | | | | | | | | | | | | | | | | | | | | | | 1800 | | 1200 | 1900 |
| Methyl tert-butyl ether (MTBE) 100 (3) 4 cm 4 cm | | | (4) | | | | | | | | | | | | | | | | | | | | | | | | < 20 | < 20 |
| Methylene Chloride 5 (2) | | | | | | | | | | | | | | | | | | | | | | | | | | | 72 | 88 |
| Naphthalene 1.65 (4) | | | | | | | | | | | | | | | | | | - | | | | | | | | | 490 | 1400 |
| n-Butylbenzene 1000 (1) | | | | | | | | | | | | | | | | | | | | | | | | | | | < 60 | < 60 |
| n-Propylbenzene 660 (1) | | | | | | | | | | | | | | | | | | | | | | | | | | | 46 | 210 |
| Sec-Butylbenzene 2000 (1) | | | | | | | | | | | | | | | | | | | | | | | | | | _ | | < 60 250 |
| Styrene 100 (2) < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1. | ., | | | | | | | | | | _ | | | | | _ | | | | | _ | | | | | _ | < 20 | < 20 |
| tert-Butylbenzene 690 (1) < 1.0 | · _ | | | | | | | | | | | | | | | | | | | | | | | | | | < 20 | < 20 |
| Tetrachloroethene (PCE) 5 (2) | | | | | | | | | | | | | | | | | | | | | _ | | | | | | < 20 | < 20 |
| Toluene 1000 (3) < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 7.6 J < 20 < 2 < | , | | | | | | | | | | | | | | | | | | | | | | | | | | < 20 | < 20 |
| trans-1,2-DCE 100 (2) < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 10 < 20 < 2 < | . , | | | | | | | | | | | | | | | | | | | | | | | | | | < 20 | < 20 |
| trans-1,3-Dichloropropene 4.71 (4) < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | < 20 | < 20 |
| Trichloroethene (TCE) 5 (2) <td></td> <th></th> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>< 20</td> <td>< 20</td> | | | | | | | | | | | | | | | | | | | | | | | | | | | < 20 | < 20 |
| Trichlorofluoromethane 1136 (4) < 1.0 | | | | | | | | | | | | | | | | | | | | | < 1.0 | | | | < 10 | | < 20 | < 20 |
| Vinyl chloride 2 (3) <-1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 < | Trichlorofluoromethane | 1136 | | | | | | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | | < 10 | < 20 | < 20 | < 20 |
| | Vinyl chloride | 2 | | | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 2.0 | | < 10 | < 20 | < 20 | < 20 |
| Xylenes, Total 620 (3) <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 <1.5 | Xylenes, Total | 620 | (3) | | | | | | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 3.0 | | 580 | 79 | 65 | 150 |

TABLE 6
RCRA Wells Analytical Summary
2019 Groundwater Remediation and Monitoring Annual Report

| | Caraanina | | | | **MW-61 | | | | | MW-62 | | | | | MW-63 | | | | | MW-64 | | | | | MW-65 | | |
|--|---------------------|--------|---------|--------|---------|------------|-------|--------|--------|--------------|--------------|--------|--------|---------|--------------|--------------|--------|--------|--------|--------------|--------------|--------|--------|--------------|--------------|--------------|--------|
| | Screening Levels | Source | Διια-19 | Δυσ-18 | | Aug-16 A | ug-15 | Aug-19 | Aug-18 | | Aug-16 | Aug-15 | Aug-19 | Διια-18 | | Δυα-16 | Aug-15 | Δυσ-19 | Aug-18 | | Aug-16 | Aug-15 | Aug-19 | Aug-18 | | Δυα-16 | Aug-15 |
| Semi-Volatile Organic Compou | | | Aug-19 | Aug-10 | Aug-17 | Aug-10 A | ug-13 | Aug-13 | Aug-10 | Aug-17 | Aug-10 | Aug-13 | Aug-13 | Aug-10 | Aug-17 | Aug-10 | Aug-13 | Aug-13 | Aug-10 | Aug-17 | Aug-10 | Aug-13 | Aug-19 | Aug-10 | Aug-17 | Aug-10 | Aug-13 |
| 1,2,4-Trichlorobenzene | 70 | (2) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| 1,2-Dichlorobenzene | 600 | (2) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| 1,3-Dichlorobenzene | - | | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| 1,4-Dichlorobenzene | 75 | (2) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| 1-Methylnaphthalene | 11 | (5) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | 100 | 100 | 14 | |
| 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol | 1166 11.9 | (4) | | | | | | | | < 10 < 10 | < 10 | | | | < 10 < 10 | < 10 < 10 | | | | < 10 < 10 | < 10 < 10 | | | < 10 < 10 | < 50 < 50 | < 10 < 10 | |
| 2,4-Dichlorophenol | 45.3 | (4) | | | | | | | | < 20 | < 10 < 20 | | | | < 20 | < 20 | | | | < 20 | < 20 | | | < 20 | < 100 | < 20 | |
| 2,4-Dimethylphenol | 354 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | 21 | < 50 | < 10 | |
| 2,4-Dinitrophenol | 38.7 | (4) | | | | | | | | < 20 | < 20 | | | | < 20 | < 20 | | | | < 20 | < 20 | | | < 20 | < 100 | < 20 | |
| 2,4-Dinitrotoluene | 2.375 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| 2,6-Dinitrotoluene | 0.485 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| 2-Chloronaphthalene | 733 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| 2-Chlorophenol | 91 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| 2-Methylnaphthalene | 36 | (1) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| 2-Methylphenol 2-Nitroaniline | 930 190 | (1) | | | | | | | | < 10 < 10 | < 10 < 10 | | | | < 10 < 10 | < 10 < 10 | | | | < 10 < 10 | < 10 < 10 | | | < 10 < 10 | < 50 < 50 | < 10 < 10 | |
| 2-Nitrophenol | - | (1) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| 3,3´-Dichlorobenzidine | 1.25 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| 3+4-Methylphenol | 930 | (1) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | 10 | < 50 | < 10 | |
| 3-Nitroaniline | - | | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| 4,6-Dinitro-2-methylphenol | 1.52 | (4) | | | | | | | | < 20 | < 20 | | | | < 20 | < 20 | | | | < 20 | < 20 | | | < 20 | < 100 | < 20 | |
| 4-Bromophenyl phenyl ether | - | | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| 4-Chloro-3-methylphenol | - | /=\ | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| 4-Chloroaniline | 3.7 | (5) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| 4-Chlorophenyl phenyl ether 4-Nitroaniline | 38 | (5) | | | | | | | | < 10 < 10 | < 10 < 10 | | | | < 10 < 10 | < 10 < 10 | | | | < 10 < 10 | < 10 < 10 | | | < 10 < 10 | < 50 < 50 | < 10 < 10 | |
| 4-Nitrophenol | - | (5) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Acenaphthene | 535 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Acenaphthylene | - | (-) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Aniline | 130 | (5) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Anthracene | 1721 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Azobenzene | 1.2 | (5) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Benzo(a)anthracene | | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Benzo(a)pyrene | 0.2 | (2) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Benzo(b)fluoranthene | 0.3432 | (4) | | | | | | | | < 10 < 10 | < 10 < 10 | | | | < 10 < 10 | < 10 < 10 | | | | < 10 < 10 | < 10 < 10 | | | < 10 < 10 | < 50 < 50 | < 10 < 10 | |
| Benzo(g,h,i)perylene Benzo(k)fluoranthene | 3.43 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Benzoic acid | 75000 | (1) | | | | | | | | 11 J | < 20 | | | | 18 J | < 20 | | | | 8.3 J | < 20 | | | < 20 | 92 J | < 20 | |
| Benzyl alcohol | 2000 | (1) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Bis(2-chloroethoxy)methane | 59 | (1) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Bis(2-chloroethyl)ether | 0.137 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Bis(2-chloroisopropyl)ether | 9.81 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Bis(2-ethylhexyl)phthalate | 6 | (2) | | | | | | | | < 10 | < 10 | | | | 4.9 J | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Butyl benzyl phthalate Carbazole | 160 | (5) | | | | | | | | < 10 < 10 | < 10 < 10 | | | | < 10 < 10 | < 10 < 10 | | | | < 10 < 10 | < 10 < 10 | | | < 10 < 10 | < 50 < 50 | < 10 < 10 | |
| Chrysene | | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 < 50 | < 10 | |
| Dibenz(a,h)anthracene | | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Dibenzofuran | - | (') | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Diethyl phthalate | 14800 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Dimethyl phthalate | - | | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Di-n-butyl phthalate | 885 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Di-n-octyl phthalate | - | 4.13 | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Fluoranthene | | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Fluorene | | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Hexachlorobenzene | | (4) | | | | | | | | < 10 < 10 | < 10 < 10 | | | | < 10 < 10 | < 10 < 10 | | | | < 10 < 10 | < 10 < 10 | | | < 10 < 10 | < 50 < 50 | < 10 < 10 | |
| Hexachlorobutadiene Hexachlorocyclopentadiene | | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 < 50 | < 10 | |
| Hexachloroethane | | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Indeno(1,2,3-cd)pyrene | | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Isophorone | | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| · ' | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | Screening | | | | **MW-61 | | | | | MW-62 | | | | | MW-63 | | | | | MW-64 | | | | | MW-65 | | |
|----------------------------------|------------|--------|--------|--------|---------|--------|--------|-----------------|-------------------|--------------------|-----------------|-----------|-----------|-------------------|-----------|---------------|------------|-------------------|---------------|-----------|---------------|---------------|--------|-------------------|------------|-----------|-----------|
| | Levels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Naphthalene | 1.65 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | 21 | 19 J | < 10 | |
| Nitrobenzene | 1.4 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| N-Nitrosodimethylamine | 0.0049 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| N-Nitrosodi-n-propylamine | 0.11 | (5) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| N-Nitrosodiphenylamine | 121.922 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Pentachlorophenol | 0.4129 | (4) | | | | | | | | < 20 | < 20 | | | | < 20 | < 20 | | | | < 20 | < 20 | | | < 20 | < 100 | < 20 | |
| Phenanthrene | 170.4146 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Phenol | 5761 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | 13 | 22 J | < 10 | |
| Pyrene | 117 | (4) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| Pyridine | 20 | (1) | | | | | | | | < 10 | < 10 | | | | < 10 | < 10 | | | | < 10 | < 10 | | | < 10 | < 50 | < 10 | |
| General Chemistry (mg/L) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fluoride | 1.6 | (3) | | | | | | <0.50 | <0.50 | < 0.10 | < 2.0 | < 0.10 | <0.50 | < 0.10 | < 0.10 | 0.16 | < 0.10 | <0.50 | <2.0 | < 0.10 | < 10 | < 0.10 | | <0.50 | < 0.10 | < 0.50 | < 0.50 |
| Chloride | 250 | (3) | | | | | | 12 | 11 | 13 | 14 | 14 | 160 | 92 | 110 | 100 | 270 | 860 | 840 | 790 | 860 | 940 | | 200 | 230 | 220 | 210 |
| Nitrite | 1 | (3) | | | | | | 0.076 J | 0.068 J | 0.016 J | < 1.0 | < 0.10 | 66 | 0.057 | 0.13 | < 0.10 | < 0.10 | 45 | < 2.0 | < 2.0 | < 10 | < 2.0 | | <0.50 | < 0.10 | < 0.50 | < 0.50 |
| Bromide | - | (5) | | | | | | <0.50 | 0.22 | 0.071 J | < 0.10 | < 0.10 | 3.2 | 1.2 | 1.8 | 1.5 | 4 | 2.4 | 2.5 | 3.5 | 5.1 | 3.4 | | 5 | 0.99 | 4.2 | 4.5 |
| Nitrate | 10 | (3) | | | | | | 0.076 J | 0.078 J | 0.094 J | < 1.0 | < 0.10 | 66 | 32 | 35 | 39 | 78 | 45 | 52 | 55 | 58 | 40 | | 0.21 J | 0.035 J | < 0.50 | < 0.50 |
| Phosphorus | - | (0) | | | | | | < 10 H | 6.7 J | < 10 | < 10 | < 10 | <2.5 H | 5.3 J | < 0.50 | < 0.50 | < 10 | <2.5 H | 5.7 J | < 0.50 | < 50 | < 10 | | 3 | < 0.50 | < 2.5 | < 2.5 |
| Sulfate | 600 | (3) | | | | | | 4000 | 3600 | 3700 | 4000 | 4000 | 2200 | 1200 | 1300 | 1200 | 1700 | 1500 | 1500 | 1500 | 1500 | 1500 | | 560 | 1400 | 1600 | 970 |
| Carbon Dioxide (CO ₂₎ | - | | | | | | | 590 H | 600 H | 580 | 500 | 520 | 600 H | 610 | 580 | 470 | 480 | 270 | 270 | 260 | 260 | 260 | | 1200 | 1100 | 860 | 1300 |
| Alkalinity (CaCO ₃) | - | | | | | | | 630.2 | 622.9 | 626.3 | 550 | 573.9 | 593.4 | 616.5 | 597 | 500.7 | 522.5 | 276.5 | 275.2 | 276.3 | 279 | 287.7 | | 1305 | 1177 | 946 | 1335 |
| Bicarbonate (CaCO ₃) | - | | | | | | | 630.2 | 622.9 | 626.3 | 550 | 573.9 | 593.4 | 616.5 | 597 | 500.7 | 522.5 | 276.5 | 275.2 | 276.3 | 279 | 287.7 | | 1305 | 1177 | 946 | 1335 |
| Total Metals (mg/L) | | | | | | | | | | • | | | | | • | • | | | | | | | | | | · | |
| Arsenic | 0.01 | (3) | | | | | | < 0.020 | < 0.020 | < 0.050 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.050 | < 0.020 | < 0.020 | <0.020 | <0.020 | <0.010 | < 0.020 | < 0.020 | | <0.020 | < 0.050 | 0.02 | < 0.020 |
| Barium | 2.0 | (3) | | | | | | 0.017 J | 0.030 | 0.033 | 0.33 | < 0.020 | 0.35 | 0.12 | 0.019 J | 0.28 | < 0.020 | 0.35 | 0.29 | 0.12 | 0.095 | 0.077 | | 0.061 | 0.058 | 0.11 | 0.21 |
| Cadmium | 0.005 | (3) | | | | | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Chromium | 0.05 | (3) | | | | | | < 0.0060 | < 0.0060 | < 0.0060 | 0.0071 | < 0.0060 | 0.0099 | 0.0048 J | < 0.0060 | 0.016 | < 0.0060 | 0.011 | 0.0097 | 0.0050 J | < 0.0060 | < 0.0060 | | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Lead | 0.015 | (3) | | | | | | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | 0.0088 | < 0.0050 | | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 |
| Selenium | 0.05 | (3) | | | | | | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Silver | 0.05 | (3) | | | | | | 0.0061 | 0.013 | < 0.0050 | < 0.0050 | < 0.0050 | 0.0027 J | 0.0064 | < 0.0050 | < 0.0050 | < 0.0050 | 0.0032 J | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | | 0.0065 | < 0.0050 | < 0.0050 | < 0.0050 |
| Mercury | 0.002 | (3) | | | | | | 0.00012 J | 0.000066 J | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | 0.00021 | 0.00012J | < 0.00020 | < 0.00020 | < 0.00020 | | 0.000075J | < 0.00020 | < 0.00020 | < 0.00020 |
| Dissolved Metals (mg/L) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | | | | | | <0.020 | <0.020 | 0.046 | | | <0.020 | <0.020 | | | < 0.020 | <0.020 | <0.020 | | < 0.020 | | | <0.020 | 0.049 | < 0.020 | |
| Barium | 1.0 | (3) | | | | | | 0.0091 J | 0.011 J | 0.01 J | < 0.020 | < 0.020 | 0.013 J | 0.011 | < 0.020 | 0.023 | < 0.020 | 0.0098 J | 0.011 J | | 0.024 | < 0.020 | | 0.12 | 0.039 | 0.045 | 0.2 |
| Cadmium | 0.005 | (3) | | | | | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | | | | | < 0.0020 | < 0.0020 | | | | | < 0.0020 | < 0.0020 | < 0.0020 | |
| Calcium | - | | | | | | | 440 | 450 | 450 | 450 | 470 | 420 | 330 | 310 | 320 | 470 | 440 | 450 | 480 | 500 | 530 | | 200 | 350 | 370 | 270 |
| Chromium | 0.05 | (3) | | | | | | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | | | | < 0.0060 | < 0.0060 | | < 0.0060 | | | < 0.0060 | < 0.0060 | < 0.0060 | |
| Copper | 1 | (3) | | | | | | 0.0023 J | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | 0.0043 J | < 0.0060 | | | | | < 0.0060 | | | | | < 0.0060 | < 0.0060 | < 0.0060 | |
| Iron | 1 | (3) | | | | | | <0.020 | 0.015 J | 0.0046 J | 1.3 | 0.15 | <0.020 | 0.054 | < 0.020 | 3.9 | < 0.020 | 0.027 | 0.057 | 0.025 | 1.8 | < 0.020 | | 5.3 | 7.1 | 6.7 | 7 |
| Lead | 0.015 | (3) | | | | | | < 0.0050 | < 0.0050 | < 0.0050 | | < 0.0050 | <0.0050 | 0.0059 | < 0.0050 | | | | | | | | | < 0.0050 | | < 0.0050 | |
| Magnesium | - | (0) | | | | | | 39 | 37 | 38 | 38 | 38 | 180 | 110 | 110 | 99 | 130 | 67 | 66 | 73 | 78 | 72 | | 95 | 120 | 110 | 97 |
| Manganese | 0.2 | (3) | | | | | | 1.4 | 1.5 | 1.8 | 1.2 | 1.4 | 0.55 | 0.48 | 0.5 | 0.73 | 0.81 | | 0.0015 J | | 0.037 | < 0.0020 | | 1.5 | 3.2 | 2.7 | 1.8 |
| Potassium | 0.05 | (2) | | | | | | 8.8 | 9 | 9.1 | 10 | 9.5 | 4.5 | 3.7 | 3.7 | 4.1 | 4.6 | 4.4 | 4.5 | 4.7 | 5.5 | 5.1 | | 3.6 | 3.8 | 4.1 | 3.6 |
| Selenium | 0.05 | (3) | | | | | | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | | < 0.050 | < 0.050 | < 0.050 | | 0.032 | < 0.050 | < 0.050 | < 0.050 |
| Silver | 0.05 | (3) | | - | | | | 0.0058 | 0.012 | < 0.0050 | | < 0.0050 | | | < 0.0050 | | < 0.0050 | | | < 0.0050 | - | < 0.0050 | | 0.0045 | 740 | < 0.0050 | |
| Sodium | 0.03 | (2) | | - | | | | 1400 | 1400 | 1400 < 0.10 | 1600 | 1500 | 540 | 380 | 460 | 420 | 580 | 780 < 0.10 | 800 < 0.10 | 830 | 830 - 0.10 | 850 < 0.10 | | 550 - 0.10 | | < 0.10 | 680 |
| Uranium Zinc | 0.03 10 | (3) | | | | | | < 0.10 0.024 | < 0.10 < 0.020 | 0.02 | < 0.10 0.051 | | | < 0.10 < 0.020 | | < 0.10 0.1 | 0.03 | | | < 0.10 | 0.038 | < 0.10 | | < 0.10 < 0.020 | | < 0.10 | |
| Total Petroleum Hydrocarbon | | (3) | | | | | | 0.024 | \U.U2U | 0.02 | 0.001 | 0.020 | 0.023 | < 0.020 | 0.02 | V.1 | 0.03 | 0.013 | < 0.020 | 0.020 | 0.030 | \ 0.020 | | <0.020 | 0.12 | < 0.020 | 0.022 |
| Diesel Range Organics | _ ` • / | (6) | | | | | | < 0.40 | < 0.40 | < 0.20 | < 0.20 | < 0.20 | < 0.40 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.40 | < 0.40 | < 0.20 | < 0.20 | < 0.20 | | 2.8 | 4.4 | 4.8 | 7.7 |
| Gasoline Range Organics | | (6) | | | | | | <0.050 | 0.023 J | < 0.20 | < 0.20 | | <0.050 | | | < 0.20 | < 0.20 | <0.40 | | < 0.20 | | | | 29 | 23 | 20 | 19 |
| Motor Oil Range Organics | 0.0858 | (6) | | | | | | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | | | | < 2.5 | < 2.5 | | | | | < 2.5 | < 2.5 | < 2.5 | < 2.5 |
| wotor on range organics | 0.0000 | (0) | | | | | | \ 2.0 | \ 2.0 | \ 2.0 | \ Z.U | \ Z.U | \ 2.0 | \ Z.U | ` 2.0 | \ 2.0 | ` \ 2.0 | ` 2.0 | \ Z.U | \ Z.U | \ 2.0 | \ 2.0 | - | \ <u>L.</u> U | \ Z.U | ` 2.0 | ` 2.0 |

Notes:

- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018)
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remediation (February 2019)
- (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds
- (6) NMED SSG (June 2019)

| (O) INVILLE | 000 (0010 2010) |
|-------------|---|
| - | = No screening level available = No screening level available |
| * | = Laboratory analyzed for combined Nitrate = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time |
| | = Analysis not required and/or well contains = Analysis not required and/or well contains separate phase |
| | = Analytical result exceeds the respective s = Analytical result exceeds the respective screening level. |
| | ., |

= Columns hidden when there are 4 or mor = Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

TABLE 6
RCRA Wells Analytical Summary
2019 Groundwater Remediation and Monitoring Annual Report

| | | I | | | | | | | | | | | | | | | | I | | | | | |
|---|----------------------|--------|--------|--------|---------|--------|--------|----------------|--------|----------------|----------------|----------------|---------------------|--------|----------------|----------------|----------------|---------|---------------------|----------------|-----------------|--------|----------------|
| | Screening | Source | | | **MW-66 | | | | | MW-67 | | | | | MW-68 | | | **MW-69 | | | MW-70 | | |
| Valatila Camania Camana da (| Levels | | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Volatile Organic Compounds (1,1,1,2-Tetrachloroethane | ug/∟) 5.74 | (4) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 1.1.1-Trichloroethane | 5 | (3) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 1,1,2,2-Tetrachloroethane | 10 | (3) | | | | | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | < 2.0 |
| 1,1,2-Trichloroethane | 5 | (3) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 1,1-Dichloroethane | 25 | (3) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 1,1-Dichloroethene | 7 | (3) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 1,1-Dichloropropene | - | | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 1,2,3-Trichlorobenzene | 7 | (1) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 1,2,3-Trichloropropane | 0.01 | (4) | | | | | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | < 2.0 |
| 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene | 11.55 56 | (4) | | | | | | < 1.0 < 1.0 | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | < 1.0 < 1.0 |
| 1,2-Dibromo-3-chloropropane | 0.2 | (2) | | | | | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | < 2.0 |
| 1,2-Dibromoethane (EDB) | 0.05 | (3) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 1,2-Dichlorobenzene | 302 | (4) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 1,2-Dichloroethane (EDC) | 1.71 | (4) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 1,2-Dichloropropane | 4.376 | (4) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 1,3,5-Trimethylbenzene | 60 | (1) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 1,3-Dichlorobenzene | - | (1) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 1,3-Dichloropropane | 370 | (1) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 1,4-Dichlorobenzene 1-Methylnaphthalene | 75 11 | (2) | | | | | | < 1.0 < 4.0 | | < 1.0 < 4.0 | < 1.0 < 4.0 | < 1.0 < 4.0 | < 1.0 < 4.0 | | < 1.0 < 4.0 | < 1.0 < 4.0 | < 1.0 < 4.0 | | < 1.0 < 4.0 | < 1.0 < 4.0 | < 1.0 < 4.0 | | < 1.0 < 4.0 |
| 2,2-Dichloropropane | - | (3) | | | | | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | < 2.0 |
| 2-Butanone | 5565 | (4) | | | | | | < 10 | | < 10 | < 10 | < 10 | < 10 | | < 10 | < 10 | < 10 | | < 10 | < 10 | < 10 | | < 10 |
| 2-Chlorotoluene | 240 | (1) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 2-Hexanone | - | ` _ | | | | | | < 10 | | < 10 | < 10 | < 10 | < 10 | | < 10 | < 10 | < 10 | | < 10 | < 10 | < 10 | | < 10 |
| 2-Methylnaphthalene | 36 | (1) | | | | | | < 4.0 | | < 4.0 | < 4.0 | < 4.0 | < 4.0 | | < 4.0 | < 4.0 | < 4.0 | | < 4.0 | < 4.0 | < 4.0 | | < 4.0 |
| 4-Chlorotoluene | 250 | (1) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 4-Isopropyltoluene | - | | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| 4-Methyl-2-pentanone | 14004 | (4) | | | | | | < 10 | | < 10 | < 10 | < 10 | < 10 | | < 10 | < 10 | < 10 | | < 10 | < 10 | < 10 | | < 10 |
| Acetone Benzene | 14064 | (4) | | | | | | <10 < 1.0 | < 1.0 | 2.9 J < 1.0 | < 10 | < 10 < 1.0 | < 10 < 1.0 | < 1.0 | 1.4 J < 1.0 | < 10 < 1.0 | < 10 < 1.0 | | < 10 < 1.0 | < 10 < 1.0 | 2.7 J < 1.0 | | < 10 < 1.0 |
| Bromobenzene | 62 | (1) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Bromodichloromethane | 1.34 | (4) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Bromoform | 33 | (5) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Bromomethane | 7.545 | (4) | | | | | | < 3.0 | | < 3.0 | < 3.0 | < 3.0 | < 3.0 | | < 3.0 | < 3.0 | < 3.0 | | < 3.0 | < 3.0 | < 3.0 | | < 3.0 |
| Carbon disulfide | 810 | (4) | | | | | | < 10 | | < 10 | < 10 | < 10 | < 10 | | < 10 | < 10 | < 10 | | < 10 | < 10 | < 10 | | < 10 |
| Carbon Tetrachloride | 5 | (2) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Chlorobenzene | 100 | (2) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Chloroethane | 20900 | (4) | | | | | | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | < 2.0 |
| Chloroform Chloromethane | 2.29 | (4) | | | | | | < 1.0 < 3.0 | | < 1.0 < 3.0 | < 1.0 < 3.0 | < 1.0 < 3.0 | < 1.0 < 3.0 | | < 1.0 < 3.0 | < 1.0 < 3.0 | < 1.0 | | < 1.0 < 3.0 | < 1.0 < 3.0 | < 1.0 < 3.0 | | < 1.0 < 3.0 |
| cis-1,2-DCE | 70 | (2) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| cis-1,3-Dichloropropene | 4.7 | (4) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Dibromochloromethane | 1.68 | (4) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Dibromomethane | 8.3 | (1) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Dichlorodifluoromethane | 197 | (4) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Ethylbenzene | 700 | (3) | | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Hexachlorobutadiene | 1.39 | (4) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Isopropylbenzene | 447 | (4) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 0.40 J | | < 1.0 |
| Methyl tert-butyl ether (MTBE) Methylene Chloride | 100 5 | (3) | | | | | | < 1.0 < 3.0 | < 1.0 | < 1.0 < 3.0 | < 3.0 | < 1.0 | 0.47 J < 3.0 | < 1.0 | < 1.0 < 3.0 | < 3.0 | < 1.0 | | 0.54 J < 3.0 | < 1.0 < 3.0 | < 3.0 | | < 1.0 < 3.0 |
| Naphthalene | 1.65 | (4) | | | | | | < 3.0 | | < 3.0 | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | < 2.0 | < 2.0 | < 2.0 | | < 2.0 |
| n-Butylbenzene | 1000 | (1) | | | | | | < 1.0 | | < 1.0 | < 3.0 | < 3.0 | < 3.0 | | < 3.0 | < 3.0 | < 3.0 | | < 3.0 | < 3.0 | < 3.0 | | < 3.0 |
| n-Propylbenzene | 660 | (1) | | | | | | < 2.0 | | < 2.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| sec-Butylbenzene | 2000 | (1) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Styrene | 100 | (2) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| tert-Butylbenzene | 690 | (1) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Tetrachloroethene (PCE) | 5 | (2) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Toluene | 1000 | (3) | | | | | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| trans-1,2-DCE trans-1,3-Dichloropropene | 100 4.71 | (2) | | | | | | < 1.0 < 1.0 | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | < 1.0 < 1.0 | < 1.0 < 1.0 | < 1.0 < 1.0 | | < 1.0 < 1.0 |
| Trichloroethene (TCE) | 5 | (4) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Trichlorofluoromethane | 1136 | (4) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Vinyl chloride | 2 | (3) | | | | | | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 | < 1.0 | < 1.0 | | < 1.0 |
| Xylenes, Total | 620 | (3) | | | | | | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | < 1.5 | | < 1.5 | < 1.5 | < 1.5 | | < 1.5 |
| Ayieries, roldi | 020 | (0) | | | | | | \ 1.0 | \ 1.J | \ 1.J | \ 1.0 | \ 1.5 | \ 1.0 | \ 1.0 | \ 1.0 | \ 1.0 | \ 1.0 | | \ 1.0 | \ 1.0 | \ 1.0 | | \ 1.0 |

TABLE 6
RCRA Wells Analytical Summary
2019 Groundwater Remediation and Monitoring Annual Report

| | Screening | | | | **MW-66 | | | | | MW-67 | | | | | MW-68 | | | **MW-69 | | | MW-70 | | |
|--------------------------------------|-----------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------------|--------|--------|--------|--------|--------------|--------|---------|--------|--------------|--------------|--------|--------|
| | Levels | Source | Aug 10 | Aug-18 | | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | | Aug-16 | Aug-15 | | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Semi-Volatile Organic Compou | | | Aug-19 | Aug-10 | Aug-1/ | Aug-16 | Aug-13 | Aug-19 | Aug-16 | Aug-17 | Aug-10 | Aug-15 | Aug-19 | Aug-16 | Aug-17 | Aug-10 | Aug-13 | Aug-19 | Aug-19 | Aug-16 | Aug-17 | Aug-16 | Aug-15 |
| 1,2,4-Trichlorobenzene | 70 | (2) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 1,2-Dichlorobenzene | 600 | (2) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 1,3-Dichlorobenzene | - | (-/ | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 1,4-Dichlorobenzene | 75 | (2) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 1-Methylnaphthalene | 11 | (5) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 2,4,5-Trichlorophenol | 1166 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 2,4,6-Trichlorophenol | 11.9 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 2,4-Dichlorophenol | 45.3 | (4) | | | | | | | | | < 20 | | | | | < 20 | | | | < 20 | < 20 | | |
| 2,4-Dimethylphenol | 354 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 2,4-Dinitrophenol | 38.7 | (4) | | | | | | | | | < 20 | | | | | < 20 | | | | < 20 | < 20 | | |
| 2,4-Dinitrotoluene | 2.375 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 2,6-Dinitrotoluene | 0.485 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 2-Chloronaphthalene | 733 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 2-Chlorophenol | 91 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 2-Methylnaphthalene | 36 | (1) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 2-Methylphenol | 930 | (1) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 2-Nitroaniline | 190 | (1) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 2-Nitrophenol 3,3´-Dichlorobenzidine | 1.25 | (4) | | | | | | | | | < 10 < 10 | | | | | < 10 < 10 | | | | < 10 | < 10 < 10 | | |
| | | (4) | | | | | | | | | | | | | | | | | | < 10 | | | |
| 3+4-Methylphenol 3-Nitroaniline | 930 | (1) | | | | | | | | | < 10 < 10 | | | | | < 10 < 10 | | | | < 10 < 10 | < 10 < 10 | | |
| 4,6-Dinitro-2-methylphenol | 1.52 | (4) | | | | | | | | | < 20 | | | | | < 20 | | | | < 20 | < 20 | | |
| 4-Bromophenyl phenyl ether | - | (+) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 4-Chloro-3-methylphenol | - | | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 4-Chloroaniline | 3.7 | (5) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 4-Chlorophenyl phenyl ether | - | (0) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 4-Nitroaniline | 38 | (5) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| 4-Nitrophenol | - | (0) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Acenaphthene | 535 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Acenaphthylene | - | | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Aniline | 130 | (5) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Anthracene | 1721 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Azobenzene | 1.2 | (5) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Benzo(a)anthracene | 0.1199 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Benzo(a)pyrene | 0.2 | (2) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Benzo(b)fluoranthene | 0.3432 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Benzo(g,h,i)perylene | - | | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Benzo(k)fluoranthene | 3.43 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Benzoic acid | 75000 | (1) | | | | | | | | | < 20 | | | | | < 20 | | | | 6.7 J | 6.7 J | | |
| Benzyl alcohol | 2000 | (1) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Bis(2-chloroethoxy)methane | 59 | (1) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Bis(2-chloroethyl)ether | 0.137 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Bis(2-chloroisopropyl)ether | 9.81 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Bis(2-ethylhexyl)phthalate | 6 | (2) | | | | | | | | | < 10 | | | | | < 10 < 10 | | | | < 10 < 10 | < 10 < 10 | | |
| Butyl benzyl phthalate Carbazole | 160 | (5) | | | | | | | | | < 10 < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Chrysene | | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Dibenz(a,h)anthracene | 0.0343 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Dibenzofuran | - | (-7) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Diethyl phthalate | 14800 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Dimethyl phthalate | - | (') | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Di-n-butyl phthalate | 885 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Di-n-octyl phthalate | - | (·) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Fluoranthene | 802 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Fluorene | 288 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Hexachlorobenzene | 0.0976 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Hexachlorobutadiene | 1.387 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Hexachlorocyclopentadiene | 0.411 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Hexachloroethane | 3.2842 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Indeno(1,2,3-cd)pyrene | 0.3432 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Isophorone | 781 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| | | . , | - | | | | | | | | - | | | | | - | | | | | - | | |

| | Screening | | | | **MW-66 | | | | | MW-67 | | | | | MW-68 | | | **MW-69 | | | MW-70 | | |
|----------------------------------|-----------|--------|--------|--------|---------|--------|--------|----------------------|-----------|-----------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------|----------------------|----------------------|----------------------|--------|----------------------|
| | Levels | Source | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 | Aug-19 | Aug-19 | Aug-18 | Aug-17 | Aug-16 | Aug-15 |
| Naphthalene | 1.65 | (4) | Aug-19 | | Aug-17 | | | Aug-19 | | Aug-17 | < 10 | Aug-15 | Aug-19 | | | < 10 | Aug-15 | Aug-19 | Aug-19 | < 10 | < 10 | Aug-16 | Aug-15 |
| Nitrobenzene | 1.4 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| N-Nitrosodimethylamine | 0.0049 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| N-Nitrosodi-n-propylamine | 0.11 | (5) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| N-Nitrosodiphenylamine | 121.922 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Pentachlorophenol | 0.4129 | (4) | | | | | | | | | < 20 | | | | | < 20 | | | | < 20 | < 20 | | |
| Phenanthrene | 170.4146 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Phenol | 5761 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Pyrene | 117 | (4) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| Pyridine | 20 | (1) | | | | | | | | | < 10 | | | | | < 10 | | | | < 10 | < 10 | | |
| General Chemistry (mg/L) | | (-/ | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoride | 1.6 | (3) | | | | | | 0.52 | 0.62 | 0.87 | < 0.10 | 0.62 | 0.24 J | 0.27 | 0.26 | 0.41 | 0.35 | | 0.26 J | <0.50 | 0.45 J | | 0.7 |
| Chloride | 250 | (3) | | | | | | 17 | 14 | 12 | 12 | 14 | 50 | 60 | 52 | 38 | 42 | | 340 | 280 | 330 | | 420 |
| Nitrite | 1 | (3) | | | | | | 3.8 | 8.6 | < 0.10 | < 0.10 | < 0.10 | 6.8 | 4.5 | < 0.10 | < 0.10 | < 0.10 | | 0.33 | < 0.50 | < 0.50 | | < 0.50 |
| Bromide | - | (-/ | | | | | | <0.50 | 0.16 | 0.15 | 0.16 | 0.13 | <0.50 | 0.23 | 0.22 | 0.21 | 0.23 | | 1.6 | 1.6 | 1.7 | | 2.4 |
| Nitrate | 10 | (3) | | | | | | 3.8 | 8.6 | 13 | 9.9 | 13 | 6.8 | 4.5 | 7.6 | 5.6 | 7.6 | | 0.33 | 0.23 | < 0.50 | | < 0.50 |
| Phosphorus | - | (-/ | | | | | | <2.5 H | < 0.50 | < 0.50 | < 0.50 | < 0.50 | <2.5 H | < 0.50 | < 0.50 | < 0.50 | < 0.50 | | < 2.5 H | < 2.5 | < 2.5 | | < 2.5 |
| Sulfate | 600 | (3) | | | | | | 260 | 240 | 180 | 270 | 240 | 260 | 200 | 250 | 260 | 280 | | 2100 | 1900 | 1900 | | 2400 |
| Carbon Dioxide (CO ₂₎ | - | (-) | | | | | | 340 | 330 | 320 | 290 | 310 | 220 | 250 | 220 | 210 | 180 | | 790 | 790 | 830 | | 780 |
| Alkalinity (CaCO ₃) | _ | | | | | | | 351.6 | 351.6 | 345.5 | 314.7 | 342.5 | 238.3 | 264.4 | 236.7 | 236.3 | 200.2 | | 785.4 | 811.5 | 804.5 | | 809.4 |
| * 1 | | | | | | | | | | | | | | _ | | | | | | | | | |
| Bicarbonate (CaCO ₃) | - | | | | | | | 351.6 | 351.6 | 345.5 | 314.7 | 342.5 | 238.3 | 264.4 | 236.7 | 236.3 | 200.2 | | 785.4 | 811.5 | 804.5 | | 809.4 |
| Total Metals (mg/L) | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | 0.01 | (3) | | | | | | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.050 | < 0.020 | < 0.020 | | <0.020 | <0.020 | < 0.25 | | < 0.020 |
| Barium | 2.0 | (3) | | | | | | 0.057 | 0.081 | 0.05 | 0.23 | 0.12 | 0.15 | 0.038 | 0.053 | 0.28 | 0.038 | | 0.15 | 0.23 | 0.19 | | 0.023 |
| Cadmium | 0.005 | (3) | | | | | | < 0.0020 | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | | < 0.0020 | < 0.0020 | < 0.0020 | | < 0.0020 | < 0.0020 | < 0.0020 | | < 0.0020 |
| Chromium | 0.05 | (3) | | | | | | < 0.0060 | | | 0.0089 | < 0.0060 | 0.0049 J | | | 0.012 | < 0.0060 | | <0.0060 | 0.011 | 0.0086 | | < 0.0060 |
| Lead | 0.015 | (3) | | | | | | 0.0045 J | | | 0.005 | < 0.0050 | < 0.0050 | | < 0.0050 | < 0.0050 | < 0.0050 | | < 0.0050 | < 0.0050 | < 0.0050 | | < 0.0050 |
| Selenium | 0.05 | (3) | | | | | | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | | < 0.050 | < 0.050 | < 0.050 | | < 0.050 |
| Silver | 0.05 | (3) | | | | | | | | < 0.0050 | | < 0.0050 | | < 0.0050 | | | < 0.0050 | | 0.0051 | 0.0044 J | | | < 0.0050 |
| Mercury | 0.002 | (3) | | | | | | 0.00013 J | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | 0.00015 J | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | | 0.00012 J | 0.00010 J | < 0.00020 | | < 0.00020 |
| Dissolved Metals (mg/L) | 0.04 | (0) | | | | 1 | ı | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | | 0.000 |
| Arsenic | 0.01 | (3) | | | | | | < 0.020 | < 0.020 | 0.022 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | | <0.020 | <0.020 | 0.028 | | < 0.020 |
| Barium | 1.0 | (3) | | | | | | 0.032 | 0.026 | 0.031 | 0.043 | 0.039 | 0.019 J | 0.027 | 0.023 | 0.029 | 0.022 | | 0.013 J | 0.014 J | 0.016 J | | 0.024 |
| Cadmium | 0.005 | (3) | | | | | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | | < 0.0020 | < 0.0020 | < 0.0020 | | < 0.0020 | < 0.0020 | | | < 0.0020 |
| Calcium | - | (2) | | | | | | 160 | 130 | 130 | 140 | 150 | 100 | 130 | 100 | 90 | 93 | | 610 | 560 | 620 | | 640 |
| Chromium Copper | 0.05 | (3) | | | | | | < 0.0060 < 0.0060 | | | < 0.0060 < 0.0060 | < 0.0060 < 0.0060 | < 0.0060 < 0.0060 | < 0.0060 < 0.0060 | < 0.0060 < 0.0060 | < 0.0060 < 0.0060 | < 0.0060 < 0.0060 | | < 0.0060 0.0037 J | < 0.0060 < 0.0060 | < 0.0060 < 0.0060 | | < 0.0060 < 0.0060 |
| Iron | 1 | (3) | | | | | | < 0.0060 | < 0.0000 | < 0.020 | 0.000 | < 0.0000 | < 0.0000 | < 0.0000 | < 0.0000 | 0.0060 | < 0.0000 | | 5.3 | 9.6 | 25 | | 8.5 |
| Lead | 0.015 | (3) | | | | | | < 0.020 | < 0.020 | | < 0.0050 | < 0.020 | < 0.020 | | < 0.020 | < 0.0050 | < 0.020 | | < 0.0050 | < 0.0050 | < 0.0050 | | < 0.0050 |
| Magnesium | - | (3) | | | | | | 31 | 27 | 27 | 28 | 31 | 28 | 27 | 25 | 21 | 24 | | 150 | 110 | 130 | | 180 |
| Manganese | 0.2 | (3) | | | | | | 0.15 | 0.16 | 0.14 | 0.4 | 0.38 | 0.00059 J | | 0.0028 | 0.06 | 0.0045 | | 1.6 | 1.8 | 2.3 | | 4.3 |
| Potassium | - | (3) | | | | | | 3.8 | 2.8 | 3.8 | 3.4 | 3 | 2.7 | 2.8 | 3.0 | 2.7 | 2.6 | | 3.5 | 4.0 | 3.5 | | 4.2 |
| Selenium | 0.05 | (3) | | | | | | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | | < 0.050 | < 0.050 | < 0.050 | | < 0.050 |
| Silver | 0.05 | (3) | | | | | | | | < 0.0050 | | | | < 0.0050 | | | | | 0.0071 | 0.015 | < 0.0050 | | < 0.0050 |
| Sodium | - | (3) | | | | | | 72 | 80 | 68 | 79 | 74 | 100 | 120 | 110 | 110 | 110 | | 610 | 530 | 580 | | 730 |
| Uranium | 0.03 | (3) | | | | | | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | | < 0.10 | < 0.10 | < 0.10 | | < 0.10 | < 0.10 | < 0.10 | | < 0.10 |
| Zinc | 10 | (3) | | | | | | 0.044 | < 0.020 | | < 0.020 | 0.025 | | <0.020 | 0.026 | < 0.020 | | | 0.017 J | | | | 0.028 |
| Total Petroleum Hydrocarbons | | (3) | | | | | | 5.311 | 10.020 | | . 0.020 | 3.320 | | 10.020 | | 1 0.020 | 3.321 | | 3.5 | 10.020 | J.J. 1 | | - 5.520 |
| Diesel Range Organics | 0.0167 | (6) | | | | | | < 0.40 | < 0.40 | < 0.20 | 0.64 | 0.21 | < 0.40 | < 0.40 | < 0.20 | < 0.20 | < 0.20 | | < 0.40 | < 0.40 | < 0.20 | | < 0.20 |
| Gasoline Range Organics | 0.0101 | (6) | | | | | | | < 0.050 | | < 0.050 | < 0.050 | | < 0.050 | < 0.050 | < 0.050 | | | <0.050 | 0.034 J | | | < 0.050 |
| Motor Oil Range Organics | 0.0858 | (6) | | | | | | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | <2.5 | <2.5 | <2.5 | < 2.5 | < 2.5 | | < 2.5 | < 2.5 | < 2.5 | | < 2.5 |
| motor on runge organics | 0.0000 | (0) | | | | | | 1 12.0 | ` 2.0 | ` 2.0 | ` 2.0 | ` 2.0 | `~0 | \U | ~L.U | ` 2.0 | ` 2.0 | | ` 2.0 | ` 2.0 | ` 2.0 | | _ ` 2.0 |

- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018)
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remediation (February 2019)
- (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds
- (6) NMED SSG (June 2019)
- = No screening level available = No screening level available
- * = Laboratory analyzed for combined Nitrate = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time
- --- = Analysis not required and/or well contains = Analysis not required and/or well contains separate phase
- = Analytical result exceeds the respective s = Analytical result exceeds the respective screening level.
- ** = Columns hidden when there are 4 or more = Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

TABLE 7
Collection and Observation Wells Analytical Summary
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| Constituents | 6 | | | | | | CW | 0+60 | | | | | | | | | CW 2 | 5+95 | | | | |
|---------------------------------|-----------|------|----------|--------|----------|--------|--------|----------|----------|----------|----------|---------|-----------|----------|-----------|----------|----------|----------|---------|---------|----------|--------|
| Constituents | 3 | | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compour | nds (mg/l | L) | | | | | | | | | | | | | | | | | | | | |
| Benzene | 0.005 | (1) | 0.001 J | 0.0021 | 0.0007 J | 0.0012 | < 1.0 | < 0.001 | <0.001 | 0.0025 | 0.0012 | 0.0016 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | 0.0071 | 0.0039 | 0.110 | 0.210 |
| Toluene | 1.000 | (1) | <0.001 | <0.001 | <0.001 | <0.001 | < 1.0 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.005 | <0.001 | < 0.005 | <0.050 |
| Ethylbenzene | 0.700 | (1) | 0.0041 | 0.004 | 0.0018 | 0.0037 | 0.0035 | 0.0031 | 0.0018 | 0.0023 | < 0.001 | 0.0017 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.005 | <0.001 | < 0.005 | <0.050 |
| Xylene | 0.620 | (1) | 0.0013 J | 0.0018 | <0.0015 | 0.0015 | < 1.5 | < 0.0015 | < 0.0015 | < 0.0015 | < 0.0015 | <0.0015 | < 0.0015 | < 0.0015 | < 0.0015 | < 0.0015 | < 0.0015 | < 0.0015 | <0.0075 | <0.0015 | < 0.0075 | <0.075 |
| MTBE | 0.100 | (1) | 0.0011 | 0.0012 | <0.001 | <0.001 | < 1.0 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.001 | 0.00067 J | < 0.001 | 0.00089 J | < 0.001 | < 0.001 | < 0.001 | < 0.005 | <0.001 | < 0.005 | <0.050 |
| Total Petroleum Hydrocar | bons (mo | g/L) | | | | | | | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (2) | 0.70 | 1.7 | 0.33 J | 1.2 | 1.2 | 1.4 | 0.83 | 0.73 | 1.7 | 1.4 | <0.40 | <0.40 | <0.40 | <0.40 | < 0.20 | <0.20 | <0.20 | <0.20 | 1.3 | <0.20 |
| Gasoline Range Organics | 0.0101 | (2) | | 3.1 | | | 3.2 | | | | 0.51 | 2.7 | | 0.36 | 0.44 | | 0.18 | | | | 1.7 | 0.88 |
| Motor Oil Range Organics | 0.0858 | (2) | <2.5 | <2.5 | <2.5 | < 2.5 | < 2.5 | <2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | <2.5 | <2.5 | <2.5 | <2.5 | < 2.5 | <2.5 | < 2.5 | < 2.5 | 3.1 | < 2.5 |
| | | | | | | | | | | | | | | | | | | | | · | | |

| Constituents | | | | | OW | 0+60 | | | | | | | | | OW 1 | 4+10 | | | | |
|-------------------------------------|--------|--------|--------|--------|--------|----------|----------|--------|----------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Constituents | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compounds (mg/L) | | | | | | | | | | | | | | | | | | | | |
| Benzene 0.005 (1) | | | | | | 0.00007J | < 0.001 | | < 0.001 | <0.001 | | | | | | | | | | |
| Toluene 1.000 (1) | | | | | | 0.00043J | < 0.001 | | < 0.001 | < 0.001 | | | | | | | | | | |
| Ethylbenzene 0.700 (1) | | | | | | 0.00058J | < 0.001 | | < 0.001 | < 0.001 | | | | | | | | | | |
| Xylene 0.620 (1) | | | | | | 0.0025 | < 0.0015 | | < 0.0015 | <0.0015 | | | | | | | | | | |
| MTBE 0.100 (1) | | | | | | < 0.001 | < 0.001 | | < 0.001 | < 0.001 | | | | | | | | | | |
| Total Petroleum Hydrocarbons (mg/L) | | | | | | | | | | | | | | | | | | | | |
| Diesel Range Organics 0.0167 (2) | | | | | | 13 | 1.3 | | 1.7 | 3.2 | | | | | | | | | | |
| Gasoline Range Organics 0.0101 (2) | | | | | | 2.1 | 0.7 | | 0.38 | 0.3 | | | | | | | | | | |
| Motor Oil Range Organics 0.0858 (2) | | | | | | < 5 | < 2.5 | | < 2.5 | < 2.5 | | | | | | | | | | |

| Constituent | | | | | | | OW | 1+50 | | | | | | | | | OW ² | 16+60 | | | | |
|--------------------------|----------|------|--------|--------|--------|--------|--------|---------|----------|---------|--------|--------|--------|--------|--------|--------|-----------------|-----------|---------|---------|----------|---------|
| Constituent | 3 | | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compou | nds (mg/ | L) | | | | | | | | | | | | | | | | | | | | |
| Benzene | 0.005 | (1) | | | | | | < 0.001 | < 0.001 | <0.005 | | | | | | | | 0.000084J | <0.010 | <0.010 | < 0.001 | <0.00 5 |
| Toluene | 1.000 | (1) | | | | | | < 0.001 | < 0.001 | <0.005 | | | | | | | | < 0.001 | <0.010 | <0.010 | < 0.001 | <0.010 |
| Ethylbenzene | 0.700 | (1) | | | | | | < 0.001 | < 0.001 | <0.005 | | | | | | | | 0.0011 | <0.010 | <0.010 | 0.0017 | <0.010 |
| Xylene | 0.620 | (1) | | | | | | 0.0025 | < 0.0015 | <0.0075 | | | | | | | | 0.00048J | <0.0 15 | <0.0 15 | < 0.0015 | <0.0 15 |
| MTBE | 0.100 | (1) | | | | | | < 0.001 | < 0.001 | <0.005 | | | | | | | | 0.39 | 0.41 | 0.28 | 0.41 | 0.460 |
| Total Petroleum Hydrocar | rbons (m | g/L) | | | | | | | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (2) | | | | | | 13 | 4.2 | 2.5 | | | | | | | | 86 | 3.8 | 28.0 | 5.0 | 12 |
| Gasoline Range Organics | 0.0101 | (2) | | | | | | 2.1 | 2.9 | 3.2 | | | | | | | | 1.5 | 1.5 | 1.8 | 1.00 | 1.8 |
| Motor Oil Range Organics | 0.0858 | (2) | | | | | | < 5 | < 2.5 | <2.5 | | | | | | | | <5 | <2.5 | <2.5 | < 2.5 | < 2.5 |

TABLE 7
Collection and Observation Wells Analytical Summary
2019 Groundwater Remediation and Monitoring Annual Report

| Constituents | • | | | | | | OW | 3+85 | | | | | | | | | OW 1 | 9+50 | | | | |
|---------------------------------|-----------|------|--------|--------|--------|---------|--------|----------|---------|---------|---------|--------|----------|----------|--------|--------|--------|----------|--------|--------|--------|--------|
| Constituents | 3 | | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compour | nds (mg/l | _) | | | | | | | | | | | | | | | | | | | | |
| Benzene | 0.005 | (1) | | | | < 0.001 | | < 0.001 | <0.010 | <0.010 | < 0.001 | | < 0.001 | < 0.001 | | | | < 0.001 | | | | |
| Toluene | 1.000 | (1) | | | | < 0.001 | | < 0.001 | <0.010 | <0.010 | < 0.001 | | < 0.001 | < 0.001 | | | | < 0.001 | | | | |
| Ethylbenzene | 0.700 | (1) | | | | < 0.001 | | 0.00067J | 0.011 | 0.011 | < 0.001 | | < 0.001 | < 0.001 | | | | < 0.001 | | | | |
| Xylene | 0.620 | (1) | | | | < 0.015 | | < 0.0015 | <0.0015 | <0.0015 | < 0.015 | | < 0.0015 | < 0.0015 | | | | < 0.0015 | | | | |
| MTBE | 0.100 | (1) | | | | < 0.001 | | < 0.001 | <0.010 | <0.010 | < 0.001 | | 0.0051 | 0.130 | | | | 0.0025 | | | | |
| Total Petroleum Hydrocar | bons (mo | g/L) | | | | | | | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (2) | | | | 7.9 | | 75 | 9 | 56 | 12.0 | | 0.19 J | <0.40 | | | | 7.9 | | | | |
| Gasoline Range Organics | 0.0101 | (2) | | | | <2.5 | | 4.2 | 3.1 | 14 | 4.7 | | <2.5 | 0.077 | | | | < 0.050 | | | | |
| Motor Oil Range Organics | 0.0858 | (2) | | | | 3.7 | | 7.2 | <2.5 | <25 | < 2.5 | | <0.050 | <2.5 | | | | <5 | | | | |

| Constituents | e | | | | | | OW | 5+50 | | | | | | | | | OW 2 | 22+00 | | | | |
|---------------------------------|----------|------|--------|--------|--------|--------|--------|----------|--------|--------|--------|--------|----------|----------|--------|----------|----------|----------|----------|----------|----------|---------|
| Constituents | 3 | | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compour | nds (mg/ | L) | | | | | | | | | | | | | | | | | | | | |
| Benzene | 0.005 | (1) | | | | | | < 0.001 | | | | | < 0.001 | < 0.001 | | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.001 |
| Toluene | 1.000 | (1) | | | | | | < 0.001 | | | | | < 0.001 | < 0.001 | | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.001 |
| Ethylbenzene | 0.700 | (1) | | | | | | < 0.001 | | | | | < 0.001 | < 0.001 | | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.001 |
| Xylene | 0.620 | (1) | | | | | | < 0.0015 | | | | | < 0.0015 | < 0.0015 | | < 0.0015 | < 0.0015 | < 0.0015 | < 0.0015 | < 0.0015 | < 0.0015 | <0.0015 |
| MTBE | 0.100 | (1) | | | | | | 0.00039J | | | | | 0.0012 | < 0.001 | | 0.0059 | 0.0057 | 0.00029J | < 0.001 | 0.018 | < 0.001 | <0.001 |
| Total Petroleum Hydrocar | bons (m | g/L) | | | | | | | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (2) | | | | | | 370 | | | | | <0.40 | <0.40 | | < 0.40 | < 0.20 | 3.1 | < 0.20 | < 0.20 | < 0.20 | 0.24 |
| Gasoline Range Organics | 0.0101 | (2) | | | | | | 0.12 | | | | | <0.05 | <0.05 | | <0.05 | <0.05 | < 0.050 | <0.05 | < 0.05 | < 0.05 | < 0.050 |
| Motor Oil Range Organics | 0.0858 | (2) | | | | | | 70 | | | | | <2.5 | <2.5 | | <2.5 | <2.5 | <5 | <2.5 | <2.5 | < 2.5 | < 2.5 |

| Constituent | | | | | | | OW | 6+70 | | | | | | | | | OW 2 | 23+10 | | | | |
|---------------------------------|----------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|--------|--------|----------|----------|----------|----------|---------|
| Constituent | .5 | | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compour | nds (mg/ | L) | | | | | | | | | | | | | | | | | | | | |
| Benzene | 0.005 | (1) | | | | | | | | | | | | | < 0.001 | | | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.001 |
| Toluene | 1.000 | (1) | | | | | | | | | | | | | < 0.001 | | | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.001 |
| Ethylbenzene | 0.700 | (1) | | | | | | | | | | | | | < 0.001 | | | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.001 |
| Xylene | 0.620 | (1) | | | | | | | | | | | | | < 0.0015 | | | < 0.0015 | < 0.0015 | < 0.0015 | < 0.0015 | <0.0015 |
| MTBE | 0.100 | (1) | | | | | | | | | | | | | 0.00045 J | | | 0.0014 | < 0.001 | 0.012 | < 0.001 | <0.001 |
| Total Petroleum Hydrocar | rbons (m | g/L) | | | | | | | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (2) | | | | | | | | | | | | | <0.40 | | | 1.8 | 0.27 | < 0.20 | 0.52 | < 0.20 |
| Gasoline Range Organics | 0.0101 | (2) | | | | | | | | | | | | | 0.12 | | | 0.084 | <0.05 | < 0.05 | < 0.05 | < 0.050 |
| Motor Oil Range Organics | 0.0858 | (2) | | | | | | | | | | | | | <2.5 | | | <5 | <2.5 | <2.5 | < 2.5 | < 2.5 |

TABLE 7 Collection and Observation Wells Analytical Summary 2019 Groundwater Remediation and Monitoring Annual Report

| Constituent | e | | | | | | OW | 8+10 | | | | | | | | | OW 2 | 23+90 | | | | |
|----------------------------------|----------|------|----------|----------|--------|--------|----------|----------|----------|--------|--------|--------|----------|----------|--------|--------|--------|----------|----------|----------|----------|---------|
| Constituent | 3 | | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compount | nds (mg/ | L) | | | | | | | | | | | | | | | | | | | | |
| Benzene | 0.005 | (1) | < 0.001 | < 0.001 | | | < 0.001 | < 0.001 | < 0.001 | | | | < 0.001 | < 0.001 | | | | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.001 |
| Toluene | 1.000 | (1) | < 0.001 | < 0.001 | | | < 0.001 | < 0.001 | < 0.001 | | | | < 0.001 | < 0.001 | | | | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.001 |
| Ethylbenzene | 0.700 | (1) | < 0.001 | < 0.001 | | | < 0.001 | < 0.001 | < 0.001 | | | | < 0.001 | < 0.001 | | | | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.001 |
| Xylene | 0.620 | (1) | < 0.0015 | < 0.0015 | | | < 0.0015 | < 0.0015 | < 0.0015 | | | | < 0.0015 | < 0.0015 | | | | < 0.0015 | < 0.0015 | < 0.0015 | < 0.0015 | <0.0015 |
| MTBE | 0.100 | (1) | 0.0016 | 0.0054 | | | 0.0012 | 0.0018 | 0.0047 | | | | < 0.001 | < 0.001 | | | | 0.0004J | < 0.001 | < 0.001 | < 0.001 | <0.001 |
| Total Petroleum Hydrocar | rbons (m | g/L) | | | | | | | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (2) | < 0.40 | 0.44 | | | 0.22 | 5.7 | < 0.20 | | | | | | | | | 1.4 | < 0.20 | < 0.20 | < 0.20 | < 0.20 |
| Gasoline Range Organics | 0.0101 | (2) | < 0.050 | <0.05 | | | < 0.05 | <0.05 | <0.05 | | | | 0.027 J | | | | | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Motor Oil Range Organics | 0.0858 | (2) | <2.5 | <2.5 | | | <5 | <5 | <2.5 | | | | | | | | | <5 | <2.5 | <2.5 | < 2.5 | < 2.5 |

| Constituent | _ | | | | | | OW 1 | 11+15 | | | | | | | | | OW 2 | 5+70 | | | | |
|--------------------------|----------|------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|---------|----------|----------|---------|
| Constituent | S | | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compou | nds (mg/ | L) | | | | | | | | | | | | | • | | | | | | | |
| Benzene | 0.005 | (1) | | | | | | 4.4 | 3.9 | 3.8 | 2.5 | 1.7 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.001 |
| Toluene | 1.000 | (1) | | | | | | 0.0014J | < 0.020 | < 0.020 | < 0.020 | < 0.050 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.001 |
| Ethylbenzene | 0.700 | (1) | | | | | | 0.0096J | < 0.020 | < 0.020 | < 0.020 | < 0.050 | < 0.001 | 0.0013 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | <0.001 |
| Xylene | 0.620 | (1) | | | | | | < 0.030 | < 0.030 | < 0.030 | < 0.030 | < 0.075 | 0.49 J | < 0.0015 | < 0.0015 | < 0.0015 | < 0.0015 | < 0.0015 | 0.0026 | < 0.0015 | < 0.0015 | <0.0015 |
| MTBE | 0.100 | (1) | | | | | | 0.32 | 0.31 | 0.22 | 0.48 | 0.64 | < 0.001 | < 0.001 | 0.0004 J | < 0.001 | 0.0014 | 0.0027 | < 0.001 | < 0.001 | < 0.001 | <0.001 |
| Total Petroleum Hydrocai | rbons (m | g/L) | | | | | | | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (2) | | | | | | 120 | 540 | 110 | 54 | 94 | <0.40 | <0.40 | <0.40 | < 0.40 | < 0.20 | < 1.0 | < 0.20 | < 0.20 | < 0.20 | < 0.20 |
| Gasoline Range Organics | 0.0101 | (2) | | | | | | 13 | 12 | 14 | 4.5 | 0.3 | 0.052 | 0.12 | 0.14 | 0.10 | 0.091 | 0.10 | 0.078 | 0.13 | < 0.05 | 0.12 |
| Motor Oil Range Organics | 0.0858 | (2) | | | | | | <50 | <25 | <25 | < 25 | < 25 | <2.5 | <2.5 | <2.5 | < 2.5 | < 2.5 | <5 | <2.5 | <2.5 | < 2.5 | < 2.5 |

Notes:

(1) NMED WQCC standards - Title 20 Chapter 6, Part 2, - 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018)

(2) NMED SSG (June 2019)

- = No screening level available

* = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time

--- = Analysis not required and/or well contains separate phase

= Analytical result exceeds the respective screening level.

= Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

TABLE 8
Outfalls Analytical Summary
2019 Groundwater Remediation and Monitoring Annual Report

| Comptitue | .4- | | | | | E | ast Outfall # | #2 | | | | | | | | East O | utfall #3 | | | | |
|-----------------------------------|----------|------|-----------|-----------|------------|-----------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Constituen | its | | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | May-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | May-16 | Aug-15 | Apr-15 |
| Volatile Organic Compo | ounds (m | g/L) | | | | | | | | | | | | | | | | | | | |
| Benzene | 0.005 | (3) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Toluene | 1.000 | (3) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Ethylbenzene | 0.700 | (3) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Xylene | 0.620 | (3) | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 |
| MTBE | 0.100 | (3) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| General Chemistry (mg/ | /L) | | | | | | | | | | | | | | | | | | | | |
| Fluoride | 1.6 | (3) | 0.48 J | <0.50 | 0.43 | | 0.42 | 0.46 | 0.18 | 0.17 | 0.52 | 0.35 | <0.50 | 0.16 | | 0.18 | 0.23 | 0.19 | 0.18 | 0.18 | 0.22 |
| Chloride | 250 | (3) | 12 | 15 | 4.4 | | 9.5 | 8.4 | 3.4 | 2.7 | 8.6 | 14 | 14 | 3.1 | | 4.1 | 18 | 3.4 | 3.8 | 3.6 | 4.4 |
| Nitrite | 1 | (3) | 1.5 | <0.50 | <1.0 | | 1.6 | 1.4 | < 0.10 | < 0.10 | 0.13 | 1.6 | <0.50 | 0.48 J | | 0.59 J | 2.4 | < 1.0 | < 0.10 | < 0.10 | < 0.10 |
| Bromide | - | - | <0.50 | <0.50 | 0.074 J | | 0.13 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.12 | <0.50 | 0.041 J | | 0.036 J | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Nitrate | 10 | (3) | 1.5 | 3.5 | <1.0 | | 1.6 | 1.4 | 0.17 | 0.54 | 0.71 | 1.6 | 3.3 | 0.48 J | | 0.59 J | 2.4 | < 1.0 | 0.22 | 0.47 | 0.21 |
| Phosphorus | - | - | <2.5 H | <2.5 | 0.64 H | | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | <0.50 H | <2.5 | 0.33 JH | | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Sulfate | 600 | (3) | 220 | 250 | 58 | | 190 | 89 | 45 | 42 | 88 | 190 | 250 | 44 | | 51 | 120 | 48 | 44 | 47 | 54 |
| Carbon Dioxide (CO ₂) | - | - | 300 H | 310 | 210 | 330 | 310 | 320 | 90 | 78 | - | 290 | 300 | 86 | 300 | 110 | 240 | 84 | 87 | 85 | - |
| Alkalinity (CaCO ₃) | | _ | 333.2 | 323 | 233.9 | 354.6 | 343.7 | 343.1 | 97.96 | 85.24 | 344.8 | 324.4 | 318.1 | 93.12 | 319.9 | 126.5 | 253.5 | 94 | 95.28 | 95.16 | 111 |
| Bicarbonate (CaCO ₃) | | _ | 333.2 | 323 | 233.9 | 354.6 | 343.7 | 343.1 | 97.96 | 85.24 | 344.8 | 324.4 | 318.1 | 93.12 | 319.9 | 126.5 | 253.5 | 94 | 95.28 | 95.16 | 111 |
| Total Metals (mg/L) | | - | 333.2 | 323 | 233.3 | 334.0 | 343.7 | 343.1 | 37.30 | 03.24 | 344.0 | 324.4 | 310.1 | 93.12 | 313.3 | 120.5 | 233.3 | 34 | 93.20 | 93.10 | 1111 |
| Arsenic | 0.01 | (3) | < 0.020 | < 0.020 | < 0.020 | < 0.020 | 0.02 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 |
| Barium | 2.0 | (3) | 0.064 | 0.077 | 0.060 | 0.11 | 0.23 | 0.066 | 0.09 | 0.063 | 0.087 | 0.048 | 0.063 | 0.07 | 0.10 | 0.076 | 0.08 | 0.072 | 0.074 | 0.065 | 0.063 |
| Cadmium | 0.005 | (3) | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Chromium | 0.005 | (3) | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| | 0.015 | · , | < 0.0050 | < 0.0050 | <0.0050 | 0.0054 | < 0.0050 | < 0.0050 | 0.0057 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | <0.0050 | 0.0052 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 |
| Lead | | (3) | | | | | | | | | | | | | | | | | - | | |
| Selenium | 0.05 | (3) | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Silver | 0.05 | (3) | 0.0027 J | < 0.0050 | <0.0050 | 0.0056 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | 0.0023 J | < 0.0050 | < 0.0050 | 0.0059 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 |
| Mercury | 0.002 | (3) | < 0.00020 | < 0.00020 | 0.000085 J | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | 0.000060 J | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 |
| Dissolved Metals (mg/L | 0.01 | (2) | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.0010 | 0.001 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.0010 | 0.001 | < 0.020 |
| Arsenic | | (2) | | | | | | | | | | | | | | | | | | | |
| Barium | 1.0 | (3) | 0.063 | 0.082 | 0.055 | 0.065 | 0.095 | 0.066 | 0.068 | 0.06 | 0.089 | 0.049 | 0.064 | 0.065 | 0.09 | 0.067 | 0.08 | 0.069 | 0.072 | 0.062 | 0.062 |
| Cadmium | 0.005 | (2) | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Calcium | - | (2) | 110 | 140 | 74 | 110 | 120 | 98 | 37 | 30 | 100 | 110 | 140 | 36 | 130 | 45 | 92 | 34 | 35 | 33 | 41 |
| Chromium | 0.05 | (3) | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0050 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Copper | 1 | (3) | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.050 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | 0.0030 J | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Iron | 1 | (3) | 0.0056 J | < 0.020 | < 0.020 | < 0.020 | 0.023 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | 0.0066 J | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 |
| Lead | 0.015 | (2) | 0.0075 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.00020 | < 0.0050 | < 0.00050 | < 0.00050 | < 0.0050 | 0.0066 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.00050 | < 0.00050 | < 0.0050 |
| Magnesium | - | | 25 | 27 | 14 | 22 | 26 | 21 | 6.2 | 5.2 | 21 | 25 | 26 | 6.2 | 25 | 8.2 | 16 | 6 | 5.8 | 5.9 | 7.1 |
| Manganese | 0.2 | (3) | 0.00074 J | <0.0020 | 0.0043 | <0.0020 | 0.076 | 0.0054 | 0.009 | 0.0021 | 0.011 | <0.0020 | <0.0020 | 0.0013 J | <0.0020 | 0.0031 | < 0.0020 | 0.0032 | 0.0028 | 0.0031 | < 0.0020 |
| Potassium | - | | 1.7 | 2.0 | 1.0 | 1.4 | 2.1 | 1.6 | 1.6 | 1.7 | 1.4 | 2.0 | 1.9 | 1.8 | 2.2 | 1.8 | 2.1 | 1.9 | 1.6 | 1.8 | 1.9 |
| Selenium | 0.05 | (3) | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.0010 | < 0.0010 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.0010 | < 0.0010 | < 0.050 |
| Silver | 0.05 | (3) | 0.0021 J | < 0.0050 | 0.0024 J | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | 0.0023 J | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 |
| Sodium | - | | 81 | 83 | 36 | 61 | 67 | 58 | 16 | 14 | 57 | 80 | 84 | 18 | 80 | 22 | 53 | 18 | 17 | 17 | 22 |
| Uranium | 0.03 | (3) | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.0050 | < 0.10 | 0.0008 | < 0.00050 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.0008 | 0.0007 | < 0.10 |
| Zinc | | (3) | 0.020 J | < 0.020 | 0.065 | < 0.020 | 0.030 | < 0.020 | 0.02 | 0.019 | < 0.020 | 0.016 J | < 0.020 | 0.056 | < 0.020 | 0.031 | < 0.020 | 0.025 | < 0.010 | 0.018 | < 0.020 |

- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018)
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remediation (February 2019)
- (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds
 - = No screening level available or result available
 - = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time
 - = Analytical result exceeds the respective screening level.
 - ** = Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

TABLE 9
Seeps Analytical Summary
2019 Groundwater Remediation and Monitoring Annual Report

| | | | | | | See | p #1 | | | |
|-----------------------------------|---------|------|--------|--------|--------|---------|--------|---------|--------|---------|
| | | | Aug-18 | May-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compou | nds (mg | /l): | | | | | | | | |
| Benzene | 0.005 | (2) | | | | <0.001 | | <0.001 | | <0.001 |
| Toluene | 0.750 | (3) | | | | <0.001 | | <0.001 | | <0.001 |
| Ethylbenzene | 0.700 | (2) | | | | <0.001 | | <0.001 | | <0.001 |
| Xylene | 0.620 | (3) | | | | <0.0015 | | <0.0015 | | <0.0015 |
| MTBE | 0.143 | (4) | | | | 0.043 | | 0.041 | | 0.013 |
| General Chemistry (mg/l) | : | | | | | | | | | |
| Fluoride | 1.6 | (3) | | <0.50 | | <0.5 | | 0.35 | | <1.0 |
| Chloride | 250 | (3) | | 270 | | 210 | | 200 | | 170 |
| Nitrite | 1.0 | (2) | | <0.50 | | <1.0 | | <1.0 | | <1.0 |
| Bromide | - | - | | 3.9 | | 3.2 | | 2.6 | | 3.3 |
| Nitrate | 10 | (3) | | <0.50 | | <1.0 | | <1.0 | | <1.0 |
| Phosphorus | - | - | | <10 | | < 2.5 | | < 2.5 | | <5.0 |
| Sulfate | 600 | (3) | | 1000 | | 1100 | | 1300 | | 1200 |
| Carbon Dioxide (CO ₂) | - | - | | 430 | | 470 | | 450 | | 390 |
| Alkalinity (CaCO ₃) | - | - | | 453.2 | | 507.1 | | 479.6 | | 433.1 |
| Bicarbonate (CaCO ₃) | - | - | | 453.2 | | 507.1 | | 479.6 | | 433.1 |

| | | See | p #2 | | |
|--------|--------|--------|--------|--------|--------|
| Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 |
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| | | | | p #3 | | | |
|--------|--------|--------|--------|--------|---------|--------|--------|
| Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| | | | | | | | |
| | | | | | <0.001 | | |
| | | | | | <0.001 | | |
| | | | | | <0.001 | | |
| | | | | | <0.0015 | | |
| | | | | | <0.001 | | |
| | | | | | | | |
| | | | | | 0.22 | | |
| | | | | | 260 | | |
| | | | | | <1.0 | | |
| | | | | | 3.2 | | |
| | | | | | <1.0 | | |
| | | | | | <5 | | |
| | | | | | 2500 | | |
| | | | | | 330 | | |
| | | | | | 365.4 | | |
| | | | | | 365.4 | | |

| | | | Seep #6 | | | | | | | |
|------------------------------------|-------|-----|---------|--------|--------|--------|--------|--------|--------|--------|
| | | | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compounds (mg/l): | | | | | | | | | | |
| Benzene | 0.005 | (2) | | | | | | | | |
| Toluene | 0.750 | (3) | | | | | | | | |
| Ethylbenzene | 0.700 | (2) | | | | | | | | |
| Xylene | 0.620 | (3) | | | | | | | | |
| MTBE | 0.143 | (4) | | | | | | | | |
| General Chemistry (mg/l) | : | | | | | | | | | |
| Fluoride | 1.6 | (3) | | | | | | | | |
| Chloride | 250 | (3) | | | | | | | | |
| Nitrite | 1.0 | (2) | | | | | | | | |
| Bromide | - | - | | | | | | | | |
| Nitrate | 10 | (3) | | | | | | | | |
| Phosphorus | - | - | | | | | | | | |
| Sulfate | 600 | (3) | | | | | | | | |
| Carbon Dioxide (CO ₂) | - | - | | | | | | | | |
| Alkalinity (CaCO ₃) | - | - | | | | | | | | |
| Bicarbonate (CaCO ₃) | - | - | | | | | | | | |

| Seep #9 | | | | | | | | | | |
|---------|--------|--------|--------|--------|--------|--|--|--|--|--|
| Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | | | | | |
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- (1) EPA Regional Screening Levels (November 2019) -Tap Water
- (2) EPA Regional Screening Levels (April 2019) MCL
- (3) NMED WQCC standards Title 20 Chapter 6, Part 2, 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018)
- (4) NMED Tap Water Screening Level Risk Assessment Guidance for Site Investigations and Remediation (February 2019)
- (5) EPA Screening Level Tap Water x 10 for carcinogenic compounds
 - = No screening level available
- * = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time
 - = Analysis not required and/or well contains separate phase
 - = Analytical result exceeds the respective screening level.
- ** = Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

TABLE 10 San Juan River Analytical Summary 2019 Groundwater Remediation and Monitoring Annual Report

| Constituents | | | | Upstream | | | | | | | | | North of MW-45 | | | | | | | | | |
|-----------------------------------|---------|-------|-----------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Constituents | i | | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compounds | (mg/L): | | | | | | | | | | | | | | | | | | | | | |
| Benzene | 0.005 | (1) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Toluene | 1.000 | (1) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Ethylbenzene | 0.700 | (1) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Xylenes | 0.620 | (1) | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 |
| MTBE | 0.100 | (1) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Total Petroleum Hydrocarbon | · • · | | | | | | | | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (2) | <0.40 | <0.40 | <0.40 | <0.40 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.40 | < 0.40 | < 0.40 | < 0.40 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 |
| Gasoline Range Organics | 0.0101 | (2) | <0.050 | < 0.050 | <0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Motor Oil Range Organics | 0.0858 | (2) | <2.5 | < 2.5 | <2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 |
| General Chemistry (mg/L): | | | | | | | | | | | | | | | | | | | | | | |
| Fluoride | 1.6 | (1) | 0.21 J | <1.0 | 0.13 | 0.15 | 0.13 | 0.17 | 0.16 | 0.2 | 0.17 | 0.21 | 0.19 | <1.0 | 0.14 | 0.15 | 0.12 | 0.17 | 0.15 | 0.2 | 0.17 | 0.2 |
| Chloride | 250 | (1) | 3.6 | 5.4 | 2.5 | 2.8 | 3.4 | 3.5 | 2.7 | 3.3 | 3 | 4.3 | 3.6 | 5.5 | 2.7 | 2.8 | 2.8 | 3.5 | 2.7 | 3.3 | 2.9 | 3.8 |
| Nitrite | 1.0 | (1) | 0.13 J | <1.0 | <0.10 | <1.0 | < 0.10 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | <1.0 | <1.0 | <1.0 | <1.0 | < 0.10 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 |
| Bromide | - | - (4) | <0.50 | <1.0 | <0.10 | <0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | <0.10 | <1.0 | <0.10 | <0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Nitrate | 10 | (1) | 0.13 J | <1.0 | <0.10 | <1.0 | 0.18 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | <1.0 | <1.0 | <1.0 | <1.0 | < 0.10 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 |
| Phosphorus | - | - (4) | <0.50 H | <0.50 | <0.50 | <0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | <0.50 H | <5 H | <0.50 | <0.50 H | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Sulfate | 600 | (1) | 49 | 92 | 43 | 50 | 46 | 73 | 49 | 75 | 54 | 110 | 50 | 94 | 42 | 49 | 45 | 71 | 48 | 78 | 52 | 92 |
| Carbon Dioxide (CO ₂) | - | - | 79 H | 87 H | | 76 | 77 | 71 | 77 | 86 | | | 80 H | 86 H | | 75 H | 75 | 71 | 76 | 86 | | |
| Alkalinity (CaCO ₃) | - | - | 87.56 | 95.56 | 82.16 | 84.2 | 85.68 | 91.24 | 86 | 95 | 91.56 | 99.56 | 88.72 | 95.48 | 82.08 | 84.32 | 84.16 | 91.12 | 84.8 | 95.44 | 91 | 99.68 |
| Total Dissolved Solids | 1000 | (1) | 245 | 278 | 294 | 235 | 181 | 167 | 178 | 240 | 204 | 232 | 187 | 271 | 205 | 210 | 176 | 166 | 180 | 246 | 200 | 267 |
| Electric Conductivity | - | - | 310 | 427 | 454 | 360 | 280 | 250 | 290 | 380 | 300 | 357 | 310 | 417 | 314 | 320 | 280 | 260 | 280 | 380 | 300 | 411 |
| Total Metals (mg/L): | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | 0.01 | (1) | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 |
| Barium | 2.0 | (1) | 0.10 | 0.14 | 0.16 | 0.079 | 0.099 | 0.079 | 0.11 | 0.08 | 0.16 | 0.061 | 0.12 | 0.19 | 0.17 | 0.13 | 0.11 | 0.085 | 0.14 | 0.08 | 0.15 | 0.06 |
| Cadmium | 0.005 | (1) | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Chromium | 0.05 | (1) | 0.0026 J | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | 0.0015 J | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Lead | 0.015 | (1) | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | 0.0043 J | < 0.0050 | 0.0056 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 |
| Selenium | 0.05 | (1) | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Silver | 0.05 | (1) | 0.00084 J | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | 0.00077 J | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 |
| Mercury | 0.002 | (1) | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 |
| Dissolved Metals (mg/L): | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | 0.01 | (1) | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.0010 | 0.001 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | | < 0.020 | < 0.020 | < 0.0010 | < 0.0010 | < 0.020 |
| Barium | 2 | (1) | 0.078 | 0.076 | 0.066 | 0.058 | 0.072 | 0.07 | 0.084 | 0.072 | 0.077 | 0.056 | 0.079 | 0.074 | 0.065 | 0.055 | 0.069 | 0.07 | 0.082 | 0.073 | 0.072 | 0.056 |
| Cadmium | 0.005 | (1) | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Calcium | - 0.05 | - (4) | 32 | 39 | 30 | 32 | 33 | 37 | 34 | 39 | 33 | 45 | 33 | 40 | 30 | 32 | 32 | 36 | 34 | 39 | 35 | 44 |
| Conner | 0.05 | (1) | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Copper | 1.0 | (1) | 0.0033 J | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | 0.011 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 |
| Iron | 1.0 | (1) | 0.0089 J | 0.074 | <0.020 | <0.020 | 0.015 J | < 0.020 | 0.29 | < 0.020 | 0.062 | < 0.020 | 0.0096 J | 0.057 | <0.020 | <0.020 | 0.011 J | 0.07 | 0.32 | < 0.020 | 0.028 | < 0.020 |
| Lead | 0.015 | | 0.0063 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.00050 | < 0.00050 | < 0.0050 | <0.0050 | < 0.0050 | <0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.00050 | < 0.00050 | |
| Magnesium | 0.2 | (1) | 6.5 | 7.3 | 5.3 | 5.7 | 5.9 | 6.4 | 5.5 | 5.9 | 5.4 | 7.1 | 6.5 | 7.3 | 5.2 | 5.7 | 5.7 | 6.4 | 5.6 | 6.1 | 5.5 | 6.8 |
| Manganese | 0.2 | (1) | 0.0057 | 0.017 | 0.0022 | 0.0074 | 0.0095 | 0.021 | 0.03 | 0.012 | 0.01 | 0.034 | 0.0064 | 0.013 | 0.0028 | 0.0065 | 0.008 | 0.019 | 0.033 | 0.011 | 0.0037 | 0.01 |
| Potassium | - 0.05 | (4) | 2.1 | 2.2 | 1.6 | 1.7 | 1.9 | 1.9 | 2.1 | 1.7 | 1.9 | 2.1 | 2.2 | 2.1 | 1.7 | 1.8 | 1.8 | 2 | 2.3 | 1.8 | 2 | 2.2 |
| Selenium | 0.05 | (1) | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.0010 | < 0.0010 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | | < 0.050 | < 0.0010 | | < 0.050 |
| Silver | 0.05 | (1) | 0.0013 J | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | | < 0.0050 | < 0.0050 | | < 0.0050 |
| Sodium | - 0.02 | (1) | 17 | 29 | 15 | 20 | 17 | 26 | 19 | 26 | 19 | 39 | 17 | 30 | 15 | 20 | 16 | 25 | 20 | 27 | 18 | 34 |
| Uranium | 0.03 | (1) | < 0.10 | < 0.10 < 0.020 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.00076 | 0.00062 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.00076 | 0.00066 | < 0.10 |
| Zinc | 10 | (1) | 0.021 | <0.020 | 0.086 | <0.020 | 0.033 | < 0.020 | 0.024 | 0.016 | 0.021 | < 0.020 | 0.018 J | < 0.020 | 0.11 | < 0.020 | 0.031 | < 0.020 | < 0.020 | 0.014 | 0.018 | 0.05 |

Notes:

(1) NMED WQCC standards - Title 20 Chapter 6, Part 2, - 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018) (2) NMED SSG (June 2019)

- = No screening level available

- = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time

- = Analysis not required and/or well contains separate phase
 = Analytical result exceeds the respective screening level.

 ** = Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

TABLE 10 San Juan River Analytical Summary 2019 Groundwater Remediation and Monitoring Annual Report

| Constituents | | | | | | | North of | MW-46 | | | | | Downstream | | | | | | | | | |
|-----------------------------------|-----------|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|
| Constituents | | | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 | Aug-19 | Apr-19 | Aug-18 | Apr-18 | Aug-17 | Apr-17 | Aug-16 | Apr-16 | Aug-15 | Apr-15 |
| Volatile Organic Compounds (| (mg/L): | | | | | | | | | | | | | | | | | | | | | |
| Benzene | 0.005 | (1) | <0.001 | <0.001 | <0.001 | < 0.001 | <0.001 | < 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | < 0.001 | <0.001 | <0.001 | <0.001 | < 0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Toluene | 1.000 | (1) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | < 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Ethylbenzene | 0.700 | (1) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Xylenes | 0.620 | (1) | <0.0015 | <0.0015 | < 0.0015 | < 0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | <0.0015 | < 0.0015 | <0.0015 |
| MTBE | 0.100 | (1) | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | < 0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Total Petroleum Hydrocarbons | \ \ \ \ / | | | | | | | | | | | | | | | | | | | | | |
| Diesel Range Organics | 0.0167 | (2) | <0.40 | <0.40 | <0.40 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.40 | < 0.40 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 |
| Gasoline Range Organics | 0.0101 | (2) | <0.050 | < 0.050 | <0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Motor Oil Range Organics | 0.0858 | (2) | <2.5 | < 2.5 | <2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 |
| General Chemistry (mg/L): | | | | | | | | | | | | | | | | | | | | | | |
| Fluoride | 1.6 | (1) | 0.19 | <1.0 | 0.14 | 0.15 | 0.13 | 0.19 | 0.15 | 0.19 | 0.17 | 0.21 | 0.19 | 0.20 | 0.14 | 0.15 | 0.12 | 0.17 | 0.16 | 0.19 | 0.17 | 0.21 |
| Chloride | 250 | (1) | 3.5 | 6.2 | 2.5 | 3 | 2.9 | 4.4 | 2.7 | 3.5 | 2.9 | 3.8 | 3.6 | 5.5 | 2.5 | 2.9 | 2.8 | 3.7 | 2.7 | 3.4 | 3 | 3.9 |
| Nitrite | 1.0 | (1) | <1.0 | <1.0 | <1.0 | <1.0 | < 0.10 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | 0.13 J | <1.0 | <1.0 | <1.0 | < 0.10 | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 |
| Bromide | - | - | <0.10 | <1.0 | <0.10 | <0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | <0.10 | <1.0 | <0.10 | <0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Nitrate | 10 | (1) | <1.0 | <1.0 | <1.0 | <1.0 | 0.074 J | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 | 0.13 J | <1.0 | <1.0 | <1.0 | 0.082 J | < 1.0 | < 1.0 | < 1.0 | < 0.10 | < 0.10 |
| Phosphorus | - | - | <0.50 H | <5.0 H | <0.50 | <0.50 H | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | <0.50 H | <5.0 H | <0.50 | <0.50 H | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| Sulfate | 600 | (1) | 50 | 130 | 43 | 59 | 45 | 120 | 49 | 80 | 53 | 93 | 52 | 110 | 44 | 58 | 45 | 80 | 49 | 84 | 54 | 100 |
| Carbon Dioxide (CO ₂) | - | - | 80 | 92 | | 78 | 75 | 72 | 77 | 86 | | | 80 H | 89 H | | 77 H | 75 | 72 | 77 | 87 | | |
| Alkalinity (CaCO ₃) | - | - | 88.92 | 102.1 | 82.52 | 87.48 | 84.92 | 103.6 | 85 | 95 | 92 | 99.6 | 88.80 | 99.36 | 82.04 | 86.16 | 84.52 | 93 | 86 | 97 | 92.12 | 102.6 |
| Total Dissolved Solids | 1000 | (1) | 194 | 155 | 202 | 219 | 182 | 172 | 170 | 245 | 202 | 263 | 204 | 321 | 196 | 200 | 186 | 172 | 184 | 254 | 196 | 279 |
| Electric Conductivity | - | - | 310 | 239 | 309 | 340 | 280 | 260 | 280 | 380 | 310 | 405 | 310 | 494 | 302 | 319 | 280 | 260 | 290 | 400 | 300 | 429 |
| Total Metals (mg/L): | | | | | | | | | | | | | , | | | | | | | | | |
| Arsenic | 0.01 | (1) | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.02 | < 0.020 |
| Barium | 2.0 | (1) | 0.15 | 0.14 | 0.13 | 0.074 | 0.086 | 0.082 | 0.11 | 0.078 | 0.17 | 0.057 | 0.15 | 0.19 | 0.11 | 0.078 | 0.091 | 0.078 | 0.12 | 0.082 | 0.130 | 0.058 |
| Cadmium | 0.005 | (1) | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.002 | < 0.0020 |
| Chromium | 0.05 | (1) | 0.0046 J | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | 0.0024 J | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.006 | < 0.0060 |
| Lead | 0.015 | (1) | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | 0.0058 | < 0.0050 | < 0.0050 | < 0.0050 | <0.0050 | < 0.0050 | 0.0059 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.005 | < 0.0050 |
| Selenium | 0.05 | (1) | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 |
| Silver | 0.05 | (1) | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | 0.00058 J | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.005 | < 0.0050 |
| Mercury | 0.002 | (1) | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.00020 | < 0.0002 | < 0.00020 |
| Dissolved Metals (mg/L): | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | 0.01 | (1) | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.0010 | < 0.0010 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.020 | < 0.0010 | < 0.001 | < 0.020 |
| Barium | 2 | (1) | 0.081 | 0.074 | 0.065 | 0.057 | 0.071 | 0.067 | 0.086 | 0.074 | 0.074 | 0.062 | 0.080 | 0.076 | 0.065 | 0.058 | 0.07 | 0.068 | 0.085 | 0.072 | 0.077 | 0.055 |
| Cadmium | 0.005 | (1) | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.002 | < 0.0020 |
| Calcium | - | - | 34 | 47 | 31 | 35 | 33 | 48 | 34 | 40 | 36 | 44 | 33 | 44 | 31 | 35 | 33 | 40 | 34 | 41 | 34 | 47 |
| Chromium | 0.05 | (1) | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.006 | < 0.0060 |
| Copper | 1.0 | (1) | 0.0062 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.0060 | < 0.006 | < 0.0060 |
| Iron | 1.0 | (1) | 0.010 J | 0.037 | 0.021 | 0.033 | 0.014 J | < 0.020 | 0.36 | 0.022 | 0.085 | 0.028 | 0.012 J | 0.070 | 0.023 | <0.020 | 0.010 J | < 0.020 | 0.31 | 0.031 | 0.086 | < 0.020 |
| Lead | 0.015 | (1) | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.00050 | < 0.00050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.00050 | < 0.0005 | < 0.0050 |
| Magnesium | - | - | 6.6 | 8 | 5.2 | 5.9 | 5.8 | 7.1 | 5.5 | 6.1 | 5.6 | 6.7 | 6.5 | 7.7 | 5.2 | 5.9 | 5.8 | 6.5 | 5.5 | 6.2 | 5.4 | 7.2 |
| Manganese | 0.2 | (1) | 0.0066 | 0.10 | 0.0079 | 0.044 | 0.0091 | 0.098 | 0.032 | 0.010 | 0.009 | 0.011 | 0.0053 | 0.026 | 0.0041 | 0.016 | 0.012 | 0.029 | 0.032 | 0.029 | 0.011 | 0.062 |
| Potassium | - | - | 2.3 | 2.2 | 1.7 | 1.7 | 1.9 | 2 | 2.2 | 1.9 | 2 | 2.2 | 2.2 | 2.2 | 1.6 | 1.7 | 1.8 | 1.9 | 2.3 | 1.9 | 1.9 | 2.1 |
| Selenium | 0.05 | (1) | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.0010 | < 0.0010 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.050 | < 0.0010 | < 0.001 | < 0.050 |
| Silver | 0.05 | (1) | 0.0013 J | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.005 | < 0.0050 |
| Sodium | - | - | 18 | 36 | 15 | 22 | 16 | 34 | 19 | 27 | 18 | 33 | 17 | 35 | 15 | 22 | 16 | 27 | 19 | 29 | 18 | 37 |
| Uranium | 0.03 | (1) | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.00078 | 0.00067 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.00084 | 0.0006 | < 0.10 |
| Zinc | 10 | (1) | 0.034 | < 0.020 | 0.081 | < 0.020 | 0.031 | 0.02 | < 0.020 | 0.024 | 0.028 | 0.023 | 0.026 | < 0.020 | 0.040 | < 0.020 | 0.033 | < 0.020 | < 0.020 | 0.013 | 0.03 | < 0.020 |

Notes:

(1) NMED WQCC standards - Title 20 Chapter 6, Part 2, - 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less (December 2018) (2) NMED SSG (June 2019)

- = No screening level available

- = Laboratory analyzed for combined Nitrate (As N) + Nitrite (As N) to meet hold time

- = Analysis not required and/or well contains separate phase
 = Analytical result exceeds the respective screening level.

 ** = Columns hidden when there are 4 or more consecutive years recorded that analysis was not required and/or the well contained separate phase

TABLE 11
Wastewater Volumes
2019 Groundwater Remediation and Monitoring Annual Report

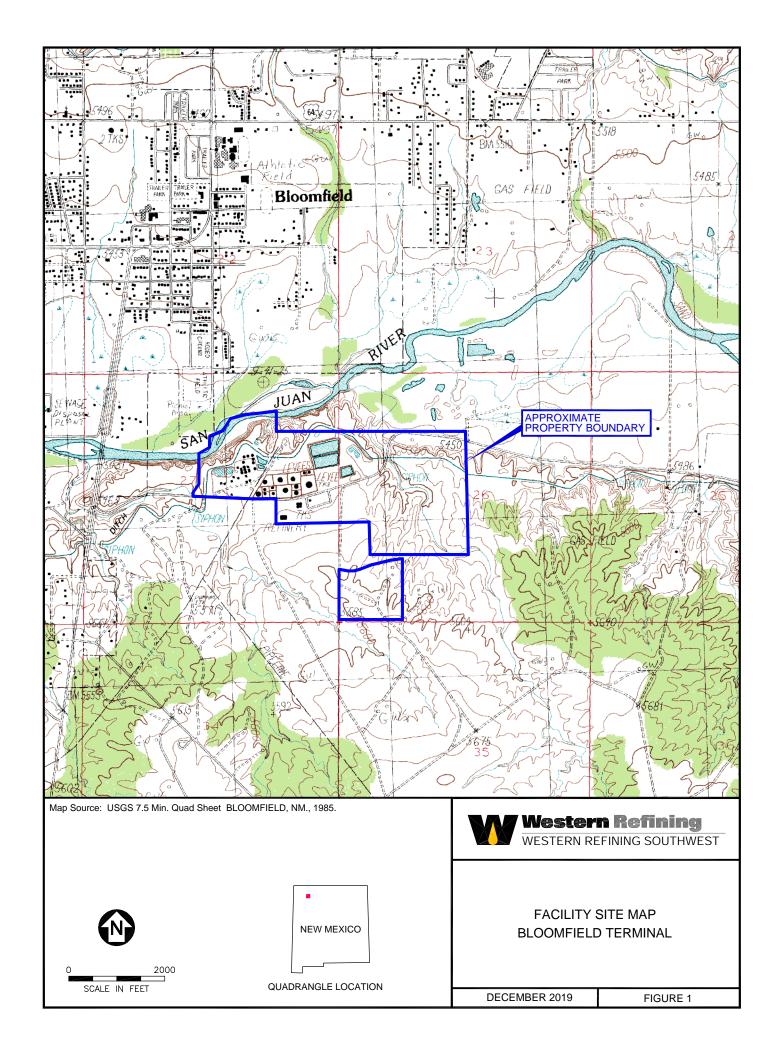
| 2019 | API Monthly Total Gallons | API Monthly Total BBIs | Injection well Total (gallons) | Injection well Total BBLs | Discharge to Evaporation Ponds Total BBLs |
|-----------|------------------------------|---------------------------|-----------------------------------|------------------------------|--|
| January | 673,000 | 16,024 | 218,274 | 5,197 | 10,827 |
| February | 789,000 | 18,786 | 210,252 | 5,006 | 13,780 |
| March | 1,156,000 | 27,524 | 165,858 | 3,949 | 23,575 |
| April | 885,000 | 21,071 | 170,856 | 4,068 | 17,003 |
| May | 1,411,000 | 33,595 | 0 | 0 | 33,595 |
| June | 1,259,000 | 29,976 | 7,938 | 189 | 29,787 |
| July | 1,059,000 | 25,214 | 0 | 0 | 25,214 |
| August | 1,076,000 | 25,619 | 0 | 0 | 25,619 |
| September | 991,000 | 23,595 | 81,690 | 1,945 | 21,650 |
| October | 920,000 | 21,905 | 0 | 0 | 21,905 |
| November | 1,225,000 | 29,167 | 119,826 | 2,853 | 26,314 |
| December | 1,424,000 | 33,905 | 7,091 | 169 | 33,736 |

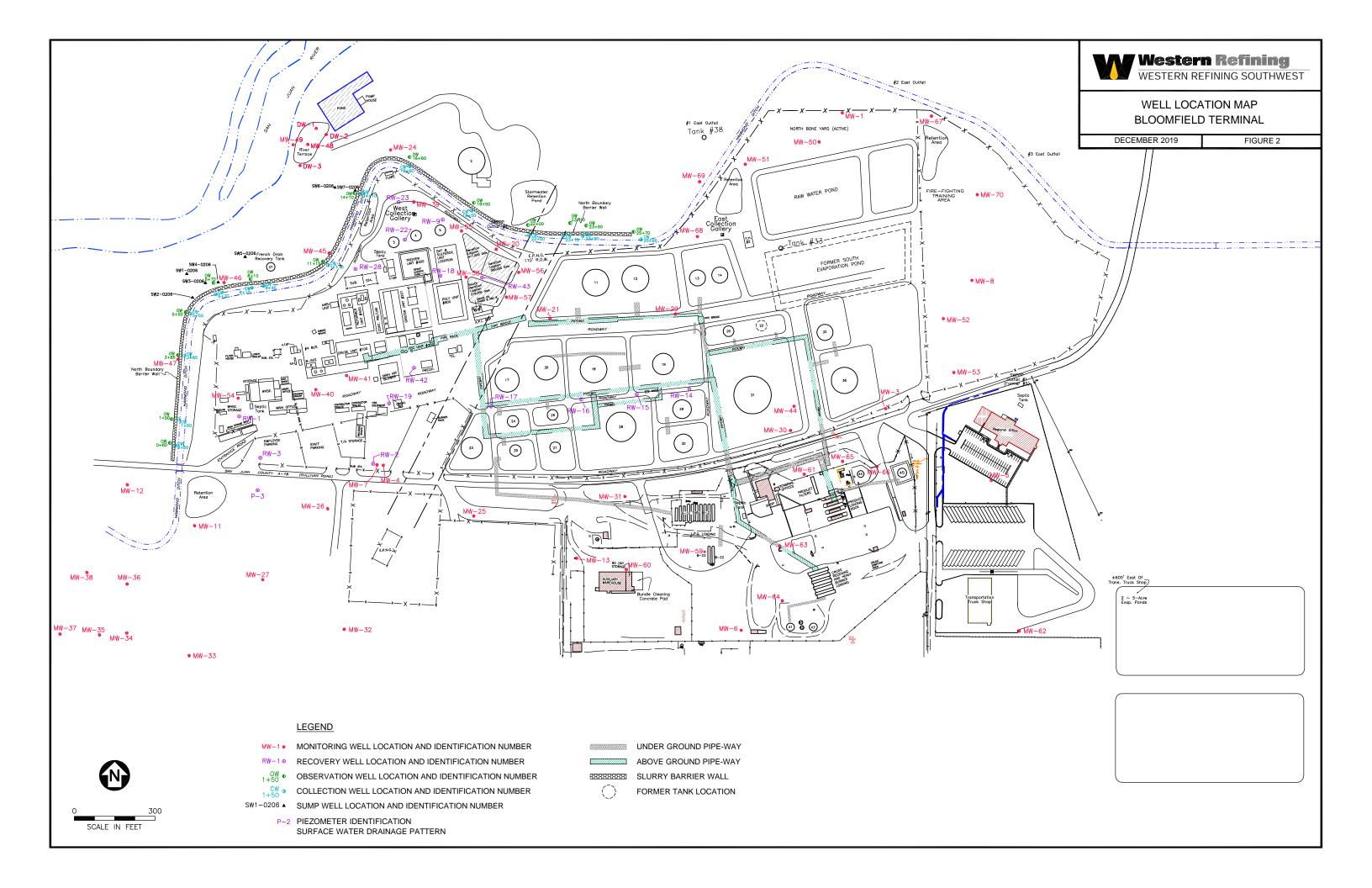
BBLs - barrels 283,005

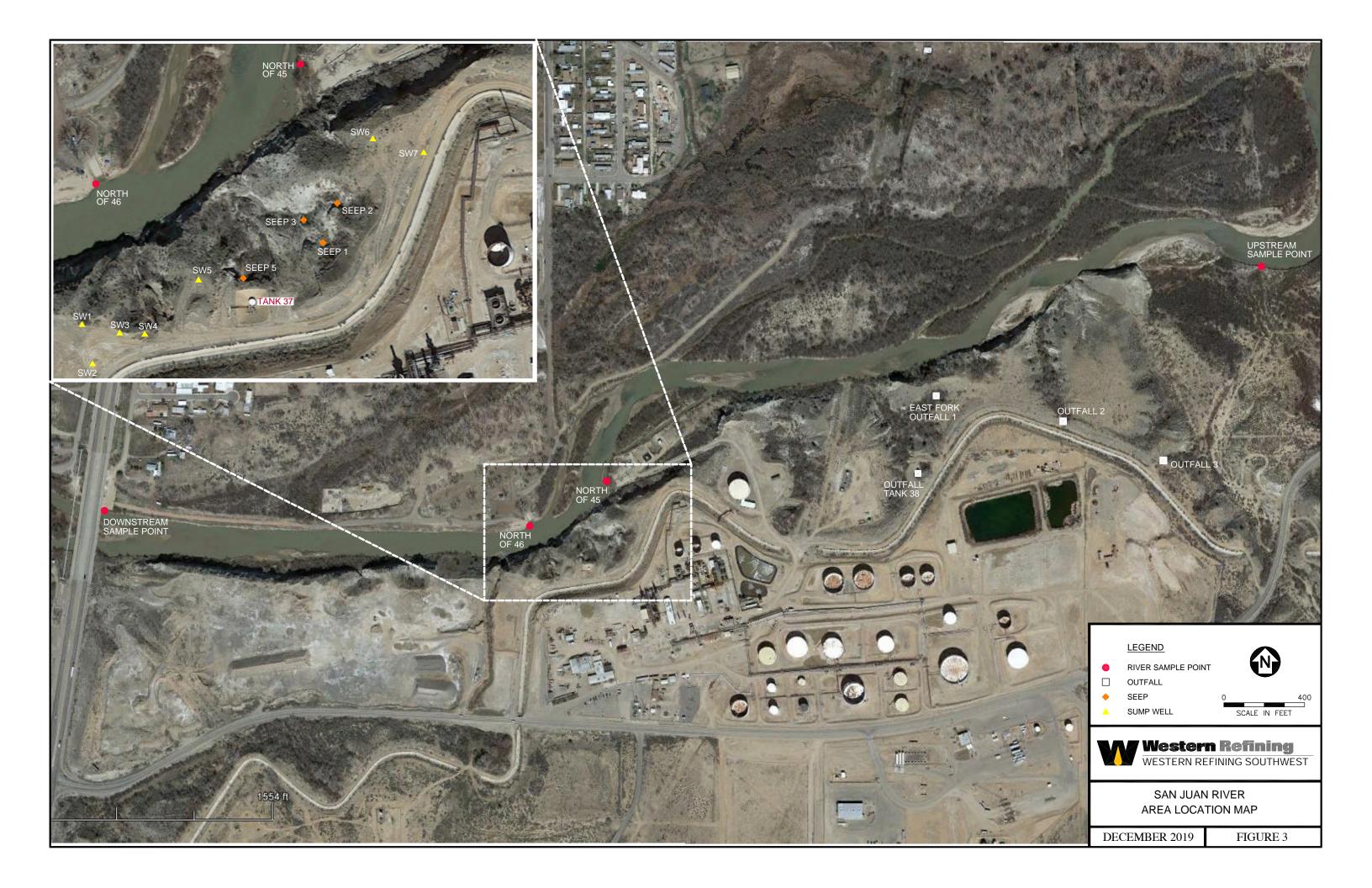
TABLE 12
Hazardous Waste Summary
2019 Groundwater Remediation and Monitoring Annual Report

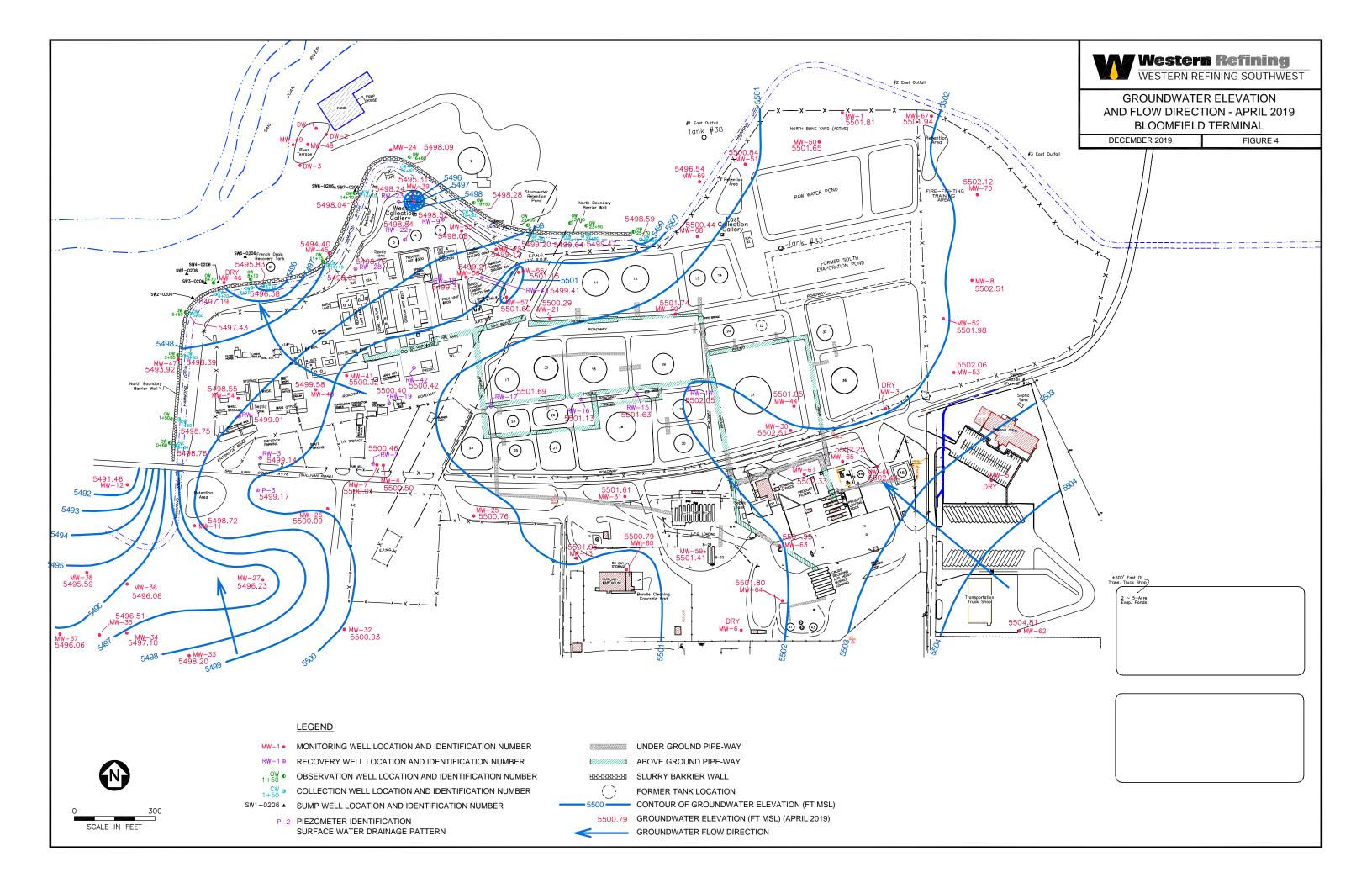
| Biok up Doto | Manifest # | Description | Conta | ainers | Quantity | Destination | Treatment |
|--------------|------------|------------------------------|-------|--------|-----------|--|------------------|
| Pick-up Date | Walliest # | Description | No. | Type | Quantity | Destination | rrealment |
| 10/15/2019 | 13217105 | Petroleum Impacted Sludge | 5 | drums | 3520 lbs | Clean Harbors Deer Park, LLC 2027 Independence Parkway South La Porte, TX, 77571 | Incineration |
| 10/15/2019 | 13217105 | Old Paints | 2 | drums | 660 lbs | Clean Harbors Deer Park, LLC 2027 Independence Parkway South La Porte, TX, 77571 | Incineration |
| 12/11/2019 | 12017680 | Used Glycol from VRU | 7 | totes | 16700 lbs | Heritage Environmental Services 284 E. Storey Rd Coolidge, AZ 85128 | Transfer Storage |

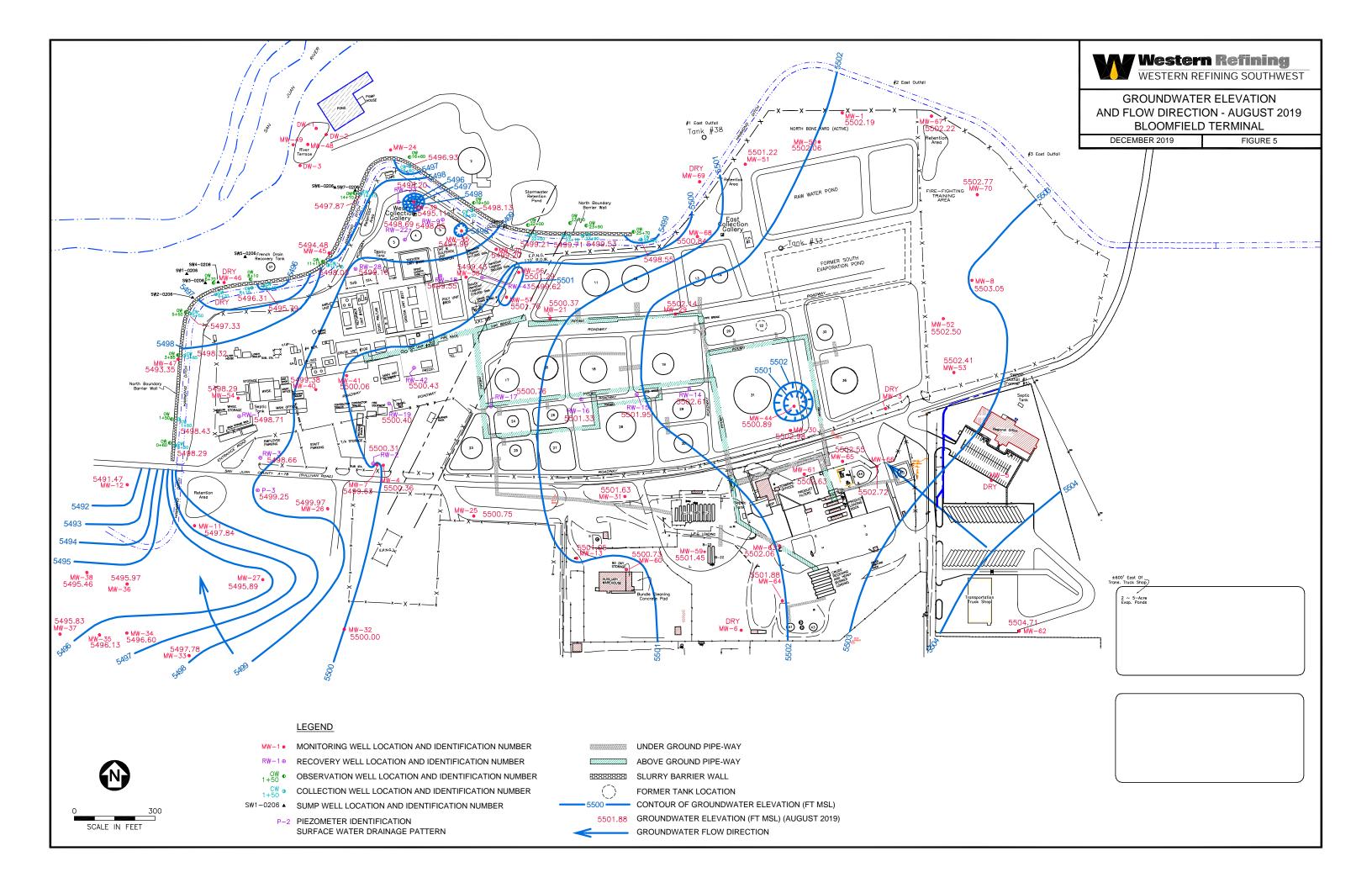
FIGURES

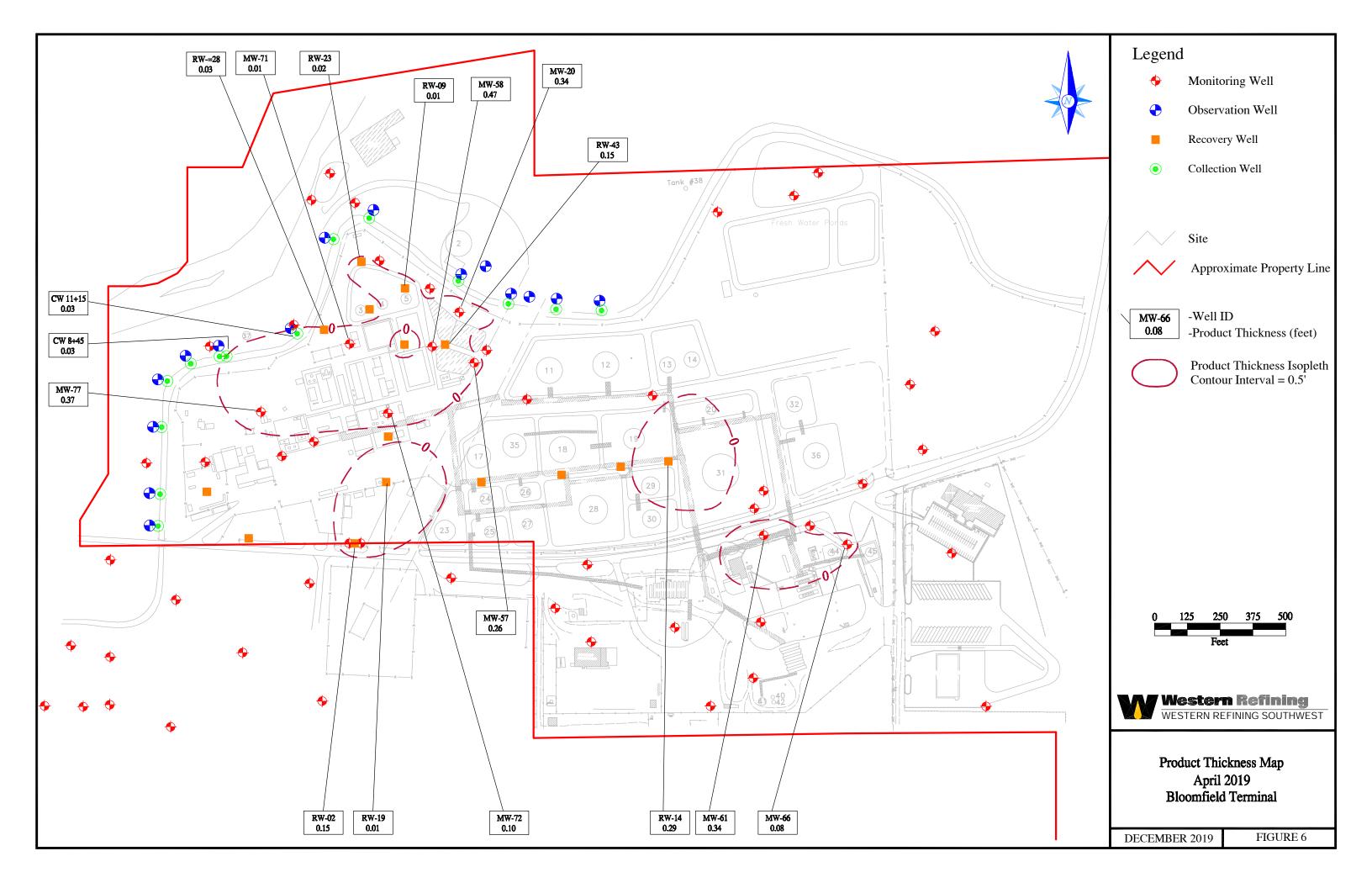


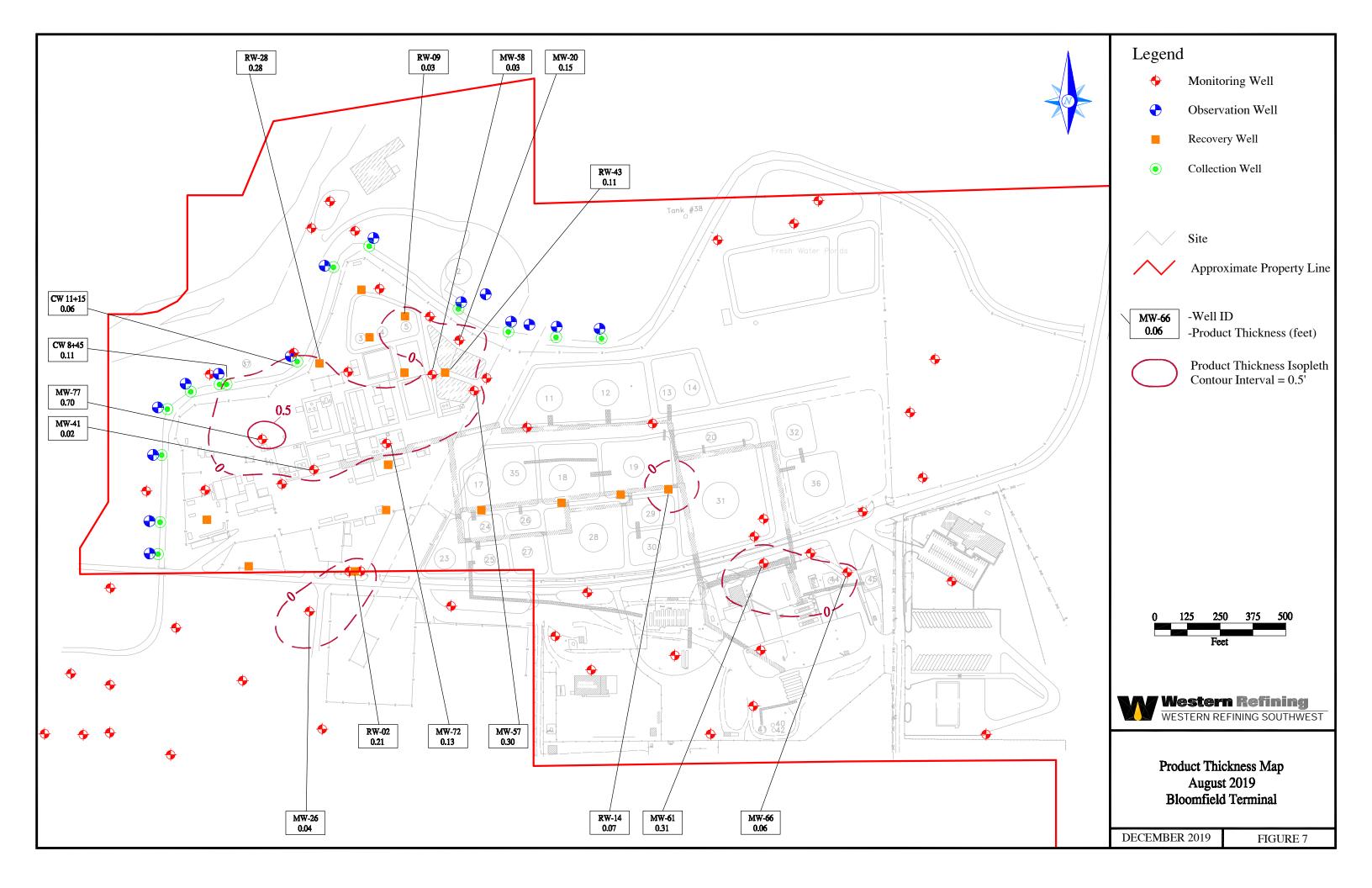


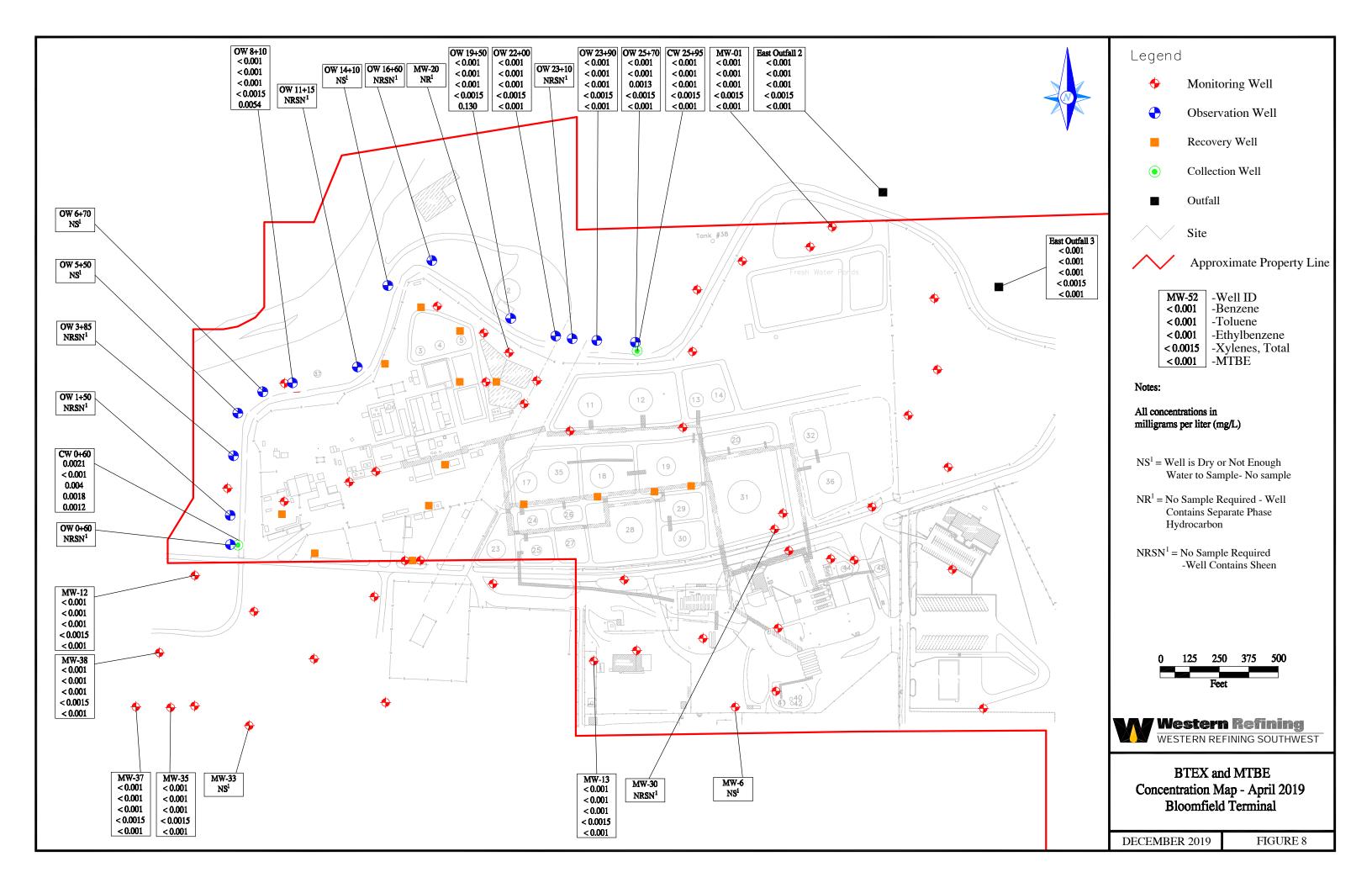


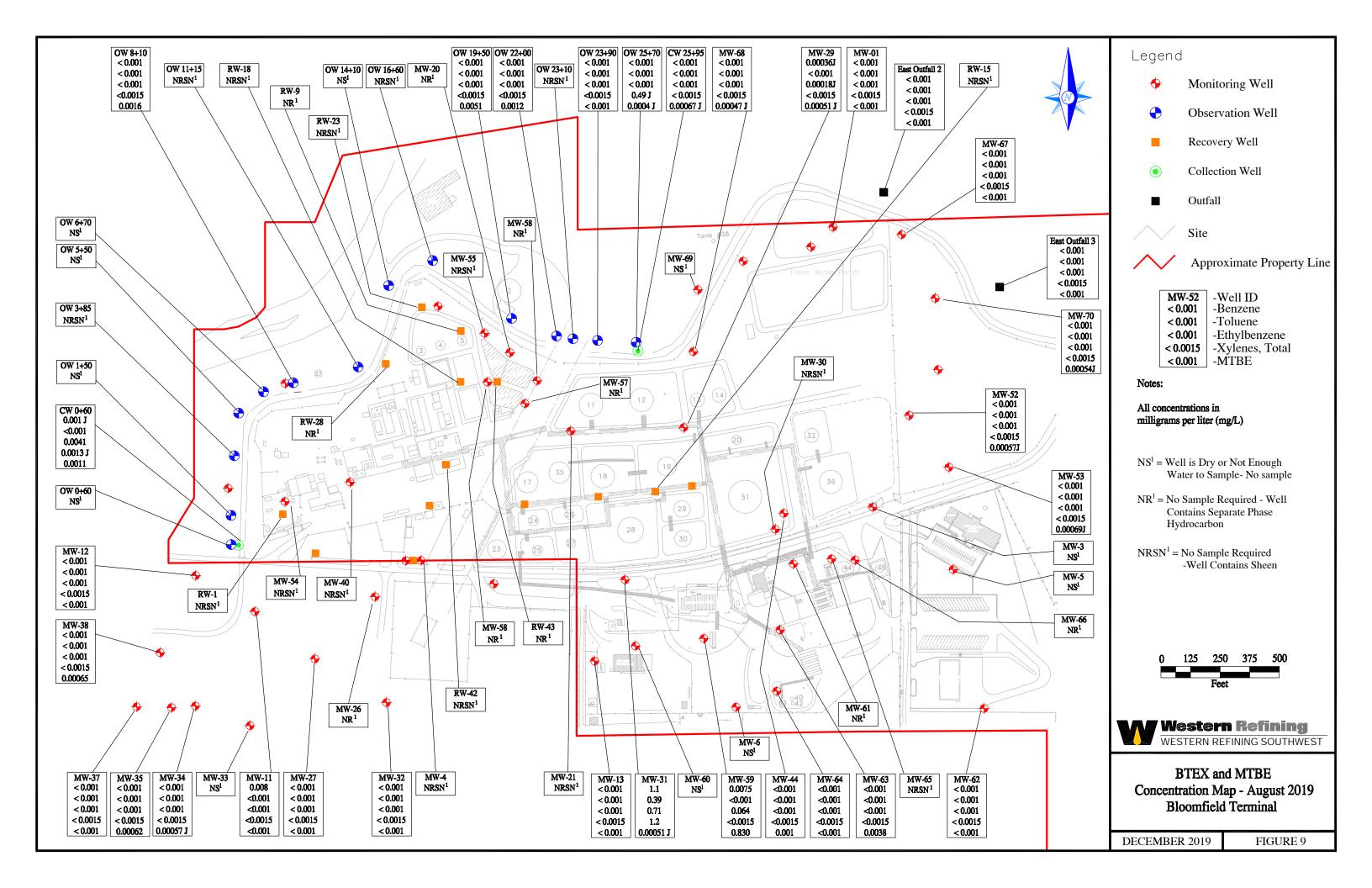


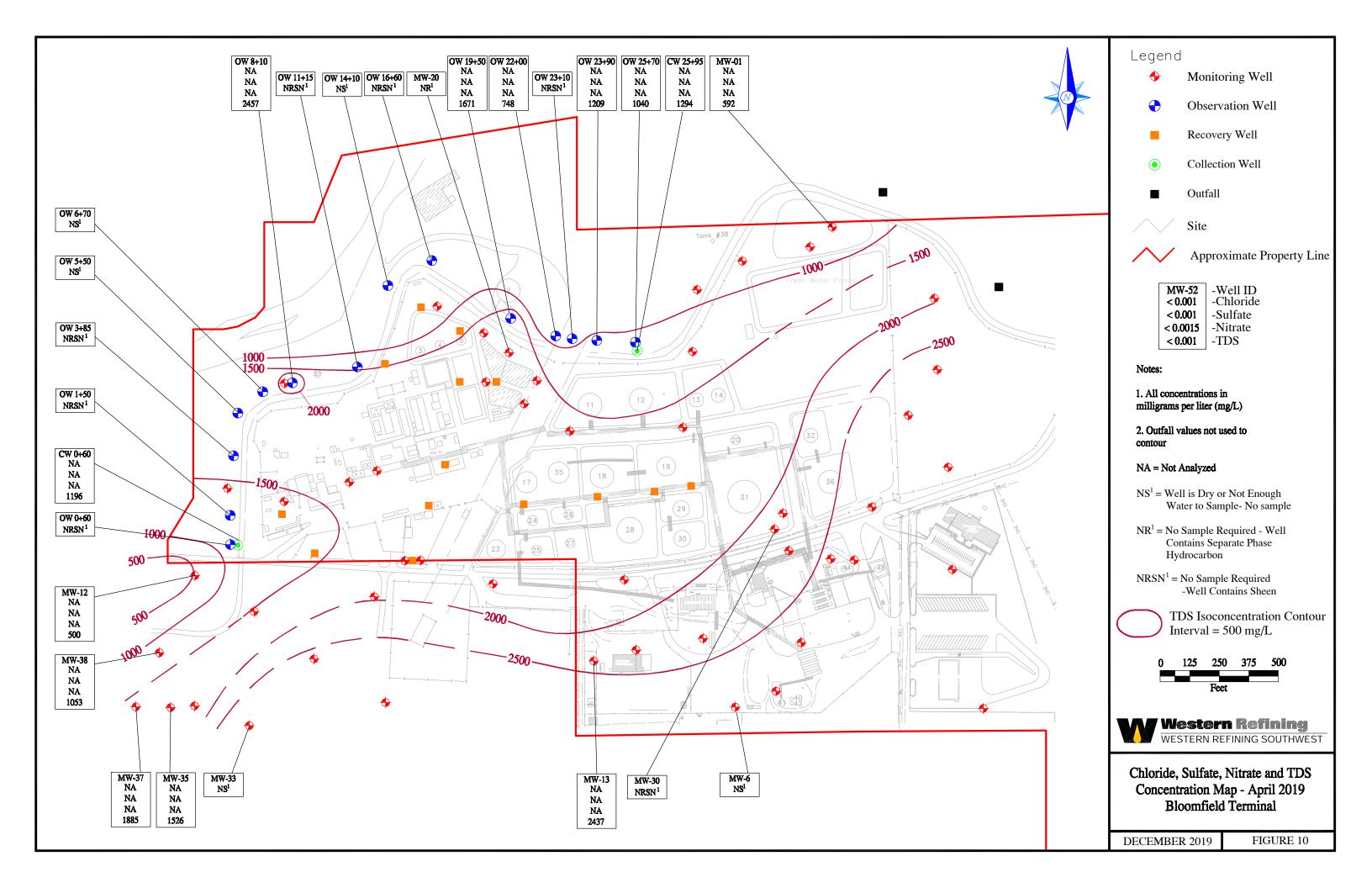


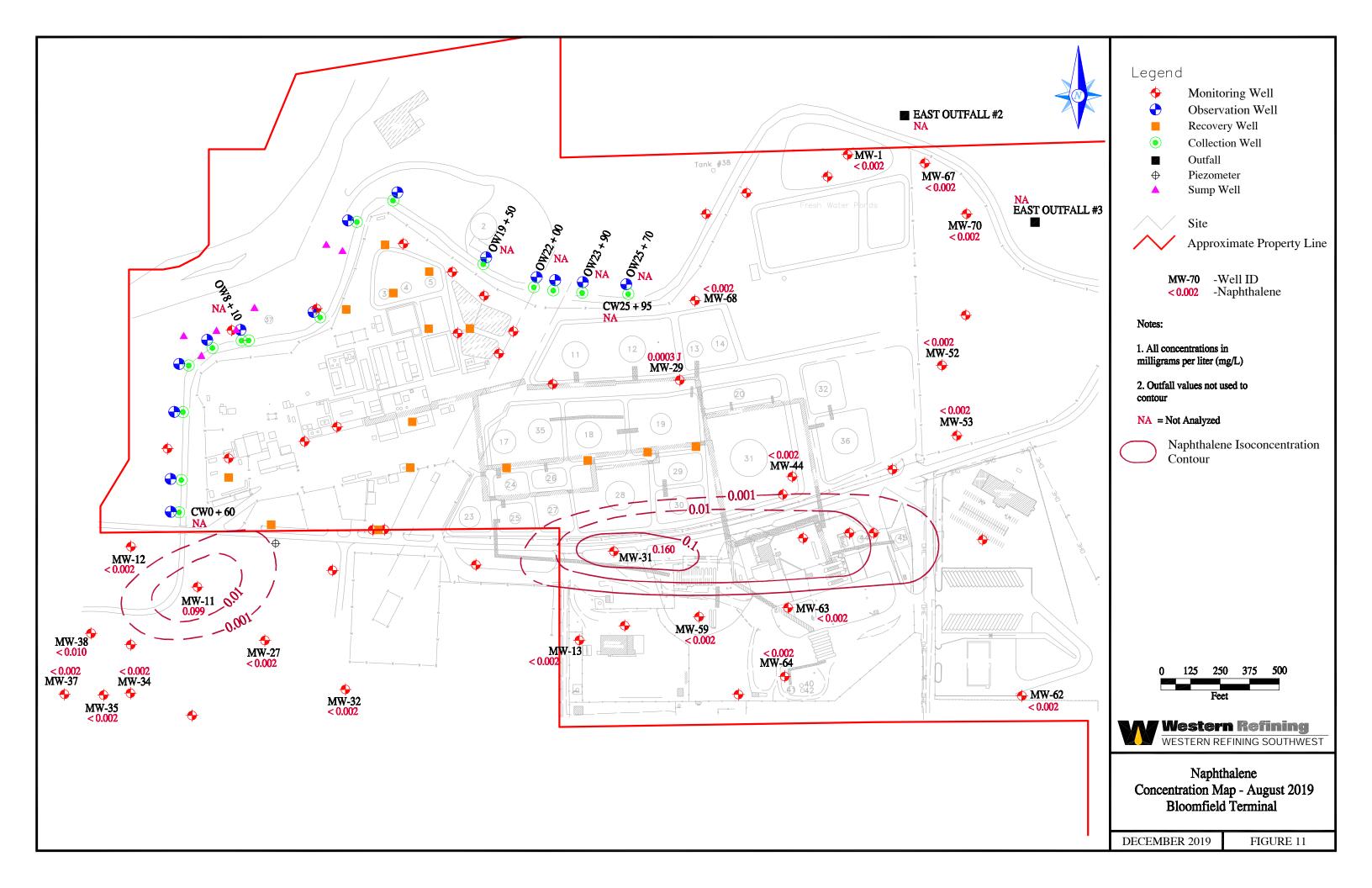


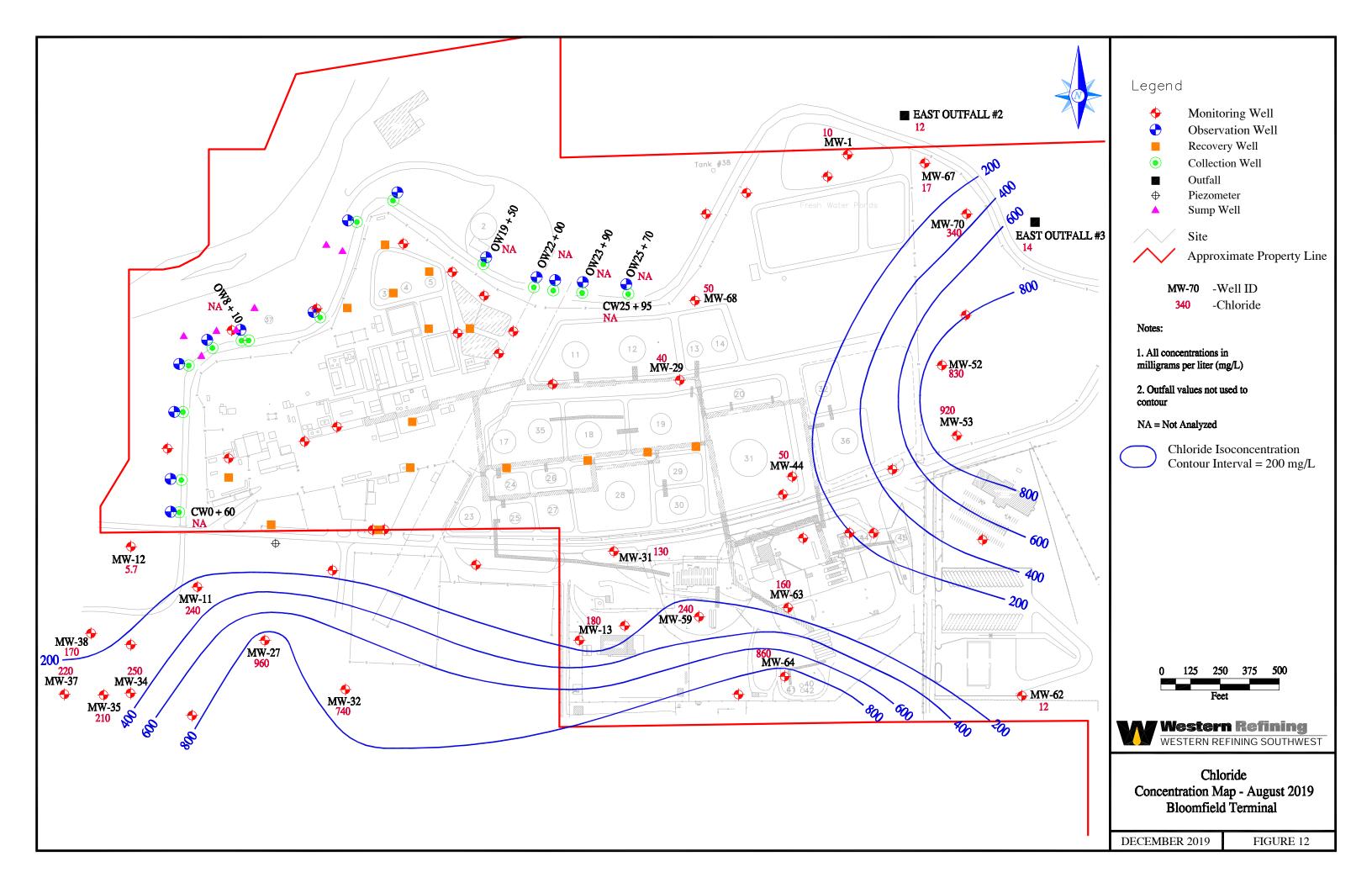


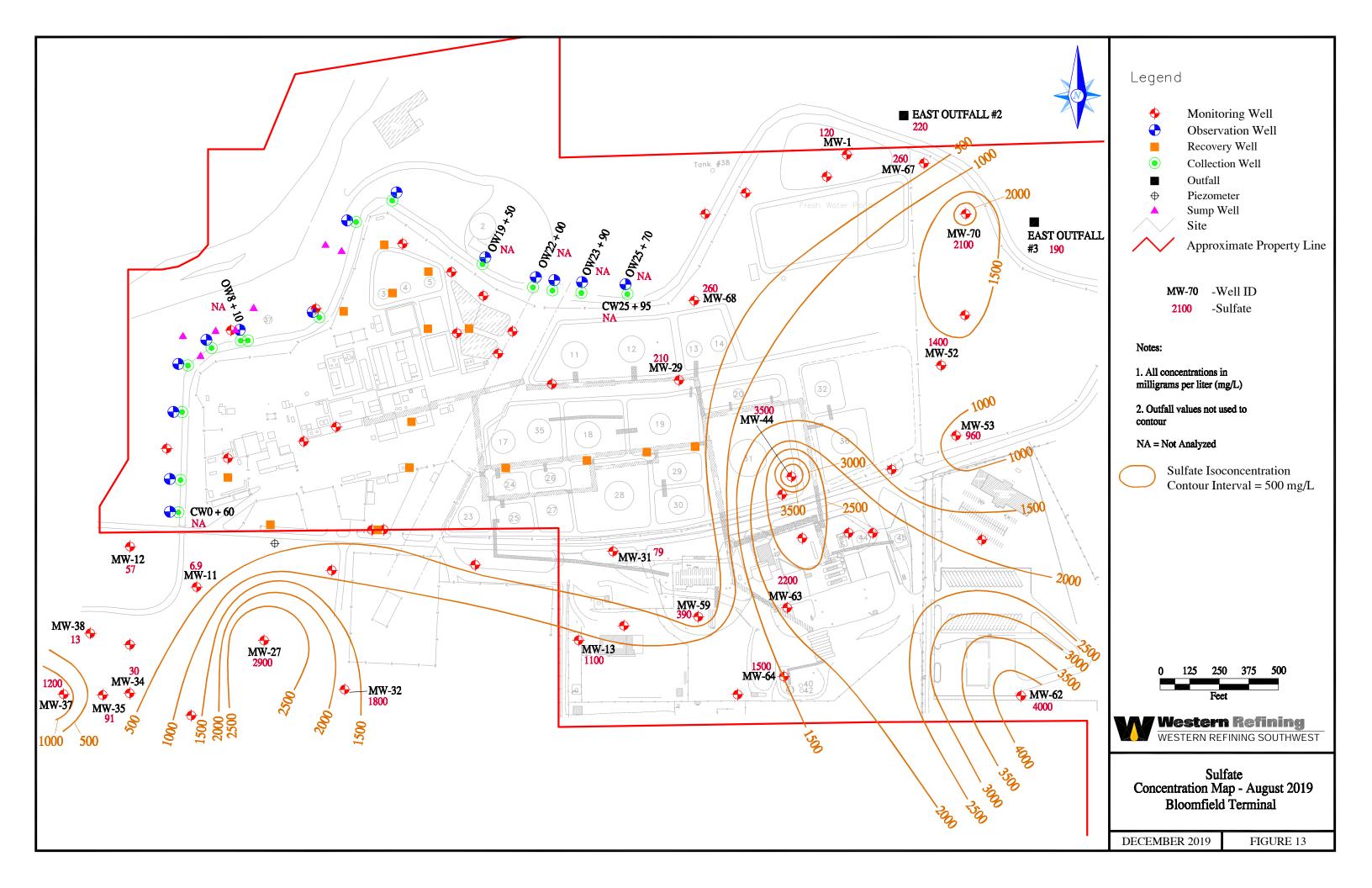


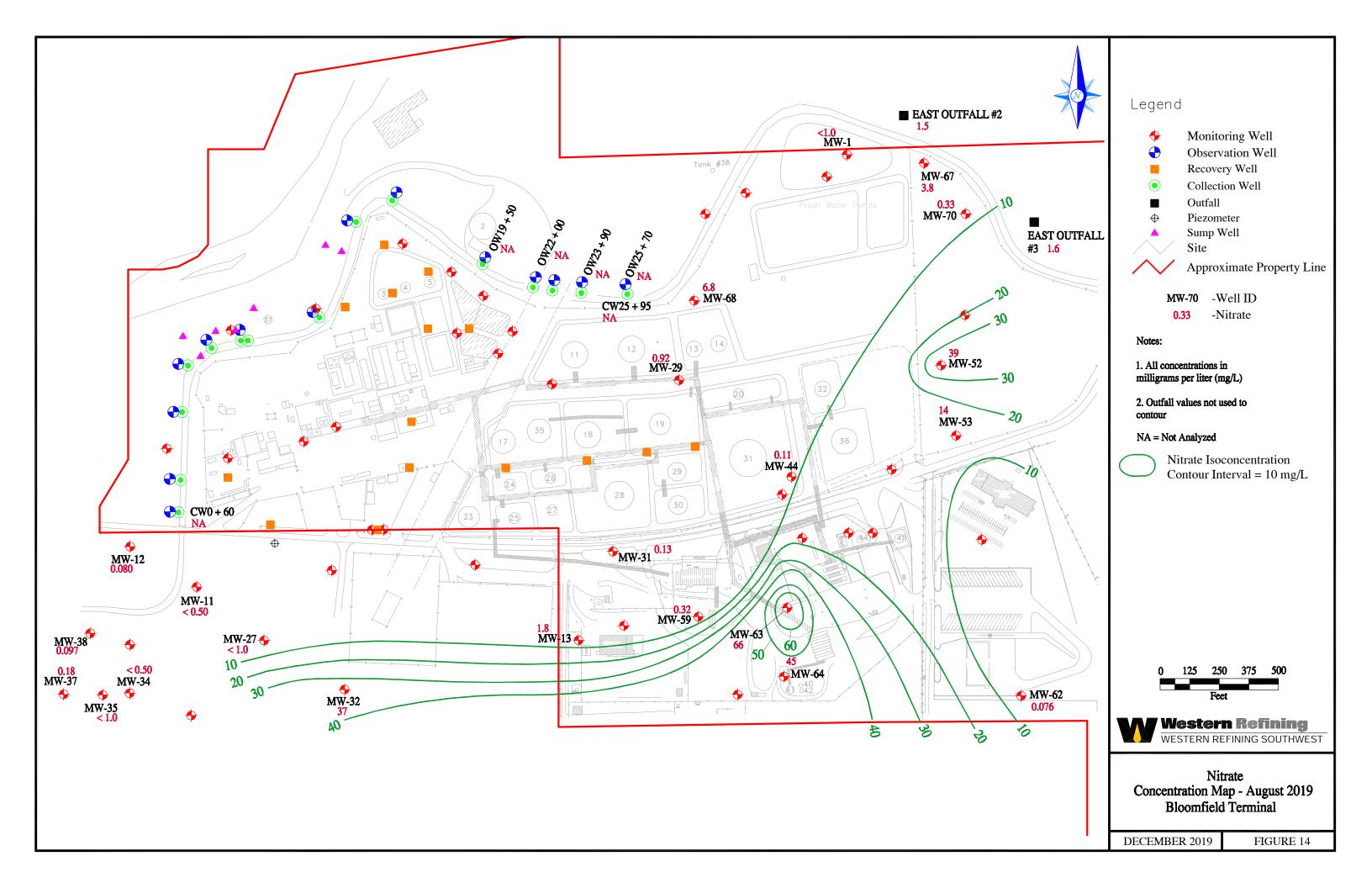


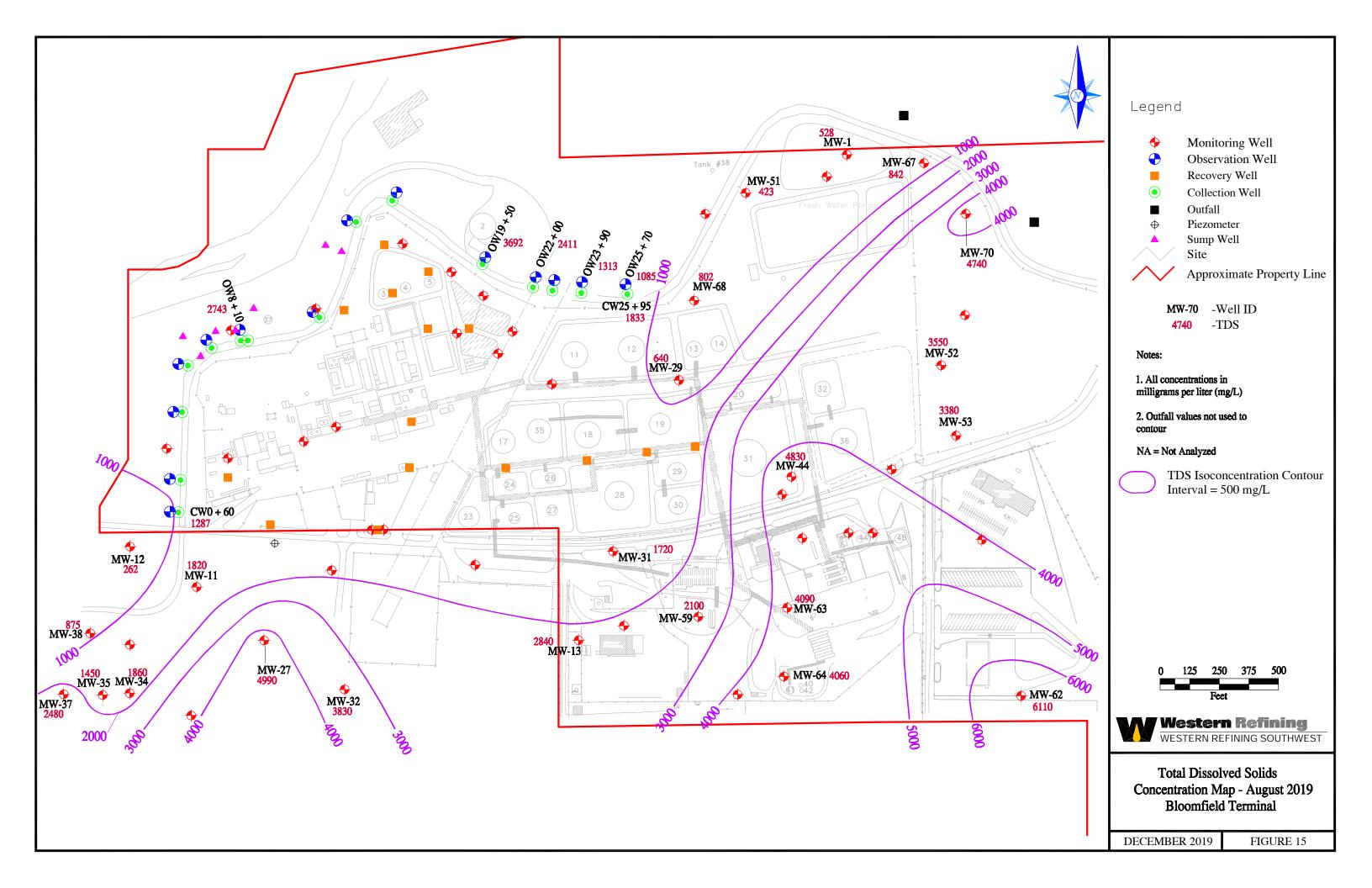


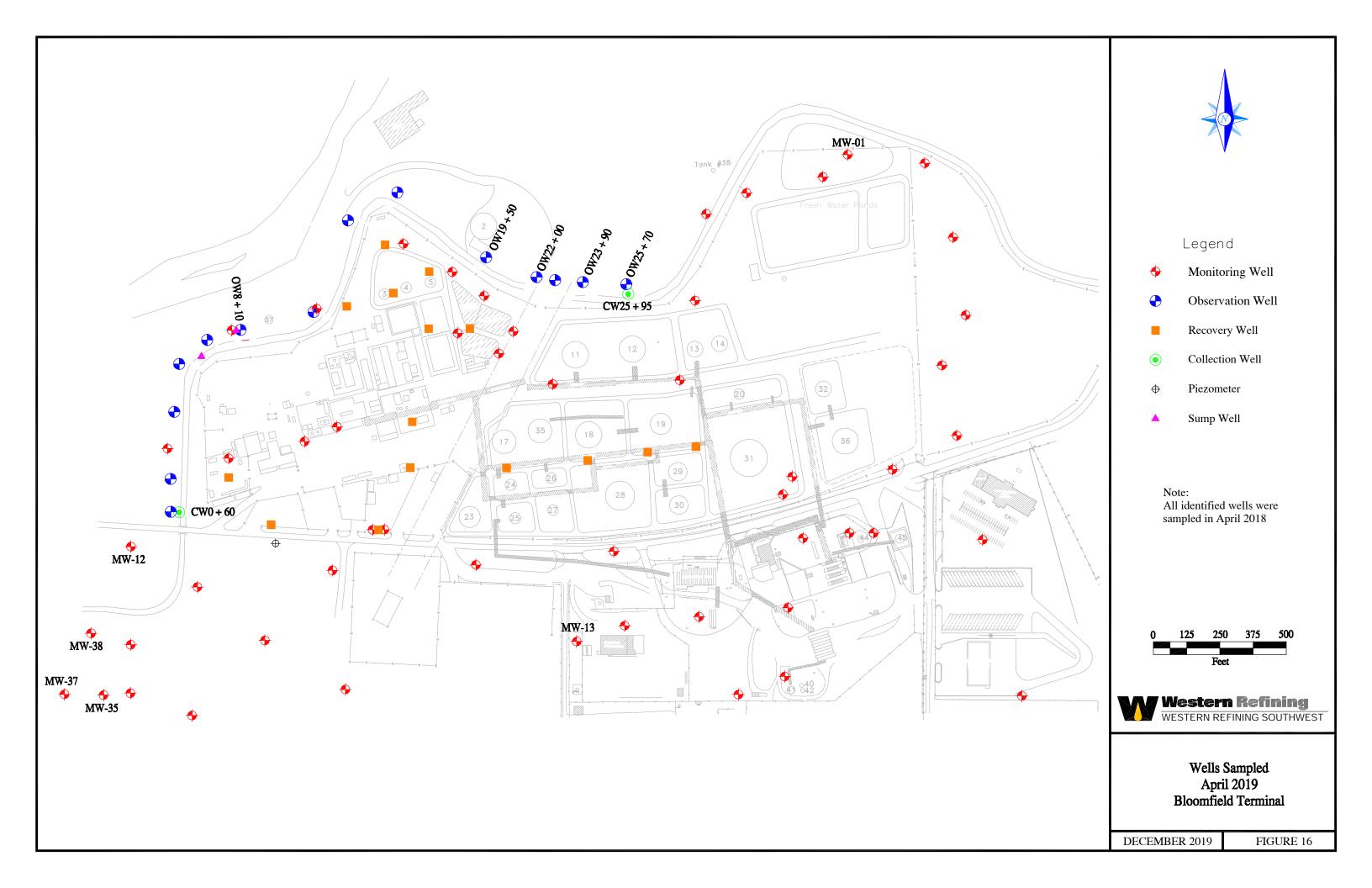


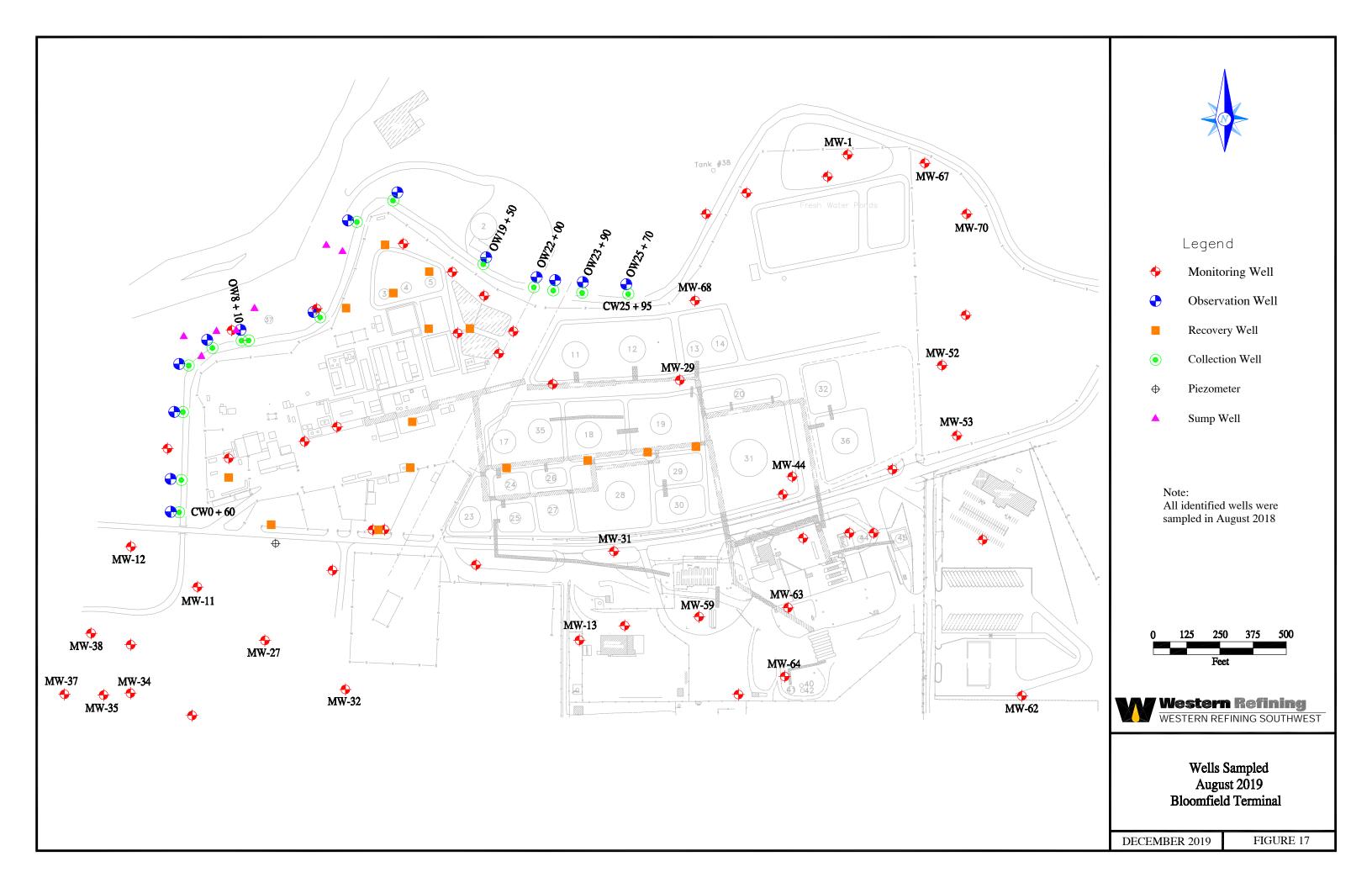












APPENDIX A ANALYTICAL REPORTS (included on attached CD)



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

April 15, 2019

Gregory J. McCartney Western Refining Southwest, Inc. #50 CR 4990

Bloomfield, NM 87413 TEL: (505) 632-4135 FAX: (505) 632-3911

RE: Cross Gradient Wells 4 3 19 OrderNo.: 1904276

Dear Gregory J. McCartney:

Hall Environmental Analysis Laboratory received 6 sample(s) on 4/4/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Received Date: 4/4/2019 8:14:00 AM

Lab Order 1904276

Date Reported: 4/15/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-1

Cross Gradient Wells 4 3 19 **Collection Date:** 4/3/2019 8:45:00 AM **Project:** Matrix: AQUEOUS

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch |
|----------------------------------|--------|----------|------------|----|-----------------------|---------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Analyst | : Irm |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 4/11/2019 12:05:03 PM | 44215 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 4/11/2019 12:05:03 PM | 44215 |
| Surr: DNOP | 121 | 52.7-168 | %Rec | 1 | 4/11/2019 12:05:03 PM | 44215 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst | : NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 4/8/2019 9:43:34 AM | G58973 |
| Surr: BFB | 92.5 | 72.8-125 | %Rec | 1 | 4/8/2019 9:43:34 AM | G58973 |
| EPA METHOD 8260B: VOLATILES | | | | | Analyst | RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 3:19:00 PM | AQ59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 3:19:00 PM | AQ59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 3:19:00 PM | AQ59003 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 3:19:00 PM | AQ59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 3:19:00 PM | AQ59003 |
| Surr: 1,2-Dichloroethane-d4 | 107 | 70-130 | %Rec | 1 | 4/9/2019 3:19:00 PM | AQ59003 |
| Surr: 4-Bromofluorobenzene | 96.0 | 70-130 | %Rec | 1 | 4/9/2019 3:19:00 PM | AQ59003 |
| Surr: Dibromofluoromethane | 104 | 70-130 | %Rec | 1 | 4/9/2019 3:19:00 PM | AQ59003 |
| Surr: Toluene-d8 | 93.2 | 70-130 | %Rec | 1 | 4/9/2019 3:19:00 PM | AQ59003 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Lab ID:

1904276-001

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1904276**

Date Reported: 4/15/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Field Blank #1

Project: Cross Gradient Wells 4 3 19
 Collection Date: 4/3/2019 10:05:00 AM

 Lab ID: 1904276-002
 Matrix: AQUEOUS
 Received Date: 4/4/2019 8:14:00 AM

| Analyses | Result | RL Q | RL Qual Units | | DF Date Analyzed | | |
|--------------------------------|--------|--------|---------------|---|---------------------|---------|--|
| EPA METHOD 8260B: VOLATILES | | | | | Analys | t: RAA | |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 3:43:00 PM | AQ59003 | |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 3:43:00 PM | AQ59003 | |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 3:43:00 PM | AQ59003 | |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 3:43:00 PM | AQ59003 | |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 3:43:00 PM | AQ59003 | |
| Surr: 1,2-Dichloroethane-d4 | 106 | 70-130 | %Rec | 1 | 4/9/2019 3:43:00 PM | AQ59003 | |
| Surr: 4-Bromofluorobenzene | 96.8 | 70-130 | %Rec | 1 | 4/9/2019 3:43:00 PM | AQ59003 | |
| Surr: Dibromofluoromethane | 105 | 70-130 | %Rec | 1 | 4/9/2019 3:43:00 PM | AQ59003 | |
| Surr: Toluene-d8 | 94.7 | 70-130 | %Rec | 1 | 4/9/2019 3:43:00 PM | AQ59003 | |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1904276**

Date Reported: 4/15/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: Equipment Blank #1

Project: Cross Gradient Wells 4 3 19
 Collection Date: 4/3/2019 10:10:00 AM

 Lab ID: 1904276-003
 Matrix: AQUEOUS
 Received Date: 4/4/2019 8:14:00 AM

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch |
|--------------------------------|--------|--------|------------|----|---------------------|---------|
| EPA METHOD 8260B: VOLATILES | | | | | Analys | : RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 4:08:00 PM | AQ59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 4:08:00 PM | AQ59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 4:08:00 PM | AQ59003 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 4:08:00 PM | AQ59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 4:08:00 PM | AQ59003 |
| Surr: 1,2-Dichloroethane-d4 | 106 | 70-130 | %Rec | 1 | 4/9/2019 4:08:00 PM | AQ59003 |
| Surr: 4-Bromofluorobenzene | 98.4 | 70-130 | %Rec | 1 | 4/9/2019 4:08:00 PM | AQ59003 |
| Surr: Dibromofluoromethane | 103 | 70-130 | %Rec | 1 | 4/9/2019 4:08:00 PM | AQ59003 |
| Surr: Toluene-d8 | 96.4 | 70-130 | %Rec | 1 | 4/9/2019 4:08:00 PM | AQ59000 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode

Lab Order **1904276**

Date Reported: 4/15/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-35

Project: Cross Gradient Wells 4 3 19
 Collection Date: 4/3/2019 2:30:00 PM

 Lab ID: 1904276-004
 Matrix: AQUEOUS
 Received Date: 4/4/2019 8:14:00 AM

| Analyses | Result | RL Q | RL Qual Units | | Date Analyzed | Batch |
|--------------------------------|--------|--------|---------------|---|---------------------|---------|
| EPA METHOD 8260B: VOLATILES | | | | | Analys | : RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 4:32:00 PM | AQ59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 4:32:00 PM | AQ59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 4:32:00 PM | AQ59003 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 4:32:00 PM | AQ59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 4:32:00 PM | AQ59003 |
| Surr: 1,2-Dichloroethane-d4 | 103 | 70-130 | %Rec | 1 | 4/9/2019 4:32:00 PM | AQ59003 |
| Surr: 4-Bromofluorobenzene | 97.3 | 70-130 | %Rec | 1 | 4/9/2019 4:32:00 PM | AQ59003 |
| Surr: Dibromofluoromethane | 102 | 70-130 | %Rec | 1 | 4/9/2019 4:32:00 PM | AQ59003 |
| Surr: Toluene-d8 | 96.4 | 70-130 | %Rec | 1 | 4/9/2019 4:32:00 PM | AQ59003 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode

Lab Order **1904276**

Date Reported: 4/15/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-13

Project: Cross Gradient Wells 4 3 19 **Collection Date:** 4/3/2019 9:55:00 AM

Lab ID: 1904276-005 **Matrix:** AQUEOUS **Received Date:** 4/4/2019 8:14:00 AM

| Analyses | Result RL Qual Uni | | | | Date Analyzed | Batch |
|--------------------------------|--------------------|--------|------|---|---------------------|---------|
| EPA METHOD 8260B: VOLATILES | | | | | Analys | :: RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 4:56:00 PM | AQ59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 4:56:00 PM | AQ59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 4:56:00 PM | AQ59003 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 4:56:00 PM | AQ59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 4:56:00 PM | AQ59003 |
| Surr: 1,2-Dichloroethane-d4 | 100 | 70-130 | %Rec | 1 | 4/9/2019 4:56:00 PM | AQ59003 |
| Surr: 4-Bromofluorobenzene | 98.5 | 70-130 | %Rec | 1 | 4/9/2019 4:56:00 PM | AQ59003 |
| Surr: Dibromofluoromethane | 99.1 | 70-130 | %Rec | 1 | 4/9/2019 4:56:00 PM | AQ59003 |
| Surr: Toluene-d8 | 94.9 | 70-130 | %Rec | 1 | 4/9/2019 4:56:00 PM | AQ59003 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1904276**

Date Reported: 4/15/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Trip Blank

Project: Cross Gradient Wells 4 3 19 **Collection Date:**

Lab ID: 1904276-006 **Matrix:** TRIP BLANK **Received Date:** 4/4/2019 8:14:00 AM

| Analyses | Result | RL Q | ual Units | DF | Date Analyzed | Batch |
|--------------------------------|--------|--------|-----------|----|----------------------|---------|
| EPA METHOD 8260B: VOLATILES | | | | | Analys | t: RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 5:20:00 PM | AQ59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 5:20:00 PM | AQ59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 5:20:00 PM | AQ59003 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 5:20:00 PM | AQ59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 5:20:00 PM | AQ59003 |
| Surr: 1,2-Dichloroethane-d4 | 103 | 70-130 | %Rec | 1 | 4/9/2019 5:20:00 PM | AQ59003 |
| Surr: 4-Bromofluorobenzene | 98.5 | 70-130 | %Rec | 1 | 4/9/2019 5:20:00 PM | AQ59003 |
| Surr: Dibromofluoromethane | 102 | 70-130 | %Rec | 1 | 4/9/2019 5:20:00 PM | AQ59003 |
| Surr: Toluene-d8 | 95.1 | 70-130 | %Rec | 1 | 4/9/2019 5:20:00 PM | AQ59000 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Client:

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc.

0.31

0.2500

WO#: **1904276**

15-Apr-19

| Project: Cross Gra | adient Wel | ls 4 3 1 | 9 | | | | | | | |
|--------------------------------|----------------|------------------|-----------|-------------|-----------------|-----------|--------------|---------|----------|------|
| Sample ID: LCS-44215 | SampT | ype: LC | s | Tes | tCode: El | PA Method | 8015D: Diese | I Range | | |
| Client ID: LCSW | Batch | 1D: 44 | 215 | F | RunNo: 5 | 9076 | | | | |
| Prep Date: 4/9/2019 | Analysis D | ate: 4/ | 11/2019 | 5 | SeqNo: 1 | 988558 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 3.1 | 0.40 | 2.500 | 0 | 125 | 66.7 | 148 | | | |
| Surr: DNOP | 0.29 | | 0.2500 | | 114 | 52.7 | 168 | | | |
| Sample ID: MB-44215 | SampT | ype: ME | BLK | Tes | tCode: El | PA Method | 8015D: Diese | I Range | | |
| Client ID: PBW | Batch | 1D: 44 | 215 | F | RunNo: 5 | 9076 | | | | |
| Prep Date: 4/9/2019 | Analysis D | ate: 4/ | 11/2019 | 5 | SeqNo: 1 | 988559 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | ND | 0.40 | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | | | | | | | |
| Surr: DNOP | 0.58 | | 0.5000 | | 116 | 52.7 | 168 | | | |
| Sample ID: 1904276-001BMS | SampT | ype: M \$ | 6 | Tes | tCode: El | PA Method | 8015D: Diese | I Range | | |
| Client ID: MW-1 | Batch | 1D: 44 | 215 | F | RunNo: 5 | 9076 | | | | |
| Prep Date: 4/9/2019 | Analysis D | ate: 4/ | 11/2019 | 5 | SeqNo: 1 | 988656 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 3.3 | 0.40 | 2.500 | 0 | 132 | 68.3 | 147 | | | |
| Surr: DNOP | 0.32 | | 0.2500 | | 127 | 52.7 | 168 | | | |
| Sample ID: 1904276-001BMS | D SampT | ype: M \$ | SD | Tes | tCode: El | PA Method | 8015D: Diese | I Range | | |
| Client ID: MW-1 | Batch | 1D: 44 | 215 | F | RunNo: 5 | 9076 | | | | |
| Prep Date: 4/9/2019 | Analysis D | ate: 4/ | 11/2019 | 5 | SeqNo: 1 | 988657 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 3.3 | 0.40 | 2.500 | 0 | 134 | 68.3 | 147 | 1.07 | 20 | |

Qualifiers:

Surr: DNOP

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

124

52.7

168

0

0

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904276**

15-Apr-19

Client: Western Refining Southwest, Inc.

Project: Cross Gradient Wells 4 3 19

Sample ID: RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBW Batch ID: G58973 RunNo: 58973

Prep Date: Analysis Date: 4/8/2019 SeqNo: 1984235 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 0.050

Surr: BFB 18 20.00 92.4 72.8 125

Sample ID: 2.5UG GRO LCS SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSW Batch ID: G58973 RunNo: 58973

Prep Date: Analysis Date: 4/8/2019 SeqNo: 1984237 Units: mg/L

LowLimit Analyte Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 77.7 0.46 0.050 0.5000 0 91.0 130 Surr: BFB 21 20.00 107 72.8 125

Qualifiers:

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Client:

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc.

WO#: **1904276**

15-Apr-19

| Project: Cro | oss Gradient We | lls 4 3 1 | 9 | | | | | | | |
|----------------------|-----------------|-----------------|-----------|-------------|-----------|-----------|-------------|--------|----------|------|
| Sample ID: 100ng lcs | Samp | Type: LC | s | Tes | tCode: El | PA Method | 8260B: VOL | ATILES | | |
| Client ID: LCSW | F | RunNo: 5 | 9003 | | | | | | | |
| Prep Date: | Analysis [| Date: 4/ | 9/2019 | 8 | SeqNo: 1 | 985935 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 22 | 1.0 | 20.00 | 0 | 111 | 70 | 130 | | | |

| Allalyte | Nesuit | I QL | of it value | of Killer var | /OINE C | LOWLIIIII | riigiiLiiiii | /01X1 D | INI DEIIIII | Quai |
|-----------------------------|--------|----------|-------------|---------------|-----------|-----------|--------------|---------|-------------|------|
| Benzene | 22 | 1.0 | 20.00 | 0 | 111 | 70 | 130 | | | |
| Toluene | 21 | 1.0 | 20.00 | 0 | 103 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 11 | | 10.00 | | 108 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.9 | | 10.00 | | 99.2 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 11 | | 10.00 | | 105 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.5 | | 10.00 | | 95.0 | 70 | 130 | | | |
| Sample ID: rb | Samp | Гуре: МЕ | BLK | Tes | tCode: EI | PA Method | 8260B: VOL | ATILES | | |

| Client ID: PBW | Batch | n ID: AC | 59003 | F | RunNo: 5 | 9003 | | | | | | | | | |
|--------------------------------|------------|----------|-----------|-------------|-----------|----------|-------------|------|----------|------|--|--|--|--|--|
| Prep Date: | Analysis D | ate: 4/ | 9/2019 | S | SeqNo: 19 | 985936 | Units: µg/L | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | | | | | |
| Benzene | ND | 1.0 | | | | | | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | | | | | | |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | | | | | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 11 | | 10.00 | | 107 | 70 | 130 | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 9.5 | | 10.00 | | 95.2 | 70 | 130 | | | | | | | | |
| Surr: Dibromofluoromethane | 11 | | 10.00 | | 106 | 70 | 130 | | | | | | | | |
| Surr: Toluene-d8 | 9.5 | | 10.00 | | 95.1 | 70 | 130 | | | | | | | | |

| Sample ID: 1904276-001ams | SampT | ype: MS | 3 | Tes | tCode: El | PA Method | 8260B: VOLA | ATILES | | |
|-----------------------------|-------------------------|----------|-----------|-------------|-------------------|-----------|-------------|--------|----------|------|
| Client ID: MW-1 | Batch | n ID: AC | 59003 | F | RunNo: 5 9 | 9003 | | | | |
| Prep Date: | Analysis Date: 4/9/2019 | | | 9 | SeqNo: 19 | 985937 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 21 | 1.0 | 20.00 | 0 | 107 | 70 | 130 | | | |
| Toluene | 21 | 1.0 | 20.00 | 0 | 103 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 10 | | 10.00 | | 104 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.8 | | 10.00 | | 98.1 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 10 | | 10.00 | | 102 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.6 | | 10.00 | | 95.9 | 70 | 130 | | | |

| Sample ID: 1904276-001amsd | SampTy | ре: МS | SD | TestCode: EPA Method 8260B: VOLATILES | | | | | | | | | |
|----------------------------|-------------|---------------|-----------|---------------------------------------|----------|----------|-------------|------|----------|------|--|--|--|
| Client ID: MW-1 | Batch | ID: AC | 59003 | RunNo: 59003 | | | | | | | | | |
| Prep Date: | Analysis Da | te: 4/ | 9/2019 | S | SeqNo: 1 | 985938 | Units: µg/L | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | | | |
| Benzene | 22 | 1.0 | 20.00 | 0 | 110 | 70 | 130 | 2.44 | 20 | | | | |

Qualifiers:

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

8 % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904276**

15-Apr-19

Client: Western Refining Southwest, Inc.

Project: Cross Gradient Wells 4 3 19

| Sample ID: 1904276-001amsd | SampT | уре: МS | SD | Tes | tCode: El | PA Method | 8260B: VOL | ATILES | | | | | | | | |
|-----------------------------|------------|------------------|-----------|---------------------|-----------|-----------|-------------|--------|----------|------|--|--|--|--|--|--|
| Client ID: MW-1 | Batch | n ID: AQ | 59003 | RunNo: 59003 | | | | | | | | | | | | |
| Prep Date: | Analysis D | ate: 4/ 9 | 9/2019 | S | SeqNo: 1 | 985938 | Units: µg/L | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | | | | | | |
| Toluene | 21 | 1.0 | 20.00 | 0 | 103 | 70 | 130 | 0.0678 | 20 | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 11 | | 10.00 | | 107 | 70 | 130 | 0 | 0 | | | | | | | |
| Surr: 4-Bromofluorobenzene | 10 | | 10.00 | | 101 | 70 | 130 | 0 | 0 | | | | | | | |
| Surr: Dibromofluoromethane | 10 | | 10.00 | | 105 | 70 | 130 | 0 | 0 | | | | | | | |
| Surr: Toluene-d8 | 9.6 | | 10.00 | | 95.9 | 70 | 130 | 0 | 0 | | | | | | | |

Qualifiers:

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw Work Order Number: 1904276 RcptNo: 1 Received By: Yazmine Garduno 4/4/2019 8:14:00 AM Completed By: Erin Melendrez 4/4/2019 11:34:15 AM Reviewed By: Chain of Custody 1. Is Chain of Custody complete? Yes 🗸 No 🗌 Not Present 2. How was the sample delivered? Courier Log In 3. Was an attempt made to cool the samples? Yes V No NA 🗌 4. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 NA 🗌 5. Sample(s) in proper container(s)? Yes 🗸 No Sufficient sample volume for indicated test(s)? Yes 🗸 No 🗌 7. Are samples (except VOA and ONG) properly preserved? Yes No 🗌 8. Was preservative added to bottles? Yes No 🗸 NA 🗌 9. VOA vials have zero headspace? Yes 🗸 No 🗌 No VOA Vials 10. Were any sample containers received broken? Yes 🗌 No 🗸 # of preserved bottles checked 11. Does paperwork match bottle labels? Yes 🗸 No 🗌 for pH: (Note discrepancies on chain of custody) (<2 or >12 unless noted) Adjusted? Yes 🗸 12. Are matrices correctly identified on Chain of Custody? No 🗌 13. Is it clear what analyses were requested? Yes 🗸 No 🗌 14. Were all holding times able to be met? Yes 🗸 Checked by: No 🔲 (If no, notify customer for authorization.) Special Handling (if applicable) 15. Was client notified of all discrepancies with this order? Yes No 🗌 NA 🗸 Person Notified: Date: By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: 16. Additional remarks: 17. Cooler Information Cooler No Temp °C Condition Seal Date Seal Intact Seal No Signed By 2.3 Good Yes 3.1 Good Yes

| | ENVIRONMENTAL | ANALYSIS LABORATORY | | | | | | | 1) | / Jo |) Y) | Air Bubbles | | | | | | | | | | See Analytical Methods and Target Analytes. | | | |
|-------------------------|--|----------------------|-----------------------------|------------------------------|-------------------------|------------------|-------------------|-----------------------------------|----------------------|------------------|---------------------|-------------------------|------------------|-------------------|--------------|-------------------------------|----------|--|---|--|---|---|---------------|---------------|-----------|
| <u>[</u> | | 5 | 00 | 3 | | _ | | | | | | | | | | | | | | | | rget | | | |
| * | Σ | ָבָּׁ בָּ | Albuquerane NM 87109 | 4107 | | | | | | (A | ΟΛ- | -imə2) 0728 | | | | | | | | | | Tall | | | |
| 1 | 0 5 | MALYSIS LABO | | Fax 505-345-4107 | Jest | ٨ | luo : | 38T | M, X | | | 8260B (VO | - | | X | X | | | | | | anc | | | |
| | | | | 505 | Regu | | s'aC | 5 PC | 3083 | 3 / 5 | səpi | oiteaq 1808 | | | | | | | | | | spor | | | = |
| | 2 | | | Fax | Analysis Request | | ([†] OS | S'*O | d,₅C |)Ν' ^ε | ON' | IO,7) anoinA | | | | | | | | | | Meth | | | |
| | Щ | | į , | | Anal | | | | | | | RCRA 8 Me | | | | | | | | | | cal | | | |
| | HALL | | 4901 Hawkins NF | Tel. 505-345-3975 | | | | (SN | | | | 01E8) HAG | | | | | | | | | | alyti | | | |
| | I | | wkins | -345 | | | | | | | | TPH (Metho | | | | | | | | | | e An | | | |
| | | | T ų | 505 | | - | IKO | N/O | - | | | TPH 8015B | × | × | | | | | | | - | | | | |
| | | | 490, | Tel. | | - | | | | | | BTM+X3T8 | | | | | | | | | | arks: | | _ | |
| | | | | | | | | | | | | BTM+X3T8 | | | | | | | | | | Remarks: | | 9.14 | MAIIR |
| | | 1 | | | | | | mo | 5 | | | 9, | | | | | | | | | | - | ١, | 7 | 10 U |
| | | Vells | | | | | | um.c | 919-561-7055 | | | HEAL NO. | | | | | | | | | | Time | S F | | 7 |
| | | nt V | | ıt | | | | role | 561- | | 3.70 | HEA JAUT | 5 | 1 | 25 | 7 |) | | | | | Date | 15/19 | V | |
| | | adie | 6 | Eve | 66 | | > | npet | 119- | º □ | 3. | O O | 9 | | 7 | 7 | | | | | | ۵ 15 | ,, | = | |
| | □ Rush | G | - | nual | 8139 | | tne | atho | | NO.0380 | 2 | tive | | | , | | | | | | | - | 7 | 7 | |
| le. | | Cross-Gradient Wells | 4.3 | Project #: Semi-Annual Event | 4500081399 | | McCartney | gjmccartney@marathonpetroleum.com | Sampler: Tracy Payne | X Yes | Sample Temperature: | Preservative Type | 무 | Neat | HCL | HCL | | | | | | - | 3 | Contr | |
| Ţ | p | | | em | # 4 | nageı | ٦. | ley@ | raς | 1 | nper | | Ş | | | | | | | | | | z | | |
| Turn-Around Time: | X Standard | Project Name: | | # # 7 | HEAL PO# | Project Manager: | Gregory J. | cartr | ler: T | i ii | le Tei | Container Type and # | 40ml VOA-5 | 250 ml amber-1 | 40 ML VOA: 5 | VOA | | | | | | ed by: | | S. S. | |
| Turn, | × | Projec | Date: | Projec | HEA | Projec | Greg | gjmc | Samp | On Ice: | Samp | Con | 10ml | 25(amb | 10 ML | 오 | | | | | | Received by: | 7 | | \supset |
| | | | Τ | | | | | | - 0, | | 0, | | 7 | | 414 | EQUIPMENT BLANK #1 40 A VOA-5 | | | | | | <u> </u> | | | |
| | t, n | | | _ | | | | lidati | | | | est | | | X Y | PNK | | | | | | | | | |
| P. C. | Wes | | | 7413 | | | | ıll Va | | | | yequ | MW-1 | MW-1 | MAN | 81 | | | | | | | | 4 | |
| 02 | 딅 | | | ₩ W | | | | 4 (F | | | | e F | M | M | D 8 | TENT | | | 2 | | | | 1 | Made | |
| þ | So | inal | 06 | Z, | 338 | | | X Level 4 (Full Validation) | | | | Sample Request ID | | | FIELD BLANK | UIP | | | | | | 1 | | - | |
| | nin (| erm | 3 49 | field | 1-2 | | | × | | | | S | | | Ĺ | A A | | | | | | kg pk | | E 27. | |
| f-Ci | n Refi | ield T | 50 CF | Bloomfield, NM 87413 | 419-421-2338 | | | | | EXCEL | | Matrix | H ₂ O | H ₂ 0 | H20 | H20 | | | | | | Relinquished by: | Jelingiiiched | Muchul. | |
| Chain-of-Custody Record | Client: Western Refining Southwest, Inc. | Bloomfield Terminal | Mailing Address: 50 CR 4990 | | 4 | 3X#: | kage: | Ģ | | | | Time | 255c | 27 | 500 | 10101 | | | | | | | 0 | 0 | |
| Ch | S | B | g Ad | | #: | or F | 3 Pac | andar | her | EDD (Type) | | | 7 % | 88 | | | \dashv | | | | | | Ť | | |
| _ | Client | | Mailin | | Phone #: | email or Fax# | QA/QC Package: | □ Standard | □ Other | X ED | | Date | 43/14 | 5780 b1/5/h | 4/3/19 | 4/3/19 | | | | | | Date: | Jate. | 4319 | - |

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| Client: V | Veste | rn Refii | Western Refining Southwest, Inc. | X Standard Rush | ANALYSIS I ABORATORY |
| Ш | 3loom | Bloomfield Terminal | erminal | Project Name: Downgradient Wells | į |
| Mailing Address: | ddress | 50 CR 4990 | | Date: 4-3-19 | 4901 Hawkins NE - Albuaueraue, NM 87109 |
| | | Bloom | Bloomfield, NM 87413 | Project #: Semi-Annual Event | 10 |
| Phone #: | | 419-421-2338 | 1-2338 | HEAL PO# 4500081399 | nalysis |
| email or Fax# | -ax#: | | | Project Manager: | |
| QA/QC Package: | ckage: | | | Gregory J. McCartney | SB,e |
| □ Standard | ard | | X Level 4 (Full Validation) | gjmccartney@marathonpetroleum.com | (S0Z) |
| □ Other | | | | Sampler: Tracy Payne 919-561-7055 | 1 (G 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) |
| X EDD (Type) | Type)_ | EXCEL | | On Ice: A Yes | 18. 04. 04. 04. 27(37) (A) |
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| | Time | Matrix | Sample Request ID | Container Preservative HEAL No. Type and # | BTEX+MTB BTEX+MTB TPH 8015B TPH (Methorens (F,Cl) Anions (|
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| Date: Tir | Time: 1530 | Relinquished by: | , (| Received by: Muth July 4/3/19 1536 | Remarks: See Analytical Methods and Target Analytes. |
| | Time: [8] | Refinquished by: | of over | by: O COUNTRY | A:W W/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/ |
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| | | \\ | www.hallenvironmental.com | Alb | ш | Analysis | | | | | | stals | RCRA 8 Me | | | | | | | | | | al N | | |
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| | | | | 4901 Hawkins NE | Tel. 505-345-3975 | | _ | | | | | | 83108 H9T | | | | | | | | | | | | |
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| ١. | | □ Rush | Cross-Gradient Wells | 3 | Project #: Semi-Annual Event | 4500081399 | | McCartney | gjmccartney@marathonpetroleum.com | Payı | On Ice: Yes | ure: | Preservative Type | 무 | ہے ا | | | | | | | | Sel | 1/1 | - |
| Į. | <u> </u> | | | J | mi-/ | | ger: | Mc | @ | cy I | X | érat | Pres T | - | 꿒 | | | | | | | | ω_{ℓ} | 3- | - |
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| Chain of Custody Doord | | Western Refining Southwest, Inc. | Bloomfield Terminal | Mailing Address: 50 CR 4990 | | | .#X | age: | ~ | | pe) | | Time | 0455 | 1 | | | | | | | | Q | | |
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TABLE 2

Analytical Methods and Target Analytes Facility-Wide Groundwater Monitoring Plan - June 2018 Western Refining Southwest, Inc. - Bloomfield Refinery

| VOCs (EPA Method 8260B) (1) - Target List Benzene Toluene Ethylbenzene Xylenes Methyl tert butyl ether (MTBE) SVOCs - (EPA Method 8270) - Method List TPH-GRO (EPA Method 8015B) - Gasoline Range Organics TPH-DRO (EPA Method 8015B) - Diesel Range Organics - Motor Oil Range Organics - Motor Oil Range Organics Total Carbon Dioxide (Laboratory Calculated) - Dissolved CO2 Specific Conductivity (EPA Method 120.1 or field measurement) - Specific conductance TDS (EPA Method 160.1 or field measurement) - Total dissolved solids General Chemistry - Anions (EPA Method 300.0) Fluoride Chloride Bromide Nitrogen, Nitrite (as N) |
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| Fluoride Chloride Bromide Nitrogen, Nitrite (as N) |
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| Bromide Nitrogen, Nitrite (as N) |
| Nitrogen, Nitrite (as N) |
| |
| VI. VI. 2 VI. |
| Nitrogen, Nitrate (as N) |
| Phosphorous, Orthophosphate (As P) |
| Sulfate |
| General Chemistry - Alkalinity (EPA Method 310.1) |
| Alkalinity, Total |

Total Recoverable Metals (EPA Method 6010B/7470)

- Target List (not applicable to River Terrace Sampling Events)

Arsenic Lead
Barium Mercury
Cadmium Selenium
Chromium Silver

- Target List (for River Terrace Sampling Events Only)

Lead

Mercury (DW-1 ONLY)

Dissolved Metals (EPA Method 6010B / 7470)

- Target List (for Refinery Complex, Outfalls, and River)

Arsenic Manganese Barium Mercury Cadmium Potassium Calcium Selenium Chromium Silver Copper Sodium Iron Uranium Lead Zinc

TPH = total petroleum hydrocarbons

GRO = gasoline range organics

VOCs = volatile organic compounds

Magnesium

DRO = diesel range organics

TDS = total dissolved solids

NOTES:

Carbonate Bicarbonate

- (1) VOCs Target List for River Terrace samples are analyzed by EPA Method 8021B per NMED's letter Approval with Direction dated June 16, 2009.
- (2) Target List for San Juan River Terrace Monitoring Wells and Piezomenter Wells only, per the River Terrace Bioventing System Monitoring Plan.



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

May 02, 2019

Gregory J. McCartney
Western Refining Southwest, Inc.
#50 CR 4990

Bloomfield, NM 87413 TEL: (505) 632-4135 FAX (505) 632-3911

RE: NBB Collection Wells OrderNo.: 1904357

Dear Gregory J. McCartney:

Hall Environmental Analysis Laboratory received 8 sample(s) on 4/5/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Date Reported: 5/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: CW 0+60

 Project:
 NBB Collection Wells
 Collection Date: 4/3/2019 3:55:00 PM

 Lab ID:
 1904357-001
 Matrix: AQUEOUS
 Received Date: 4/5/2019 8:30:00 AM

| Analyses | Result | RL (| Qual | Units | DF | Date Analyzed |
|---------------------------------------|--------|----------|------|-------|----|----------------------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | Analyst: Irm |
| Diesel Range Organics (DRO) | 1.7 | 0.40 | | mg/L | 1 | 4/11/2019 1:11:21 PM |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | mg/L | 1 | 4/11/2019 1:11:21 PM |
| Surr: DNOP | 119 | 52.7-168 | | %Rec | 1 | 4/11/2019 1:11:21 PM |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | 3.1 | 0.050 | | mg/L | 1 | 4/8/2019 10:06:28 AM |
| Surr: BFB | 1910 | 72.8-125 | S | %Rec | 1 | 4/8/2019 10:06:28 AM |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | | Analyst: RAA |
| Benzene | 2.1 | 1.0 | | μg/L | 1 | 4/9/2019 5:44:00 PM |
| Toluene | ND | 1.0 | | μg/L | 1 | 4/9/2019 5:44:00 PM |
| Ethylbenzene | 4.0 | 1.0 | | μg/L | 1 | 4/9/2019 5:44:00 PM |
| Methyl tert-butyl ether (MTBE) | 1.2 | 1.0 | | μg/L | 1 | 4/9/2019 5:44:00 PM |
| Xylenes, Total | 1.8 | 1.5 | | μg/L | 1 | 4/9/2019 5:44:00 PM |
| Surr: 1,2-Dichloroethane-d4 | 93.5 | 70-130 | | %Rec | 1 | 4/9/2019 5:44:00 PM |
| Surr: 4-Bromofluorobenzene | 96.3 | 70-130 | | %Rec | 1 | 4/9/2019 5:44:00 PM |
| Surr: Dibromofluoromethane | 96.7 | 70-130 | | %Rec | 1 | 4/9/2019 5:44:00 PM |
| Surr: Toluene-d8 | 163 | 70-130 | S | %Rec | 1 | 4/9/2019 5:44:00 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 5/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-12

Project:NBB Collection WellsCollection Date: 4/4/2019 8:30:00 AMLab ID:1904357-002Matrix: AQUEOUSReceived Date: 4/5/2019 8:30:00 AM

| Analyses | Result | RL Qu | al Units | DF | Date Analyzed |
|---------------------------------------|--------|----------|----------|----|----------------------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Analyst: Irm |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 4/11/2019 1:33:33 PM |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 4/11/2019 1:33:33 PM |
| Surr: DNOP | 114 | 52.7-168 | %Rec | 1 | 4/11/2019 1:33:33 PM |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 4/8/2019 10:29:21 AM |
| Surr: BFB | 85.3 | 72.8-125 | %Rec | 1 | 4/8/2019 10:29:21 AM |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst: RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 6:08:00 PM |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 6:08:00 PM |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 6:08:00 PM |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 6:08:00 PM |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 6:08:00 PM |
| Surr: 1,2-Dichloroethane-d4 | 103 | 70-130 | %Rec | 1 | 4/9/2019 6:08:00 PM |
| Surr: 4-Bromofluorobenzene | 97.9 | 70-130 | %Rec | 1 | 4/9/2019 6:08:00 PM |
| Surr: Dibromofluoromethane | 101 | 70-130 | %Rec | 1 | 4/9/2019 6:08:00 PM |
| Surr: Toluene-d8 | 94.7 | 70-130 | %Rec | 1 | 4/9/2019 6:08:00 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 21

Date Reported: 5/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-38

Project:NBB Collection WellsCollection Date: 4/4/2019 8:50:00 AMLab ID:1904357-003Matrix: AQUEOUSReceived Date: 4/5/2019 8:30:00 AM

| Analyses | Result | RL Qu | al Units | DF | Date Analyzed |
|---------------------------------------|--------|----------|----------|----|----------------------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Analyst: Irm |
| Diesel Range Organics (DRO) | 0.43 | 0.40 | mg/L | 1 | 4/11/2019 1:55:35 PM |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 4/11/2019 1:55:35 PM |
| Surr: DNOP | 116 | 52.7-168 | %Rec | 1 | 4/11/2019 1:55:35 PM |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 4/8/2019 10:52:11 AM |
| Surr: BFB | 86.3 | 72.8-125 | %Rec | 1 | 4/8/2019 10:52:11 AM |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst: RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 6:32:00 PM |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 6:32:00 PM |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 6:32:00 PM |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 6:32:00 PM |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 6:32:00 PM |
| Surr: 1,2-Dichloroethane-d4 | 103 | 70-130 | %Rec | 1 | 4/9/2019 6:32:00 PM |
| Surr: 4-Bromofluorobenzene | 98.8 | 70-130 | %Rec | 1 | 4/9/2019 6:32:00 PM |
| Surr: Dibromofluoromethane | 97.3 | 70-130 | %Rec | 1 | 4/9/2019 6:32:00 PM |
| Surr: Toluene-d8 | 94.7 | 70-130 | %Rec | 1 | 4/9/2019 6:32:00 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 5/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-37

Project:NBB Collection WellsCollection Date: 4/4/2019 9:10:00 AMLab ID:1904357-004Matrix: AQUEOUSReceived Date: 4/5/2019 8:30:00 AM

| Analyses | Result | RL Qu | al Units | DF | Date Analyzed |
|---------------------------------------|--------|----------|----------|----|----------------------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Analyst: Irm |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 4/11/2019 2:17:49 PM |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 4/11/2019 2:17:49 PM |
| Surr: DNOP | 114 | 52.7-168 | %Rec | 1 | 4/11/2019 2:17:49 PM |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 4/8/2019 11:14:46 AM |
| Surr: BFB | 89.2 | 72.8-125 | %Rec | 1 | 4/8/2019 11:14:46 AM |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst: RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 6:57:00 PM |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 6:57:00 PM |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 6:57:00 PM |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 6:57:00 PM |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 6:57:00 PM |
| Surr: 1,2-Dichloroethane-d4 | 101 | 70-130 | %Rec | 1 | 4/9/2019 6:57:00 PM |
| Surr: 4-Bromofluorobenzene | 99.1 | 70-130 | %Rec | 1 | 4/9/2019 6:57:00 PM |
| Surr: Dibromofluoromethane | 99.7 | 70-130 | %Rec | 1 | 4/9/2019 6:57:00 PM |
| Surr: Toluene-d8 | 94.2 | 70-130 | %Rec | 1 | 4/9/2019 6:57:00 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 5/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: OW 25+70

Project:NBB Collection WellsCollection Date: 4/4/2019 12:15:00 PMLab ID:1904357-005Matrix: AQUEOUSReceived Date: 4/5/2019 8:30:00 AM

| Analyses | Result | RL Qu | al Units | DF | Date Analyzed |
|---------------------------------------|--------|----------|----------|----|----------------------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Analyst: Irm |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 4/11/2019 2:39:52 PM |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 4/11/2019 2:39:52 PM |
| Surr: DNOP | 116 | 52.7-168 | %Rec | 1 | 4/11/2019 2:39:52 PM |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | 0.12 | 0.050 | mg/L | 1 | 4/8/2019 11:37:23 AM |
| Surr: BFB | 91.8 | 72.8-125 | %Rec | 1 | 4/8/2019 11:37:23 AM |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst: RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 7:21:00 PM |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 7:21:00 PM |
| Ethylbenzene | 1.3 | 1.0 | μg/L | 1 | 4/9/2019 7:21:00 PM |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 7:21:00 PM |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 7:21:00 PM |
| Surr: 1,2-Dichloroethane-d4 | 100 | 70-130 | %Rec | 1 | 4/9/2019 7:21:00 PM |
| Surr: 4-Bromofluorobenzene | 102 | 70-130 | %Rec | 1 | 4/9/2019 7:21:00 PM |
| Surr: Dibromofluoromethane | 98.5 | 70-130 | %Rec | 1 | 4/9/2019 7:21:00 PM |
| Surr: Toluene-d8 | 95.8 | 70-130 | %Rec | 1 | 4/9/2019 7:21:00 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Analytical Report

Lab Order **1904357**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/2/2019

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Trip Blank

Project: NBB Collection Wells **Collection Date:**

Lab ID: 1904357-006 **Matrix:** AQUEOUS **Received Date:** 4/5/2019 8:30:00 AM

| Analyses | Result | RL Qu | al Units | DF | Date Analyzed |
|---------------------------------------|--------|----------|----------|----|----------------------|
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 4/8/2019 11:59:57 AM |
| Surr: BFB | 93.1 | 72.8-125 | %Rec | 1 | 4/8/2019 11:59:57 AM |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst: RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/10/2019 1:51:00 PM |
| Toluene | ND | 1.0 | μg/L | 1 | 4/10/2019 1:51:00 PM |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/10/2019 1:51:00 PM |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/10/2019 1:51:00 PM |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/10/2019 1:51:00 PM |
| Surr: 1,2-Dichloroethane-d4 | 100 | 70-130 | %Rec | 1 | 4/10/2019 1:51:00 PM |
| Surr: 4-Bromofluorobenzene | 98.1 | 70-130 | %Rec | 1 | 4/10/2019 1:51:00 PM |
| Surr: Dibromofluoromethane | 99.7 | 70-130 | %Rec | 1 | 4/10/2019 1:51:00 PM |
| Surr: Toluene-d8 | 93.8 | 70-130 | %Rec | 1 | 4/10/2019 1:51:00 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 5/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: East Outfall #2

NBB Collection Wells **Project:** Collection Date: 4/4/2019 1:30:00 PM 1904357-007 Received Date: 4/5/2019 8:30:00 AM Lab ID: Matrix: AQUEOUS

| Analyses | Result | RL Qu | al Units | DF | Date Analyzed |
|---------------------------------------|--------|---------|----------|----|-----------------------|
| EPA METHOD 300.0: ANIONS | | | | | Analyst: MRA |
| Fluoride | ND | 0.50 | mg/L | 5 | 4/5/2019 8:04:24 PM |
| Chloride | 15 | 2.5 | mg/L | 5 | 4/5/2019 8:04:24 PM |
| Nitrogen, Nitrite (As N) | ND | 0.50 | mg/L | 5 | 4/5/2019 8:04:24 PM |
| Bromide | ND | 0.50 | mg/L | 5 | 4/5/2019 8:04:24 PM |
| Nitrogen, Nitrate (As N) | 3.5 | 0.50 | mg/L | 5 | 4/5/2019 8:04:24 PM |
| Phosphorus, Orthophosphate (As P) | ND | 2.5 | mg/L | 5 | 4/5/2019 8:04:24 PM |
| Sulfate | 250 | 10 | mg/L | 20 | 4/5/2019 8:17:15 PM |
| EPA METHOD 7470: MERCURY | | | | | Analyst: pmf |
| Mercury | ND | 0.00020 | mg/L | 1 | 4/9/2019 12:03:13 PM |
| EPA METHOD 7470: MERCURY | | | | | Analyst: pmf |
| Mercury | ND | 0.00020 | mg/L | 1 | 4/9/2019 12:05:26 PM |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | Analyst: rde |
| Arsenic | ND | 0.020 | mg/L | 1 | 4/25/2019 3:32:16 PM |
| Barium | 0.082 | 0.020 | mg/L | 1 | 4/11/2019 10:11:13 AM |
| Cadmium | ND | 0.0020 | mg/L | 1 | 4/11/2019 10:11:13 AM |
| Calcium | 140 | 5.0 | mg/L | 5 | 4/11/2019 10:13:07 AM |
| Chromium | ND | 0.0060 | mg/L | 1 | 4/11/2019 10:11:13 AM |
| Copper | ND | 0.0060 | mg/L | 1 | 4/11/2019 10:11:13 AM |
| Iron | ND | 0.020 | mg/L | 1 | 4/11/2019 10:11:13 AM |
| Lead | ND | 0.0050 | mg/L | 1 | 4/25/2019 3:32:16 PM |
| Magnesium | 27 | 1.0 | mg/L | 1 | 4/11/2019 10:11:13 AM |
| Manganese | ND | 0.0020 | mg/L | 1 | 4/11/2019 10:11:13 AM |
| Potassium | 2.0 | 1.0 | mg/L | 1 | 4/11/2019 10:11:13 AM |
| Selenium | ND | 0.050 | mg/L | 1 | 4/23/2019 12:04:23 PM |
| Silver | ND | 0.0050 | mg/L | 1 | 4/11/2019 10:11:13 AM |
| Sodium | 83 | 1.0 | mg/L | 1 | 4/11/2019 10:11:13 AM |
| Uranium | ND | 0.10 | mg/L | 1 | 4/23/2019 12:04:23 PM |
| Zinc | ND | 0.020 | mg/L | 1 | 4/25/2019 3:32:16 PM |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | Analyst: rde |
| Arsenic | ND | 0.020 | mg/L | 1 | 4/25/2019 2:59:49 PM |
| Barium | 0.077 | 0.020 | mg/L | 1 | 4/11/2019 9:15:39 AM |
| Cadmium | ND | 0.0020 | mg/L | 1 | 4/11/2019 9:15:39 AM |
| Chromium | ND | 0.0060 | mg/L | 1 | 4/11/2019 9:15:39 AM |
| Lead | ND | 0.0050 | mg/L | 1 | 4/25/2019 2:59:49 PM |
| Selenium | ND | 0.050 | mg/L | 1 | 4/11/2019 9:15:39 AM |
| Silver | ND | 0.0050 | mg/L | 1 | 4/11/2019 9:15:39 AM |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst: RAA |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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Analytical Report

Lab Order **1904357**

Date Reported: 5/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: East Outfall #2

 Project:
 NBB Collection Wells
 Collection Date: 4/4/2019 1:30:00 PM

 Lab ID:
 1904357-007
 Matrix: AQUEOUS
 Received Date: 4/5/2019 8:30:00 AM

| Analyses | Result | RL Q | ual Units | DF | Date Analyzed |
|---------------------------------------|--------|--------|-----------|------|----------------------|
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst: RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/10/2019 2:15:00 PM |
| Toluene | ND | 1.0 | μg/L | 1 | 4/10/2019 2:15:00 PM |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/10/2019 2:15:00 PM |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/10/2019 2:15:00 PM |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/10/2019 2:15:00 PM |
| Surr: 1,2-Dichloroethane-d4 | 102 | 70-130 | %Rec | 1 | 4/10/2019 2:15:00 PM |
| Surr: 4-Bromofluorobenzene | 97.4 | 70-130 | %Rec | 1 | 4/10/2019 2:15:00 PM |
| Surr: Dibromofluoromethane | 99.3 | 70-130 | %Rec | 1 | 4/10/2019 2:15:00 PM |
| Surr: Toluene-d8 | 94.2 | 70-130 | %Rec | 1 | 4/10/2019 2:15:00 PM |
| SM 2540 C: TOTAL DISSOLVED SOLIDS | | | | | Analyst: KS |
| Total Dissolved Solids | 748 | 20.0 | * mg/L | 1 | 4/10/2019 4:54:00 PM |
| CARBON DIOXIDE | | | | | Analyst: JRR |
| Total Carbon Dioxide | 310 | 1.0 | H mg CO | 2/ 1 | 4/9/2019 11:50:05 AM |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | Analyst: JRR |
| Conductivity | 1100 | 5.0 | µmhos. | /c 1 | 4/9/2019 11:50:05 AM |
| SM2320B: ALKALINITY | | | | | Analyst: JRR |
| Bicarbonate (As CaCO3) | 323.0 | 20.00 | mg/L C | a 1 | 4/9/2019 11:50:05 AM |
| Carbonate (As CaCO3) | ND | 2.000 | mg/L C | a 1 | 4/9/2019 11:50:05 AM |
| Total Alkalinity (as CaCO3) | 323.0 | 20.00 | mg/L C | a 1 | 4/9/2019 11:50:05 AM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 5/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: East Outfall #3

NBB Collection Wells **Project:** Collection Date: 4/4/2019 2:00:00 PM 1904357-008 Lab ID: Matrix: AQUEOUS Received Date: 4/5/2019 8:30:00 AM

| Analyses | Result | RL Qu | al Units | DF | Date Analyzed |
|---------------------------------------|--------|---------|----------|----|-----------------------|
| EPA METHOD 300.0: ANIONS | | | | | Analyst: MRA |
| Fluoride | ND | 0.50 | mg/L | 5 | 4/5/2019 8:30:07 PM |
| Chloride | 14 | 2.5 | mg/L | 5 | 4/5/2019 8:30:07 PM |
| Nitrogen, Nitrite (As N) | ND | 0.50 | mg/L | 5 | 4/5/2019 8:30:07 PM |
| Bromide | ND | 0.50 | mg/L | 5 | 4/5/2019 8:30:07 PM |
| Nitrogen, Nitrate (As N) | 3.3 | 0.50 | mg/L | 5 | 4/5/2019 8:30:07 PM |
| Phosphorus, Orthophosphate (As P) | ND | 2.5 | mg/L | 5 | 4/5/2019 8:30:07 PM |
| Sulfate | 250 | 10 | mg/L | 20 | 4/5/2019 8:42:58 PM |
| EPA METHOD 7470: MERCURY | | | | | Analyst: pmf |
| Mercury | ND | 0.00020 | mg/L | 1 | 4/9/2019 12:07:39 PM |
| EPA METHOD 7470: MERCURY | | | | | Analyst: pmf |
| Mercury | ND | 0.00020 | mg/L | 1 | 4/9/2019 12:09:53 PM |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | Analyst: rde |
| Arsenic | ND | 0.020 | mg/L | 1 | 4/25/2019 3:34:12 PM |
| Barium | 0.064 | 0.020 | mg/L | 1 | 4/11/2019 10:15:02 AM |
| Cadmium | ND | 0.0020 | mg/L | 1 | 4/11/2019 10:15:02 AM |
| Calcium | 140 | 5.0 | mg/L | 5 | 4/11/2019 10:16:54 AM |
| Chromium | ND | 0.0060 | mg/L | 1 | 4/11/2019 10:15:02 AM |
| Copper | ND | 0.0060 | mg/L | 1 | 4/11/2019 10:15:02 AM |
| Iron | ND | 0.020 | mg/L | 1 | 4/11/2019 10:15:02 AM |
| Lead | ND | 0.0050 | mg/L | 1 | 4/25/2019 3:34:12 PM |
| Magnesium | 26 | 1.0 | mg/L | 1 | 4/11/2019 10:15:02 AM |
| Manganese | ND | 0.0020 | mg/L | 1 | 4/11/2019 10:15:02 AM |
| Potassium | 1.9 | 1.0 | mg/L | 1 | 4/11/2019 10:15:02 AM |
| Selenium | ND | 0.050 | mg/L | 1 | 4/23/2019 12:06:15 PM |
| Silver | ND | 0.0050 | mg/L | 1 | 4/11/2019 10:15:02 AM |
| Sodium | 84 | 1.0 | mg/L | 1 | 4/11/2019 10:15:02 AM |
| Uranium | ND | 0.10 | mg/L | 1 | 4/23/2019 12:06:15 PM |
| Zinc | ND | 0.020 | mg/L | 1 | 4/25/2019 3:34:12 PM |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | Analyst: rde |
| Arsenic | ND | 0.020 | mg/L | 1 | 4/25/2019 3:01:40 PM |
| Barium | 0.063 | 0.020 | mg/L | 1 | 4/11/2019 9:17:34 AM |
| Cadmium | ND | 0.0020 | mg/L | 1 | 4/11/2019 9:17:34 AM |
| Chromium | ND | 0.0060 | mg/L | 1 | 4/11/2019 9:17:34 AM |
| Lead | ND | 0.0050 | mg/L | 1 | 4/25/2019 3:01:40 PM |
| Selenium | ND | 0.050 | mg/L | 1 | 4/11/2019 9:17:34 AM |
| Silver | ND | 0.0050 | mg/L | 1 | 4/11/2019 9:17:34 AM |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst: RAA |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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Analytical Report

Lab Order **1904357**Date Reported: **5/2/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** East Outfall #3

Project:NBB Collection WellsCollection Date: 4/4/2019 2:00:00 PMLab ID:1904357-008Matrix: AQUEOUSReceived Date: 4/5/2019 8:30:00 AM

| Analyses | Result | RL Q | Qual Ur | its | DF | Date Analyzed |
|---------------------------------------|--------|--------|---------|-----------------|----|----------------------|
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | | Analyst: RAA |
| Benzene | ND | 1.0 | μς | _J /L | 1 | 4/10/2019 2:39:00 PM |
| Toluene | ND | 1.0 | μί | J/L | 1 | 4/10/2019 2:39:00 PM |
| Ethylbenzene | ND | 1.0 | μ | J/L | 1 | 4/10/2019 2:39:00 PM |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μί | J/L | 1 | 4/10/2019 2:39:00 PM |
| Xylenes, Total | ND | 1.5 | μ | J/L | 1 | 4/10/2019 2:39:00 PM |
| Surr: 1,2-Dichloroethane-d4 | 105 | 70-130 | % | Rec | 1 | 4/10/2019 2:39:00 PM |
| Surr: 4-Bromofluorobenzene | 98.1 | 70-130 | % | Rec | 1 | 4/10/2019 2:39:00 PM |
| Surr: Dibromofluoromethane | 100 | 70-130 | % | Rec | 1 | 4/10/2019 2:39:00 PM |
| Surr: Toluene-d8 | 94.6 | 70-130 | % | Rec | 1 | 4/10/2019 2:39:00 PM |
| SM 2540 C: TOTAL DISSOLVED SOLIDS | | | | | | Analyst: KS |
| Total Dissolved Solids | 738 | 20.0 | * m | g/L | 1 | 4/10/2019 4:54:00 PM |
| CARBON DIOXIDE | | | | | | Analyst: JRR |
| Total Carbon Dioxide | 300 | 1.0 | H m | g CO2/ | 1 | 4/9/2019 12:05:39 PM |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | Analyst: JRR |
| Conductivity | 1100 | 5.0 | μr | nhos/c | 1 | 4/9/2019 12:05:39 PM |
| SM2320B: ALKALINITY | | | | | | Analyst: JRR |
| Bicarbonate (As CaCO3) | 318.1 | 20.00 | m | g/L Ca | 1 | 4/9/2019 12:05:39 PM |
| Carbonate (As CaCO3) | ND | 2.000 | m | g/L Ca | 1 | 4/9/2019 12:05:39 PM |
| Total Alkalinity (as CaCO3) | 318.1 | 20.00 | m | g/L Ca | 1 | 4/9/2019 12:05:39 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- $ND \qquad Not \ Detected \ at \ the \ Reporting \ Limit$
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904357**

02-May-19

Client: Western Refining Southwest, Inc.

Project: NBB Collection Wells

Sample ID: MB-44220 SampType: MBLK TestCode: SM 2540 C: Total Dissolved Solids

Client ID: PBW Batch ID: 44220 RunNo: 59049

Prep Date: 4/9/2019 Analysis Date: 4/10/2019 SeqNo: 1987443 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids ND 20.0

Sample ID: LCS-44220 SampType: LCS TestCode: SM 2540 C: Total Dissolved Solids

Client ID: LCSW Batch ID: 44220 RunNo: 59049

Prep Date: 4/9/2019 Analysis Date: 4/10/2019 SeqNo: 1987444 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids 1040 20.0 1000 0 104 80 120

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

ND

0.50

WO#: **1904357**

02-May-19

Client: Western Refining Southwest, Inc.

Project: NBB Collection Wells

Sample ID: MB SampType: mblk TestCode: EPA Method 300.0: Anions Client ID: PBW Batch ID: **R58949** RunNo: 58949 Prep Date: Analysis Date: 4/5/2019 SeqNo: 1982548 Units: mg/L Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result Fluoride ND 0.10 Chloride ND 0.50 Nitrogen, Nitrite (As N) ND 0.10 Bromide ND 0.10 Nitrogen, Nitrate (As N) ND 0.10 Phosphorus, Orthophosphate (As P ND 0.50

| Sample ID: LCS | SampT | ype: Ics | i | Tes | tCode: El | PA Method | 3 | | | |
|----------------------------------|------------|-----------------|-----------|-------------|-------------------|-----------|-------------|------|----------|------|
| Client ID: LCSW | Batcl | n ID: R5 | 8949 | F | RunNo: 5 8 | 8949 | | | | |
| Prep Date: | Analysis D | Date: 4/ | 5/2019 | 9 | SeqNo: 19 | 982549 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride | 0.54 | 0.10 | 0.5000 | 0 | 109 | 90 | 110 | | | |
| Chloride | 5.0 | 0.50 | 5.000 | 0 | 100 | 90 | 110 | | | |
| Nitrogen, Nitrite (As N) | 0.98 | 0.10 | 1.000 | 0 | 97.6 | 90 | 110 | | | |
| Bromide | 2.5 | 0.10 | 2.500 | 0 | 102 | 90 | 110 | | | |
| Nitrogen, Nitrate (As N) | 2.7 | 0.10 | 2.500 | 0 | 106 | 90 | 110 | | | |
| Phosphorus, Orthophosphate (As P | 5.1 | 0.50 | 5.000 | 0 | 102 | 90 | 110 | | | |
| Sulfate | 10 | 0.50 | 10.00 | 0 | 102 | 90 | 110 | | | |

Qualifiers:

Sulfate

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1904357**

02-May-19

Client: Western Refining Southwest, Inc.

Project: NBB Collection Wells

Sample ID: LCS-44215 SampType: LCS TestCode: EPA Method 8015D: Diesel Range Client ID: LCSW Batch ID: 44215 RunNo: 59076 Prep Date: 4/9/2019 Analysis Date: 4/11/2019 SeqNo: 1988558 Units: mg/L PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result

 Diesel Range Organics (DRO)
 3.1
 0.40
 2.500
 0
 125
 66.7
 148

 Surr: DNOP
 0.29
 0.2500
 114
 52.7
 168

Sample ID: MB-44215 SampType: MBLK TestCode: EPA Method 8015D: Diesel Range

Client ID: PBW Batch ID: 44215 RunNo: 59076

Prep Date: 4/9/2019 Analysis Date: 4/11/2019 SeqNo: 1988559 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Diesel Range Organics (DRO) ND 0.40
Motor Oil Range Organics (MRO) ND 2.5

Surr: DNOP 0.58 0.5000 116 52.7 168

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904357**

02-May-19

Client: Western Refining Southwest, Inc.

Project: NBB Collection Wells

Sample ID: RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBW Batch ID: G58973 RunNo: 58973

Prep Date: Analysis Date: 4/8/2019 SeqNo: 1984235 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 0.050

Surr: BFB 18 20.00 92.4 72.8 125

Sample ID: 2.5UG GRO LCS SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSW Batch ID: G58973 RunNo: 58973

21

Prep Date: Analysis Date: 4/8/2019 SeqNo: 1984237 Units: mg/L

20.00

LowLimit Analyte Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 77.7 0.46 0.050 0.5000 0 91.0 130

107

72.8

125

Qualifiers:

Surr: BFB

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1904357**

02-May-19

Client: Western Refining Southwest, Inc.

Project: NBB Collection Wells

| Sample ID: 100ng Ics | SampT | ype: LC | s | TestCode: EPA Method 8260: Volatiles Short List | | | | | | |
|-----------------------------|------------|----------------|-----------|---|-----------------|----------|-------------|------|----------|------|
| Client ID: LCSW | Batch | ID: R5 | 9003 | F | RunNo: 5 | 9003 | | | | |
| Prep Date: | Analysis D | ate: 4/ | 9/2019 | 8 | SeqNo: 1 | 985945 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 22 | 1.0 | 20.00 | 0 | 111 | 70 | 130 | | | |
| Toluene | 21 | 1.0 | 20.00 | 0 | 103 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 11 | | 10.00 | | 108 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.9 | | 10.00 | | 99.2 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 11 | | 10.00 | | 105 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.5 | | 10.00 | | 95.0 | 70 | 130 | | | |

| Sample ID: rb | SampT | ype: ME | BLK | TestCode: EPA Method 8260: Volatiles Short List | | | | | | |
|--------------------------------|------------|----------------|-----------|---|-------------------|----------|-------------|------|----------|------|
| Client ID: PBW | Batch | 1D: R5 | 9003 | F | RunNo: 5 9 | 9003 | | | | |
| Prep Date: | Analysis D | ate: 4/ | 9/2019 | S | SeqNo: 1 | 985946 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 11 | | 10.00 | | 107 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.5 | | 10.00 | | 95.2 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 11 | | 10.00 | | 106 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.5 | | 10.00 | | 95.1 | 70 | 130 | | | |

| Sample ID: RB | SampT | уре: МЕ | BLK | Tes | tCode: El | PA Method | 8260: Volatile | es Short L | ist | |
|--------------------------------|------------|---------|-----------|-------------|-----------------|-----------|----------------|------------|----------|------|
| Client ID: PBW | Batch | ID: SL | 59035 | F | RunNo: 5 | 9035 | | | | |
| Prep Date: | Analysis D | ate: 4/ | 10/2019 | S | SeqNo: 1 | 987559 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 10 | | 10.00 | | 103 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 10 | | 10.00 | | 99.6 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 10 | | 10.00 | | 100 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.3 | | 10.00 | | 93.2 | 70 | 130 | | | |

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1904357**

02-May-19

Client: Western Refining Southwest, Inc.

Project: NBB Collection Wells

Sample ID: Ics-1 99.0uS eC SampType: LCS TestCode: SM2510B: Specific Conductance

Client ID: LCSW Batch ID: R59004 RunNo: 59004

Prep Date: Analysis Date: 4/9/2019 SeqNo: 1985996 Units: µmhos/cm

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Conductivity 100 5.0 99.00 0 101 85 115

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1904357**

02-May-19

Client: Western Refining Southwest, Inc.

Project: NBB Collection Wells

Sample ID: MB-44195 SampType: MBLK TestCode: EPA Method 7470: Mercury

Client ID: PBW Batch ID: 44195 RunNo: 59010

Prep Date: 4/8/2019 Analysis Date: 4/9/2019 SeqNo: 1985400 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury ND 0.00020

Sample ID: LCS-44195 SampType: LCS TestCode: EPA Method 7470: Mercury

Client ID: LCSW Batch ID: 44195 RunNo: 59010

Prep Date: 4/8/2019 Analysis Date: 4/9/2019 SeqNo: 1985401 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.0049 0.00020 0.005000 0 98.9 80 120

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1904357**

02-May-19

Client: Western Refining Southwest, Inc.

Project: NBB Collection Wells

Sample ID: MB-A SampType: MBLK TestCode: EPA Method 6010B: Dissolved Metals

Client ID: PBW Batch ID: A59145 RunNo: 59145

| Prep Date: | Analysis | Date: 4/ | 11/2019 | 9 | SeqNo: 19 | 991022 | Units: mg/L | | | |
|------------|----------|-----------------|-----------|-------------|-----------|----------|-------------|------|----------|------|
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Barium | ND | 0.020 | | • | - | | _ | | • | |
| Cadmium | ND | 0.0020 | | | | | | | | |
| Calcium | ND | 1.0 | | | | | | | | |
| Chromium | ND | 0.0060 | | | | | | | | |
| Copper | ND | 0.0060 | | | | | | | | |
| Iron | ND | 0.020 | | | | | | | | |
| Magnesium | ND | 1.0 | | | | | | | | |
| Manganese | ND | 0.0020 | | | | | | | | |
| Potassium | ND | 1.0 | | | | | | | | |
| Silver | ND | 0.0050 | | | | | | | | |
| Sodium | ND | 1.0 | | | | | | | | |

| Sample ID: LCS-A | Samp | Type: LC | S | TestCode: EPA Method 6010B: Dissolved Metals | | | | | | |
|------------------|----------|-----------------|-----------|--|-----------------|----------|-------------|------|----------|------|
| Client ID: LCSW | Bato | ch ID: A5 | 9145 | F | RunNo: 5 | 9145 | | | | |
| Prep Date: | Analysis | Date: 4/ | 11/2019 | 9 | SeqNo: 1 | 991024 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Barium | 0.48 | 0.020 | 0.5000 | 0 | 95.5 | 80 | 120 | | | |
| Cadmium | 0.50 | 0.0020 | 0.5000 | 0 | 99.3 | 80 | 120 | | | |
| Calcium | 51 | 1.0 | 50.00 | 0 | 101 | 80 | 120 | | | |
| Chromium | 0.49 | 0.0060 | 0.5000 | 0 | 97.7 | 80 | 120 | | | |
| Copper | 0.51 | 0.0060 | 0.5000 | 0 | 101 | 80 | 120 | | | |
| Iron | 0.49 | 0.020 | 0.5000 | 0 | 98.6 | 80 | 120 | | | |
| Magnesium | 49 | 1.0 | 50.00 | 0 | 98.9 | 80 | 120 | | | |
| Manganese | 0.49 | 0.0020 | 0.5000 | 0 | 98.3 | 80 | 120 | | | |
| Potassium | 49 | 1.0 | 50.00 | 0 | 97.3 | 80 | 120 | | | |
| Silver | 0.10 | 0.0050 | 0.1000 | 0 | 99.8 | 80 | 120 | | | |
| Sodium | 48 | 1.0 | 50.00 | 0 | 97.0 | 80 | 120 | | | |

| Sample ID: LCSD-A | Samp | Type: LC | SD | Tes | als | | | | | |
|-------------------|----------|-----------------|-----------|-------------|---------------------------------------|----------|-----------|-------|----------|------|
| Client ID: LCSS02 | Bato | h ID: A5 | 9145 | F | RunNo: 5 | 9145 | | | | |
| Prep Date: | Analysis | Date: 4/ | 11/2019 | S | SeqNo: 1991025 Units: m | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Barium | 0.48 | 0.020 | 0.5000 | 0 | 95.7 | 80 | 120 | 0.193 | 20 | |
| Cadmium | 0.50 | 0.0020 | 0.5000 | 0 | 101 | 80 | 120 | 1.27 | 20 | |
| Calcium | 51 | 1.0 | 50.00 | 0 | 102 | 80 | 120 | 0.286 | 20 | |
| Chromium | 0.50 | 0.0060 | 0.5000 | 0 | 99.1 | 80 | 120 | 1.40 | 20 | |
| Copper | 0.51 | 0.0060 | 0.5000 | 0 | 102 | 80 | 120 | 0.919 | 20 | |
| Iron | 0.50 | 0.020 | 0.5000 | 0 | 100 | 80 | 120 | 1.43 | 20 | |

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1904357**

02-May-19

Client: Western Refining Southwest, Inc.

Project: NBB Collection Wells

| Sample ID: LCSD-A | Samp | Type: LC | SD | TestCode: EPA Method 6010B: Dissolved Metals | | | | | | |
|-------------------|----------|-----------------|-----------|--|-----------|-----------|--------------|-----------|----------|------|
| Client ID: LCSS02 | Bato | h ID: A5 | 9145 | F | RunNo: 5 | 9145 | | | | |
| Prep Date: | Analysis | Date: 4/ | 11/2019 | 9 | SeqNo: 1 | 991025 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Magnesium | 50 | 1.0 | 50.00 | 0 | 99.8 | 80 | 120 | 0.875 | 20 | |
| Manganese | 0.50 | 0.0020 | 0.5000 | 0 | 99.3 | 80 | 120 | 0.977 | 20 | |
| Potassium | 49 | 1.0 | 50.00 | 0 | 98.4 | 80 | 120 | 1.11 | 20 | |
| Silver | 0.10 | 0.0050 | 0.1000 | 0 | 99.9 | 80 | 120 | 0.113 | 20 | |
| Sodium | 49 | 1.0 | 50.00 | 0 | 97.4 | 80 | 120 | 0.465 | 20 | |
| Sample ID: MB-A | Samp | Туре: МЕ | BLK | Tes | tCode: El | PA Method | 6010B: Disso | lved Meta | als | |
| Client ID: PBW | Bato | h ID: A5 | 9359 | F | RunNo: 5 | 9359 | | | | |
| Prep Date: | Analysis | Date: 4/ | 23/2019 | 5 | SeqNo: 1 | 999259 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

 Selenium
 ND
 0.050

 Uranium
 ND
 0.10

ND

0.020

| Sample ID: LCS-A | SampT | ype: LC | S | TestCode: EPA Method 6010B: Dissolved Metals | | | | | | | |
|------------------|------------|----------------|-----------|--|-------------------|----------|-----------|------|----------|------|--|
| Client ID: LCSW | Batch | ID: A5 | 9359 | R | tunNo: 5 9 | 9359 | | | | | |
| Prep Date: | Analysis D | ate: 4/ | 23/2019 | S | SeqNo: 1999261 | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Selenium | 0.54 | 0.050 | 0.5000 | 0 | 107 | 80 | 120 | | | | |
| Uranium | 0.50 | 0.10 | 0.5000 | 0 | 99.7 | 80 | 120 | | | | |

| Sample ID: MB-A | SampType: MBLK | TestCode: EPA N | Method 6010B: Dissolved Metals |
|-----------------|-------------------------|---------------------------|--------------------------------------|
| Client ID: PBW | Batch ID: A59436 | RunNo: 5943 6 | 6 |
| Prep Date: | Analysis Date: 4/25/201 | 9 SeqNo: 2002 | 144 Units: mg/L |
| Analyte | Result PQL SPK | value SPK Ref Val %REC Lo | owLimit HighLimit %RPD RPDLimit Qual |
| Arsenic | ND 0.020 | | |
| Lead | ND 0.0050 | | |

| Sample ID: LCS-A | Samp | SampType: LCS | | | | TestCode: EPA Method 6010B: Dissolved Metals | | | | | | | |
|------------------|----------|-----------------|-----------|-------------|-------------------|--|-------------|------|----------|------|--|--|--|
| Client ID: LCSW | Bato | h ID: A5 | 9436 | F | RunNo: 5 9 | 9436 | | | | | | | |
| Prep Date: | Analysis | Date: 4/ | 25/2019 | S | SeqNo: 20 | 002145 | Units: mg/L | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | | | |
| Arsenic | 0.55 | 0.020 | 0.5000 | 0 | 110 | 80 | 120 | | | | | | |
| Lead | 0.54 | 0.0050 | 0.5000 | 0 | 109 | 80 | 120 | | | | | | |
| Zinc | 0.54 | 0.020 | 0.5000 | 0 | 109 | 80 | 120 | | | | | | |

Qualifiers:

Zinc

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1904357**

02-May-19

Client: Western Refining Southwest, Inc.

Project: NBB Collection Wells

Sample ID: MB-44198 SampType: MBLK TestCode: EPA 6010B: Total Recoverable Metals

Client ID: PBW Batch ID: 44198 RunNo: 59145

Prep Date: 4/8/2019 Analysis Date: 4/11/2019 SeqNo: 1991008 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Barium
 ND
 0.020

 Cadmium
 ND
 0.0020

 Chromium
 ND
 0.0060

 Selenium
 ND
 0.050

 Silver
 ND
 0.0050

| Sample ID: LCS-44198 | Samp | Type: LC | S | Tes | tCode: El | PA 6010B: | Total Recover | able Meta | als | |
|----------------------|----------|-----------------|-----------|-------------|-----------|-----------|---------------|-----------|----------|------|
| Client ID: LCSW | Bato | h ID: 44 | 198 | F | tunNo: 5 | 9145 | | | | |
| Prep Date: 4/8/2019 | Analysis | Date: 4/ | 11/2019 | S | SeqNo: 1 | 991009 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Barium | 0.48 | 0.020 | 0.5000 | 0 | 96.7 | 80 | 120 | | | |
| Cadmium | 0.50 | 0.0020 | 0.5000 | 0 | 100 | 80 | 120 | | | |
| Chromium | 0.49 | 0.0060 | 0.5000 | 0 | 98.7 | 80 | 120 | | | |
| Selenium | 0.53 | 0.050 | 0.5000 | 0 | 106 | 80 | 120 | | | |
| Silver | 0.10 | 0.0050 | 0.1000 | 0 | 102 | 80 | 120 | | | |

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1904357**

02-May-19

Client: Western Refining Southwest, Inc.

Project: NBB Collection Wells

Sample ID: mb-1 alk SampType: MBLK TestCode: SM2320B: Alkalinity

Client ID: PBW Batch ID: R59004 RunNo: 59004

Prep Date: Analysis Date: 4/9/2019 SeqNo: 1985959 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) ND 20.00

Total Alkalinity (as CaCO3)

Sample ID: Ics-1 alk SampType: LCS TestCode: SM2320B: Alkalinity

Client ID: LCSW Batch ID: R59004 RunNo: 59004

Prep Date: Analysis Date: 4/9/2019 SeqNo: 1985960 Units: mg/L CaCO3

80.00

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

95.2

110

Sample ID: mb-2 alk SampType: MBLK TestCode: SM2320B: Alkalinity

Client ID: PBW Batch ID: R59004 RunNo: 59004

20.00

76.12

Prep Date: Analysis Date: 4/9/2019 SeqNo: 1985984 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) ND 20.00

Sample ID: Ics-2 alk SampType: LCS TestCode: SM2320B: Alkalinity

Client ID: LCSW Batch ID: R59004 RunNo: 59004

Prep Date: Analysis Date: 4/9/2019 SeqNo: 1985985 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) 76.80 20.00 80.00 0 96.0 90 110

Qualifiers:

* Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107

Sample Log-In Check List

Website: www.hallenvironmental.com Client Name: Western Refining Southw Work Order Number: 1904357 RcptNo: 1 Received By: **Anne Thorne** 4/5/2019 8:30:00 AM anne Am Completed By: Anne Thorne 4/5/2019 10:41:14 AM Reviewed By: Chain of Custody Yes 🔽 No 🗀 1. Is Chain of Custody complete? Not Present 2. How was the sample delivered? Courier Login No 🗌 3. Was an attempt made to cool the samples? Yes 🗸 NA 🗌 No 🗌 Were all samples received at a temperature of >0° C to 6.0°C Yes 🔽 NA 🗀 Sample(s) in proper container(s)? Yes 🗹 No 🗀 6. Sufficient sample volume for indicated test(s)? Yes 🗸 7. Are samples (except VOA and ONG) properly preserved? Yes 🗸 No 🗸 8. Was preservative added to bottles? Yes 🗌 NA 🗌 9. VOA vials have zero headspace? Yes 🗸 No No VOA Vials Yes 10. Were any sample containers received broken? No 🔽 # of preserved bottles checked for pH: Yes 🗹 No 🗌 11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) nless noted) 12. Are matrices correctly identified on Chain of Custody? Yes 🗸 No 🗌 Yes 🗸 13. Is it clear what analyses were requested? No 🗌

Yes 🔽

No 🗌

Special Handling (if applicable)

14. Were all holding times able to be met?

(If no, notify customer for authorization.)

| 15. | Was client notified of all | discrepancies with this order? | Yes | No 🗆 | NA 🗸 |
|-----|----------------------------|--------------------------------|-------------------|------------|-----------|
| | Person Notified: | | Date | | |
| | By Whom: | | Via: ☐ eMail ☐ Pi | none E Fax | In Person |
| | Regarding: | | | | |
| | Client Instructions: | | | | |

16. Additional remarks:

CUSTODY SEALS INTACT ON SAMPLE BOTTLES/at 4/5/19

17. Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
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| 1 OF - | ENVIDONMENTAL | ANALYSIS LABORATORY | Com | . NM 87109 | 505-345-4107 | est | | luo : | 381 | | (A | ΌΛ | 8270 (Semi- | | | | | | | | | | Target Analytes | | |
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| | ENVID | I VSTS I | www hallenvironmental com | 4901 Hawkins NE - Albuquerque, NM 87109 | ; ; 5 Fax 505-; | nalysis | | (₄ O8 | O4.5 | ۹٬ _۶ ۵ | N'ε | elst ON, | RCRA 8 Me Anions (F,Cl 8081 Pestici | | | | | | | | | | Remarks: See Analytical Methods and Target Analytes | | |
| | | | Avvava | kins NE | 345-397 | | - | | (SV | () | · Þ 0 | g p | EDB (Metho | | | | _ | | | | | | nalytics | | |
| | |] [| | 01 Haw | Tel. 505-345-3975 | | (. | ATNO | ED C | | | | ı <mark>а) аз го</mark> в нчт odfəM) НЧТ | | × | | | | | | _ | - | S: See A | | |
| | | | | 49 | Te | | | | | - | | | 8TM+X3T8 8TM+X3T8 | | | | | | | | | + | Remarks | | |
| | | | Project Name: NBB - Collection Wells | 19 | Event | 66 | | | gjmccartney@marathonpetroleum.com | | | | HEAL NO. 190 4357 | 102 | 102. | P-0410119 | | | | | | | ٧ | Time 1 | |
| | Time: | □ Rush | : NBB - Cc | 4-3-19 | mi-Annua | 45000813 | ger: | . McCartney | y@maratho | icy Payne | X.Yes | berature: $[.C]$ | Preservative Type | HCI | Neat | | | | • | | | | / | | |
| | Tum-Around Time: | X Standard | Project Name | Date: | Project #: Semi-Annual Event | HEAL PO# 4500081399 | Project Manager: | Gregory J. | gjmccartne | Sampler: Tra | On Ice: | Tell | Container Type and # | 40ml VOA-5 | 250 ml amber-1 | | | | | | | | Received by: | Received by: | |
| | Chain-of-Custody Record | Client: Western Refining Southwest, Inc. | rminal | 4990 | Bloomfield, NM 87413 | -2338 | | | X Level 4 (Full Validation) | | | | Sample Request ID | CW 0+60 | CW 0+60 | | | | : | *************************************** | 2 | | <u> </u> | Amot Wells | |
| | of-Cu | n Refin | Bloomfield Terminal | Mailing Address: 50 CR 4990 | Bloomf | 419-421-2338 | | | • | | EXCEL | | Matrix | H ₂ 0 | H ₂ O | | | | | | | | Relinquished by: | Rejirquished by | |
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| | <u>ပ</u> | Client: | | Mailing / | | Phone #: | email or Fax# | QA/QC Package: | □ Standard | □ Other | X EDD | | Date | 4/3/19 | → | | | | | 1 | | | Date: | | , |

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| Client: N | Vester | rn Refir | Western Refining Southwest, Inc. | X Standard | □ Rush | | Л | | - < | 7 | | <u> </u> | 2 4 | ֓֞֝֟֝֓֟֝֓֟֝֟֝֓֟֟֝֓֓֓֟֟ | V | <u> </u> | ^ | |
| 6 | loom | Bloomfield Terminal | rminal | Project Name: | | Downgradient Wells | | | | www. | www hallenvironmental com | | ntal | E S | 5 |) | | |
| Mailing Address: | ddress. | 50 CR 4990 | | Date: | | <u>o</u> | | 4901 | Hawki | IS NE | 4901 Hawkins NE - Albuquerque, NM 87109 | ndner | due, I | 8 N | 7109 | | | |
| | | Bloom | Bloomfield, NM 87413 | Project #: Semi-Annual Event | mi-Annual | Event | | Tel. 5 | Tel. 505-345-3975 | 5-397 | - - | Fax 5 | 505-345-4107 | 5-41(| 7(| | | |
| Phone #: | | 419-421-2338 | 1-2338 | HEAL PO# | 4500081399 | 66 | | | | | Analy | | sanbe | ;; | | | | |
| email or Fax#: | ax#: | | | Project Manager: | jer: | | | | | _ | | | | | | | | |
| QA/QC Package: | ckage: | | | Gregory J. | McCartney | × | | | | | | | | | | | | |
| □ Standard | ırd | | X Level 4 (Full Validation) | gimccartne | /@maratho | gjmccartney@marathonpetroleum.com | | | | (3) | (0)4 | | | | | | | |
| □ Other _ | | | | Sampler: Tra | cy Payne | 919-561-7055 | | | | | 1100 | | | | | | | () |
| X EDD (Type) | 'ype) | EXCEL | | On Ice: | ĭ Yes | □ No | | | | | | | | | | | | A 10 |
| | | | | Sample Temperature: | erature: / | 2.97 | | | | | | | | | - | | _ | 入) |
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| . 6 | | Relinquished by: | | Received by: | Last | Date Time $4/4/19 + 1623$ | Remarks: | | see A | ınaly | See Analytical Methods | /letho | ds a | Dd T | and Target Analytes. | t Ans | alyte, | , i |
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| 3 | Turn-Around Time: | HALL | X Standard Rush ANALYSIS LABORATORY | Project Name: Downgradient Wells www.hallenvironmental com | 4-4-19 4901 Hawk | Tel 505-345-3975 | lel. 505-345-39/5 Fax | HEAL PO# 4500081399 | ((| :Β.ε 2Ο [†]) | ey@marathonpetroleum.com |) (SE | () (1) (1) (1) (1) | No No No No No No No No | He He He He He He He He | BE++38 (God 'ood 'oot oot oot oot oot oot oot oot oot oo | Container Preservative HEAL No. + ATT TEXT Meth APP APP APP APP APP APP APP APP APP AP | 88 × 88 × 88 × 88 × 88 × 88 × 88 × 88 | | amber-1 Neat $\sqrt{203}$ X | | | | | | | Date Time | Hoet Hall | Received by: Date Time |
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| | | Τ | | | 50 CR 4990 D | Bloomfield, NM 87413 | | 419-421-2338 H | | 9 | X Level 4 (Full Validation) | | Ø | | | Ø | Sample Request ID | MW-38 | 1000 | | | : | | | | 1 111 111 | | 1 | |
| Chain-of-Custody Client: Western Refining So Bloomfield Terminal Mailing Address: 50 CR 4990 Bloomfield, NI Phone #: 419-421-2338 email or Fax#: QA/QC Package: Standard | Chain-of-C | | t. Western Re | Bloomfield | ng Address: 50 C | Bloom | | | or Fax#: | 3 Package: | andard | _ | her | 'ype | | | Time | 08.50 | 3 - | H ₂ O | | | | | | | in p | لا | Time: Relinquished by: |

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| ' | | AB | www.hallenvironmental.com | e. N | Fax 505-345-4107 | uest | λ | luo <u>:</u> | 381 | .W ' | | | 8260B (VO | | | | | | | \dashv | \dashv | | s and | |
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| | | de la la la la la la la la la la la la la | Project Name: Downgradient Wells | -19 | al Event | 399 | | ıey | gjmccartney@marathonpetroleum.com | e 919-561-7055 | □ No | .97 | HEAL NO. | B | 132 | | | | ; | | | | L $4/4/19$ [L)3 Date Time $04/05/4$ | 0.00 |
| | Time: | □ Rush | e: Downgi | 4 | emi-Annual Event | <i>t</i> 4500081 | iger: | i. McCartney | y@marath | acy Payne | 域 Yes | perature. | Preservative Type | HC | Neat | | | | | | | | west | |
| | Turn-Around | X Standard | Project Nam | Date: | Project #: Se | HEAL PO# 4500081399 | Project Manager: | Gregory J | gjmccartne | Sampler: Tracy Payne | On Ice: | Ten | Container Type and # | 40ml VOA-5 | 250 ml amber-1 | | | | | | | : | Received by: Received by: | 1100/ |
| | Chain-of-Custody Record | Western Refining Southwest, Inc. | rminal | 4990 | Bloomfield, NM 87413 | -2338 | | | X Level 4 (Full Validation) | | | | Sample Request ID | MW-37 | MW-37 | | | | | | | | AY — Auished by: Ay — Auished by: Man L. Valde | |
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| (| ט | Client: V | Ш | Mailing A | | Phone #: | email or Fax#: | QA/QC Package: | ☐ Standard | □ Other | X EDD (Type) | | Date | 24/20 | | | | _ | | | + | | Date: | |

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| | } | SI | www.hallenvironmental.com | - Albuquerque, NM 87109 | Fax (| Analysis Request | | | | | sje | JəlV | l bevlossid | | | × | | | | | | See Analytical Methods and Target Analytes | | |
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| | | | er Bluff | | nt | | | | gjmccartney@marathonpetroleum.com | 919-561-7055 | | | HEAL NO. 1904357 | 702 | 767 | 7207 | 102 | 102 | | | | Date Time 4/4/19 /1623 | Date Time つイ(の5/17 の330 | |
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| | Time: | □ Rush | San Jua | 4-4- | mi-Annu | 4500081 | ger: | I. McCartney | y@marath | icy Payne | X Yes | perature: /. | Preservative Type | HCI | HNO3 | HNO3 | H ₂ SO ₄ | Neat | | | | Lloet | | |
| | Turn-Around | X Standard | Project Name: San Juan River Bluff | Date: | Project #: Semi-Annual Event | HEAL PO# 4500081399 | Project Manager: | Gregory J | gjmccartne | Sampler: Tracy Payne | On Ice: | Sample Tem | Container Type and # | 40ml VOA-5 | 250 ml plastic-1 | 125 ml plastic-1 | 125 ml plastic-1 | 500 ml plastic-1 | | | | Received by: | Received by: | |
| | Chain-of-Custody Record | Client: Western Refining Southwest, Inc. | ıai | 0 | Bloomfield, NM 87413 | 38 | | | X Level 4 (Full Validation) | | | | Sample Request ID | East Outfall #2 | East Outfall #2 | East Outfall #2 | East Outfall #2 | East Outfall #2 | | | | | Weele | |
| , | usto | fining | Bloomfield Terminal | Mailing Address: 50 CR 4990 | mfield, | 419-421-2338 | | | X Le | į | Ä | | | | | | | . <u></u> | - | | | Relinquished by: | Kelinquished by: | |
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| ; | hair | West | Bloo | y Addres | | #: | email or Fax#: | QA/QC Package: | ndard | er | EDD (Type) | | Time | 1330 | | | | -> | | | | Time: U23 | Time: [832 | |
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| | <i>7</i> 15 | ™ | ln J | 7 | Ann | 3000 | | Car | nara | Pay | es | nre: | Preservative Type | НСІ | HNO3 | HNO3 | H ₂ SO ₄ | Neat | | | | | 3 | , 7 | |
| | Time: | | Project Name: San Juan River Bluff | 4-4- | Project #: Semi-Annual Event | HEAL PO# 4500081399 | ger: | . McCartney | gjmccartney@marathonpetroleum.com | Sampler: Tracy Payne 919-561-7055 | k Yes | Sample Temperature: | Pre | | 1 | 4 | Н | | | | | | + | 72 | |
| | Turn-Around | X Standard | lame | | S | PO | Project Manager: | | rtne | Tr | | Tem | ner Id# | 40ml VOA-5 | <u>ا</u> ک | ار د ک | ր 1-1 | = 1 | | | | | ved by: | 12/2 | |
| | n-Arc | Stan | ect l | äi | ect # | AL. | ect 1 | Gregory J | ıcca | pler | <u>8</u> |) ple | Container Type and # | ٧٥ اد | 250 ml plastic-1 | 125 ml plastic-1 | 125 ml plastic-1 | 500 ml plastic-1 | | | | | Received by: | ived t | |
| | <u> </u> | × | Proj | Date: | Proj | 里 | Proj | <u>0</u> | gjm | San | On Ice: | San | ဂ္ဂ နှ | 40n | 2 pl | 1 pl | L q | 5 pl | | | | | Rece | Received by: | |
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| | Chain-of-Custody Record | Western Refining Southwest, Inc. | Bloomfield Terminal | | Bloomfield, NM 87413 | 419-421-2338 | | | | | EXCEL | | Matrix | H ₂ O | H ₂ O | H ₂ O | H ₂ O | H ₂ O | | | | | Relinquished by: | Relinquished by: Change C | \supset |
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TABLE 2

Analytical Methods and Target Analytes Facility-Wide Groundwater Monitoring Plan - June 2018 Western Refining Southwest, Inc. - Bloomfield Refinery

| VOCs (EPA Method 8260B) (1) |
|---|
| - Target List |
| Benzene |
| Toluene |
| Ethylbenzene |
| Xylenes |
| Methyl tert butyl ether (MTBE) |
| SVOCs - (EPA Method 8270) |
| - Method List |
| TPH-GRO (EPA Method 8015B) |
| - Gasoline Range Organics |
| TPH-DRO (EPA Method 8015B) |
| - Diesel Range Organics |
| - Motor Oil Range Organics |
| Total Carbon Dioxide (Laboratory Calculated) |
| - Dissolved CO2 |
| Specific Conductivity (EPA Method 120.1 or field measurement) |
| - Specific conductance |
| TDS (EPA Method 160.1 or field measurement) |
| - Total dissolved solids |
| General Chemistry - Anions (EPA Method 300.0) |
| Fluoride |
| Chloride |
| Bromide |
| Nitrogen, Nitrite (as N) |
| Nitrogen, Nitrate (as N) |
| Phosphorous, Orthophosphate (As P) |
| Sulfate |

General Chemistry - Alkalinity (EPA Method 310.1)

Total Recoverable Metals (EPA Method 6010B/7470)

- Target List (not applicable to River Terrace Sampling Events)

Arsenic Lead
Barium Mercury
Cadmium Selenium

Chromium Silver

- Target List (for River Terrace Sampling Events Only)

Lead

Mercury (DW-1 ONLY)

Dissolved Metals (EPA Method 6010B / 7470)

- Target List (for Refinery Complex, Outfalls, and River)

Arsenic Manganese Barium Mercury Cadmium Potassium Calcium Selenium Chromium Silver Copper Sodium Iron Uranium Lead Zinc

Magnesium

TPH = total petroleum hydrocarbons

GRO = gasoline range organics

VOCs = volatile organic compounds

DRO = diesel range organics

TDS = total dissolved solids

NOTES:

Alkalinity, Total Carbonate Bicarbonate

- (1) VOCs Target List for River Terrace samples are analyzed by EPA Method 8021B per NMED's letter Approval with Direction dated June 16, 2009.
- (2) Target List for San Juan River Terrace Monitoring Wells and Piezomenter Wells only, per the River Terrace Bioventing System Monitoring Plan.



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

April 15, 2019

Gregory J. McCartney Western Refining Southwest, Inc. #50 CR 4990

Bloomfield, NM 87413 TEL: (505) 632-4135 FAX: (505) 632-3911

RE: NBB Observation Wells 4-5-19 OrderNo.: 1904419

Dear Gregory J. McCartney:

Hall Environmental Analysis Laboratory received 8 sample(s) on 4/6/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **1904419**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/15/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: OW 8+10

 Project:
 NBB Observation Wells 4-5-19
 Collection Date: 4/5/2019 7:40:00 AM

 Lab ID:
 1904419-001
 Matrix: AQUEOUS
 Received Date: 4/6/2019 10:45:00 AM

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------------|----|----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Analyst | : Irm |
| Diesel Range Organics (DRO) | 0.44 | 0.40 | mg/L | 1 | 4/11/2019 3:02:04 PM | 44215 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 4/11/2019 3:02:04 PM | 44215 |
| Surr: DNOP | 116 | 52.7-168 | %Rec | 1 | 4/11/2019 3:02:04 PM | 44215 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst | : NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 4/8/2019 12:22:35 PM | G58973 |
| Surr: BFB | 92.9 | 72.8-125 | %Rec | 1 | 4/8/2019 12:22:35 PM | G58973 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | : RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 7:45:00 PM | R59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 7:45:00 PM | R59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 7:45:00 PM | R59003 |
| Methyl tert-butyl ether (MTBE) | 5.4 | 1.0 | μg/L | 1 | 4/9/2019 7:45:00 PM | R59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 7:45:00 PM | R59003 |
| Surr: 1,2-Dichloroethane-d4 | 101 | 70-130 | %Rec | 1 | 4/9/2019 7:45:00 PM | R59003 |
| Surr: 4-Bromofluorobenzene | 97.9 | 70-130 | %Rec | 1 | 4/9/2019 7:45:00 PM | R59003 |
| Surr: Dibromofluoromethane | 99.9 | 70-130 | %Rec | 1 | 4/9/2019 7:45:00 PM | R59003 |
| Surr: Toluene-d8 | 94.0 | 70-130 | %Rec | 1 | 4/9/2019 7:45:00 PM | R59003 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode

Lab Order **1904419**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/15/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: OW 19+50

 Project:
 NBB Observation Wells 4-5-19
 Collection Date: 4/5/2019 8:05:00 AM

 Lab ID:
 1904419-002
 Matrix: AQUEOUS
 Received Date: 4/6/2019 10:45:00 AM

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------------|----|----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Analyst | : Irm |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 4/11/2019 3:24:08 PM | 44215 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 4/11/2019 3:24:08 PM | 44215 |
| Surr: DNOP | 118 | 52.7-168 | %Rec | 1 | 4/11/2019 3:24:08 PM | 44215 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst | NSB |
| Gasoline Range Organics (GRO) | 0.077 | 0.050 | mg/L | 1 | 4/8/2019 12:45:29 PM | G58973 |
| Surr: BFB | 92.0 | 72.8-125 | %Rec | 1 | 4/8/2019 12:45:29 PM | G58973 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 8:08:00 PM | R59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 8:08:00 PM | R59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 8:08:00 PM | R59003 |
| Methyl tert-butyl ether (MTBE) | 130 | 1.0 | μg/L | 1 | 4/9/2019 8:08:00 PM | R59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 8:08:00 PM | R59003 |
| Surr: 1,2-Dichloroethane-d4 | 102 | 70-130 | %Rec | 1 | 4/9/2019 8:08:00 PM | R59003 |
| Surr: 4-Bromofluorobenzene | 97.7 | 70-130 | %Rec | 1 | 4/9/2019 8:08:00 PM | R59003 |
| Surr: Dibromofluoromethane | 100 | 70-130 | %Rec | 1 | 4/9/2019 8:08:00 PM | R59003 |
| Surr: Toluene-d8 | 94.6 | 70-130 | %Rec | 1 | 4/9/2019 8:08:00 PM | R59003 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1904419**

Date Reported: 4/15/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: OW 22+00

Project: NBB Observation Wells 4-5-19 **Collection Date:** 4/5/2019 8:25:00 AM

Lab ID: 1904419-003 **Matrix:** AQUEOUS **Received Date:** 4/6/2019 10:45:00 AM

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------------|----|----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Analyst | : Irm |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 4/11/2019 3:46:24 PM | 44215 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 4/11/2019 3:46:24 PM | 44215 |
| Surr: DNOP | 118 | 52.7-168 | %Rec | 1 | 4/11/2019 3:46:24 PM | 44215 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst | : NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 4/8/2019 1:08:07 PM | G58973 |
| Surr: BFB | 95.2 | 72.8-125 | %Rec | 1 | 4/8/2019 1:08:07 PM | G58973 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 8:32:00 PM | R59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 8:32:00 PM | R59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 8:32:00 PM | R59003 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 8:32:00 PM | R59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 8:32:00 PM | R59003 |
| Surr: 1,2-Dichloroethane-d4 | 102 | 70-130 | %Rec | 1 | 4/9/2019 8:32:00 PM | R59003 |
| Surr: 4-Bromofluorobenzene | 96.9 | 70-130 | %Rec | 1 | 4/9/2019 8:32:00 PM | R59003 |
| Surr: Dibromofluoromethane | 100 | 70-130 | %Rec | 1 | 4/9/2019 8:32:00 PM | R59003 |
| Surr: Toluene-d8 | 95.3 | 70-130 | %Rec | 1 | 4/9/2019 8:32:00 PM | R59003 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1904419**

Date Reported: 4/15/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: OW 23+90

Project: NBB Observation Wells 4-5-19

Collection Date: 4/5/2019

Lab ID: 1904419-004 **Matrix:** AQUEOUS **Received Date:** 4/6/2019 10:45:00 AM

| Analyses | Result | RL (| Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|--------|------------|----|---------------------|--------|
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | : RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 8:56:00 PM | R59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 8:56:00 PM | R59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 8:56:00 PM | R59003 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 8:56:00 PM | R59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 8:56:00 PM | R59003 |
| Surr: 1,2-Dichloroethane-d4 | 103 | 70-130 | %Rec | 1 | 4/9/2019 8:56:00 PM | R59003 |
| Surr: 4-Bromofluorobenzene | 98.6 | 70-130 | %Rec | 1 | 4/9/2019 8:56:00 PM | R59003 |
| Surr: Dibromofluoromethane | 101 | 70-130 | %Rec | 1 | 4/9/2019 8:56:00 PM | R59003 |
| Surr: Toluene-d8 | 95.9 | 70-130 | %Rec | 1 | 4/9/2019 8:56:00 PM | R59003 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode

Lab Order **1904419**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/15/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: CW 25+95

 Project:
 NBB Observation Wells 4-5-19
 Collection Date: 4/5/2019 9:10:00 AM

 Lab ID:
 1904419-005
 Matrix: AQUEOUS
 Received Date: 4/6/2019 10:45:00 AM

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------------|----|----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Analyst | : Irm |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 4/11/2019 4:08:37 PM | 44215 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 4/11/2019 4:08:37 PM | 44215 |
| Surr: DNOP | 115 | 52.7-168 | %Rec | 1 | 4/11/2019 4:08:37 PM | 44215 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst | : NSB |
| Gasoline Range Organics (GRO) | 0.36 | 0.050 | mg/L | 1 | 4/8/2019 1:53:28 PM | G58973 |
| Surr: BFB | 108 | 72.8-125 | %Rec | 1 | 4/8/2019 1:53:28 PM | G58973 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | : RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 9:20:00 PM | R59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 9:20:00 PM | R59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 9:20:00 PM | R59003 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 9:20:00 PM | R59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 9:20:00 PM | R59003 |
| Surr: 1,2-Dichloroethane-d4 | 100 | 70-130 | %Rec | 1 | 4/9/2019 9:20:00 PM | R59003 |
| Surr: 4-Bromofluorobenzene | 101 | 70-130 | %Rec | 1 | 4/9/2019 9:20:00 PM | R59003 |
| Surr: Dibromofluoromethane | 96.5 | 70-130 | %Rec | 1 | 4/9/2019 9:20:00 PM | R59003 |
| Surr: Toluene-d8 | 95.2 | 70-130 | %Rec | 1 | 4/9/2019 9:20:00 PM | R59003 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1904419**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/15/2019

CLIENT:Western Refining Southwest, Inc.Client Sample ID: Duplicate #1Project:NBB Observation Wells 4-5-19Collection Date: 4/5/2019

Lab ID: 1904419-006 **Matrix:** AQUEOUS **Received Date:** 4/6/2019 10:45:00 AM

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------------|----|----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Analyst | : Irm |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 4/11/2019 4:31:03 PM | 44215 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 4/11/2019 4:31:03 PM | 44215 |
| Surr: DNOP | 114 | 52.7-168 | %Rec | 1 | 4/11/2019 4:31:03 PM | 44215 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst | NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 4/8/2019 2:16:08 PM | G58973 |
| Surr: BFB | 101 | 72.8-125 | %Rec | 1 | 4/8/2019 2:16:08 PM | G58973 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 9:44:00 PM | R59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 9:44:00 PM | R59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 9:44:00 PM | R59003 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 9:44:00 PM | R59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 9:44:00 PM | R59003 |
| Surr: 1,2-Dichloroethane-d4 | 102 | 70-130 | %Rec | 1 | 4/9/2019 9:44:00 PM | R59003 |
| Surr: 4-Bromofluorobenzene | 97.2 | 70-130 | %Rec | 1 | 4/9/2019 9:44:00 PM | R59003 |
| Surr: Dibromofluoromethane | 99.3 | 70-130 | %Rec | 1 | 4/9/2019 9:44:00 PM | R59003 |
| Surr: Toluene-d8 | 94.6 | 70-130 | %Rec | 1 | 4/9/2019 9:44:00 PM | R59003 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Lab Order **1904419**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 4/15/2019

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Field Blank #2

 Project:
 NBB Observation Wells 4-5-19
 Collection Date: 4/5/2019 9:25:00 AM

 Lab ID:
 1904419-007
 Matrix: AQUEOUS
 Received Date: 4/6/2019 10:45:00 AM

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------------|----|----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Analyst | : Irm |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 4/11/2019 4:53:09 PM | 44215 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 4/11/2019 4:53:09 PM | 44215 |
| Surr: DNOP | 113 | 52.7-168 | %Rec | 1 | 4/11/2019 4:53:09 PM | 44215 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst | : NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 4/8/2019 2:38:47 PM | G58973 |
| Surr: BFB | 100 | 72.8-125 | %Rec | 1 | 4/8/2019 2:38:47 PM | G58973 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | : RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 10:08:00 PM | B59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 10:08:00 PM | B59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 10:08:00 PM | B59003 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 10:08:00 PM | B59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 10:08:00 PM | B59003 |
| Surr: 1,2-Dichloroethane-d4 | 101 | 70-130 | %Rec | 1 | 4/9/2019 10:08:00 PM | B59003 |
| Surr: 4-Bromofluorobenzene | 99.3 | 70-130 | %Rec | 1 | 4/9/2019 10:08:00 PM | B59003 |
| Surr: Dibromofluoromethane | 100 | 70-130 | %Rec | 1 | 4/9/2019 10:08:00 PM | B59003 |
| Surr: Toluene-d8 | 95.4 | 70-130 | %Rec | 1 | 4/9/2019 10:08:00 PM | B59003 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode

Lab Order **1904419**

Date Reported: 4/15/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Trip Blank

Project: NBB Observation Wells 4-5-19 **Collection Date:**

Lab ID: 1904419-008 **Matrix:** AQUEOUS **Received Date:** 4/6/2019 10:45:00 AM

| Analyses | Result | RL (| Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|--------|------------|----|----------------------|--------|
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/9/2019 11:21:00 PM | B59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/9/2019 11:21:00 PM | B59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/9/2019 11:21:00 PM | B59003 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/9/2019 11:21:00 PM | B59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/9/2019 11:21:00 PM | B59003 |
| Surr: 1,2-Dichloroethane-d4 | 102 | 70-130 | %Rec | 1 | 4/9/2019 11:21:00 PM | B59003 |
| Surr: 4-Bromofluorobenzene | 98.0 | 70-130 | %Rec | 1 | 4/9/2019 11:21:00 PM | B59003 |
| Surr: Dibromofluoromethane | 101 | 70-130 | %Rec | 1 | 4/9/2019 11:21:00 PM | B59003 |
| Surr: Toluene-d8 | 93.4 | 70-130 | %Rec | 1 | 4/9/2019 11:21:00 PM | B59003 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit

Н

S % Recovery outside of range due to dilution or matrix

- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904419**

15-Apr-19

Client: Western Refining Southwest, Inc.

Project: NBB Observation Wells 4-5-19

Sample ID: LCS-44215 SampType: LCS TestCode: EPA Method 8015D: Diesel Range
Client ID: LCSW Batch ID: 44215 RunNo: 59076

Prep Date: 4/9/2019 Analysis Date: 4/11/2019 SeqNo: 1988558 Units: mg/L

PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Diesel Range Organics (DRO) 0.40 0 3.1 2.500 125 66.7 148

Surr: DNOP 0.29 0.2500 114 52.7 168

Sample ID: MB-44215 SampType: MBLK TestCode: EPA Method 8015D: Diesel Range

Client ID: PBW Batch ID: 44215 RunNo: 59076

Prep Date: 4/9/2019 Analysis Date: 4/11/2019 SeqNo: 1988559 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Diesel Range Organics (DRO) ND 0.40
Motor Oil Range Organics (MRO) ND 2.5

Surr: DNOP 0.58 0.5000 116 52.7 168

Qualifiers:

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904419**

15-Apr-19

Client: Western Refining Southwest, Inc.

Project: NBB Observation Wells 4-5-19

Sample ID: RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBW Batch ID: G58973 RunNo: 58973

Prep Date: Analysis Date: 4/8/2019 SeqNo: 1984235 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 0.050

Surr: BFB 18 20.00 92.4 72.8 125

Sample ID: 2.5UG GRO LCS SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSW Batch ID: G58973 RunNo: 58973

Prep Date: Analysis Date: 4/8/2019 SeqNo: 1984237 Units: mg/L

LowLimit Analyte Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 77.7 0.46 0.050 0.5000 0 91.0 130 Surr: BFB 21 20.00 107 72.8 125

Qualifiers:

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

SampType: MBLK

WO#: **1904419**

15-Apr-19

Client: Western Refining Southwest, Inc.
Project: NBB Observation Wells 4-5-19

| Sample ID: 100ng Ics | SampT | SampType: LCS TestCode: EPA Method 82 | | | | | | s Short L | ist | |
|-----------------------------|------------|---------------------------------------|-----------|-------------|-------------------|----------|-------------|-----------|----------|------|
| Client ID: LCSW | Batch | 1D: R5 | 9003 | F | RunNo: 5 9 | 9003 | | | | |
| Prep Date: | Analysis D | ate: 4/ | 9/2019 | 8 | SeqNo: 1 | 985945 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 22 | 1.0 | 20.00 | 0 | 111 | 70 | 130 | | | |
| Toluene | 21 | 1.0 | 20.00 | 0 | 103 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 11 | | 10.00 | | 108 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.9 | | 10.00 | | 99.2 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 11 | | 10.00 | | 105 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.5 | | 10.00 | | 95.0 | 70 | 130 | | | |

TestCode: EPA Method 8260: Volatiles Short List

| Client ID: PBW | Batcl | h ID: R5 | 9003 | F | RunNo: 5 | 9003 | | | | |
|--------------------------------|------------|-----------------|-----------|-------------|----------|----------|-------------|------|----------|------|
| Prep Date: | Analysis D | Date: 4/ | 9/2019 | \$ | SeqNo: 1 | 985946 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 11 | | 10.00 | | 107 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.5 | | 10.00 | | 95.2 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 11 | | 10.00 | | 106 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.5 | | 10.00 | | 95.1 | 70 | 130 | | | |

| Sample ID: 1904419-007ams | SampT | SampType: MS TestCode: EPA Method 8260: Volatiles Short List | | | | | | | | |
|-----------------------------|------------|--|-----------|-------------|-----------------|----------|-------------|------|----------|------|
| Client ID: Field Blank #2 | Batcl | n ID: B5 | 9003 | F | RunNo: 5 | 9003 | | | | |
| Prep Date: | Analysis D | Date: 4/ | 9/2019 | 9 | SeqNo: 1 | 985993 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 21 | 1.0 | 20.00 | 0 | 104 | 70 | 130 | | | |
| Toluene | 20 | 1.0 | 20.00 | 0 | 99.4 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 10 | | 10.00 | | 103 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 10 | | 10.00 | | 101 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 10 | | 10.00 | | 101 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.4 | | 10.00 | | 94.5 | 70 | 130 | | | |

| Sample ID: 1904419-007amsd | SampTy | SampType: MSD TestCode: EPA Method 8260: Volatiles Short List | | | | | | | | |
|----------------------------|-------------|---|-----------|-------------|----------|----------|-------------|------|----------|------|
| Client ID: Field Blank #2 | Batch | ID: B5 | 9003 | F | RunNo: 5 | 9003 | | | | |
| Prep Date: | Analysis Da | ite: 4/ | 9/2019 | S | SeqNo: 1 | 986004 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 20 | 1.0 | 20.00 | 0 | 99.1 | 70 | 130 | 4.98 | 20 | |

Qualifiers:

Sample ID: rb

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904419**

15-Apr-19

Client: Western Refining Southwest, Inc.

Project: NBB Observation Wells 4-5-19

| Sample ID: 1904419-007amsd | SampT | SampType: MSD TestCode: EPA Method 8260: Volatiles Short List | | | | | | | | |
|-----------------------------|-------------|---|-----------|-------------|----------|----------|-------------|------|----------|------|
| Client ID: Field Blank #2 | Batch | Batch ID: B59003 RunNo: 59003 | | | | | | | | |
| Prep Date: | Analysis Da | ate: 4/ 9 | 9/2019 | S | SeqNo: 1 | 986004 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Toluene | 19 | 1.0 | 20.00 | 0 | 94.8 | 70 | 130 | 4.66 | 20 | |
| Surr: 1,2-Dichloroethane-d4 | 9.9 | | 10.00 | | 98.8 | 70 | 130 | 0 | 0 | |
| Surr: 4-Bromofluorobenzene | 9.9 | | 10.00 | | 98.7 | 70 | 130 | 0 | 0 | |
| Surr: Dibromofluoromethane | 10 | | 10.00 | | 100 | 70 | 130 | 0 | 0 | |
| Surr: Toluene-d8 | 9.4 | | 10.00 | | 94.4 | 70 | 130 | 0 | 0 | |

| Sample ID: 100ng lcs2 | SampT | ype: LC | S | Tes | tCode: El | PA Method | 8260: Volatile | s Short L | .ist | |
|-----------------------------|------------|-----------------|-----------|-------------|-------------------|-----------|----------------|-----------|----------|------|
| Client ID: LCSW | Batch | n ID: B5 | 9003 | F | RunNo: 5 9 | 9003 | | | | |
| Prep Date: | Analysis D | ate: 4/ | 10/2019 | 5 | SeqNo: 1 | 986087 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 22 | 1.0 | 20.00 | 0 | 112 | 70 | 130 | | | |
| Toluene | 22 | 1.0 | 20.00 | 0 | 108 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 10 | | 10.00 | | 99.8 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.8 | | 10.00 | | 98.2 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.9 | | 10.00 | | 99.1 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.4 | | 10.00 | | 94.4 | 70 | 130 | | | |

| Sample ID: rb2 | SampT | уре: МЕ | BLK | Tes | tCode: El | PA Method | 8260: Volatile | es Short L | ist | |
|--------------------------------|------------|-----------------|-----------|-------------|-------------------|-----------|----------------|------------|----------|------|
| Client ID: PBW | Batcl | n ID: B5 | 9003 | F | RunNo: 5 9 | 9003 | | | | |
| Prep Date: | Analysis D | Date: 4/ | 10/2019 | S | SeqNo: 1 | 986088 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 10 | | 10.00 | | 101 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.8 | | 10.00 | | 98.2 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 10 | | 10.00 | | 101 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.4 | | 10.00 | | 94.2 | 70 | 130 | | | |

Qualifiers:

H Holding times for preparation or analysis exceeded

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw Work Order Number: 1904419 RcptNo: 1 Received By: Isaiah Ortiz 4/6/2019 10:45:00 AM Completed By: Isaiah Ortiz 4/6/2019 11:57:13 AM INOX 4/8/19 Reviewed By: 4-8-19 (B: Chain of Custody 1. Is Chain of Custody complete? Yes 🗸 No 🗌 Not Present 2. How was the sample delivered? Courier Log In 3. Was an attempt made to cool the samples? Yes 🗸 No 🗌 NA 🗌 No 🗔 4. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 NA 🗌 5. Sample(s) in proper container(s)? Yes 🗸 No 🔲 6. Sufficient sample volume for indicated test(s)? Yes 🗸 No 🗌 7. Are samples (except VOA and ONG) properly preserved? No Yes No 🗸 8. Was preservative added to bottles? Yes NA L 9. VOA vials have zero headspace? Yes No No VOA Vials 🗸 10. Were any sample containers received broken? Yes No 🗸 # of preserved bottles checked No 🗌 for pH: 11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) (<2 or >12 unless noted) Adjusted? 12. Are matrices correctly identified on Chain of Custody? Yes 🗸 No 13. Is it clear what analyses were requested? Yes 🗸 No 14. Were all holding times able to be met? Checked by: Yes 🗸 No 🗌 nc (If no, notify customer for authorization.) Special Handling (if applicable) 15. Was client notified of all discrepancies with this order? Yes NA 🗸 No Person Notified: Date: By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: 16. Additional remarks: 17. Cooler Information Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By 1 5.9 Good Yes 2 3.2 Good Yes 3 2.8 Good Yes

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| - | I | ORY | | | | | | | | (1 | 10 | (人) | Air Bubbles | | | | | | | 10 | alytes. | |
|--|-------------------------|--|---------------------------------------|---|------------------------------------|--------------|------------------|----------------------|-----------------------------------|--|---|---------------------|--|------------------|-------------------|---|--|--|--|----|---|---|
| <u>†</u> | HALL FINATEDAMENTAL | ANALYSIS LABORATORY | www.hallenvironmental.com | 4901 Hawkins NE - Albuquerque, NM 87109 | Tel. 505-345-3975 Fax 505-345-4107 | | (1 | SO4) | N/O | () () () () () () () () | 18. 04. 04. 07(2) 18. 18. 18. | (GI) | BTEX+MTE TPH 8015B TPH (Methor PPH (8310 PPH (| × | × | | | | | 3 | Remarks: See Analytical Methods and Target Analytes | |
| | | | vation Wells | | ent | | | (1 | | 919-561-7055 | | 3.2 5.28 | HEAL NO. X+ | , 100- | 7 | | | | | | Date Time 4/5/19 /55C Date Time (6/19 1045 | |
| and the second s | Time: | □ Rush | Project Name: NBB - Observation Wells | 4-5-19 | Project #: Semi-Annual Event | # 4500081399 | ager: | Gregory J. McCartney | gjmccartney@marathonpetroleum.com | Sampler: Tracy Payne 919 | Yes No | perature: 5.9 ~ | Preservative Type | HCI | Neat | | | | | | hlaste 4 | |
| | Turn-Around | X Standard | Project Nam | Date: | Project #: Se | HEAL PO# | Project Manager: | Gregory J | gjmccartne | Sampler: Tr | On Ice: | Sample Temperature: | Container Type and # | 40ml VOA-5 | 250 ml amber-1 | | | | | | Received by: Received by: | |
| | Chain-of-Custody Record | Client: Western Refining Southwest, Inc. | rminal | 4990 | Bloomfield, NM 87413 | -2338 | | | X Level 4 (Full Validation) | | | | Sample Request ID | OW 8+10 | OW 8+10 | | | | | | 16/2: The World Callera | |
| | -of-Cus | ern Refin | Bloomfield Terminal | s: 50 CR 4990 | Bloomfi | 419-421-2338 | | | | | EXCEL | | Matrix | H ₂ O | H ₂ 0 | | | | | | Relinquished by: Refinquished by: |) |
| | Chain | Slient: West | Blooi | Mailing Address: | | Phone #: | email or Fax#: | QA/QC Package: | □ Standard | □ Other | X EDD (Type) | | Date Time | 4/5/19 0740 | <i>→</i> | , | | | | + | Uste: Time: US/4 [550 Date: Time: | |

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| Client Western Refining Southwest, Inc. X Sandard Rush Project Neme NBB - Observation Wells | Chain-of-Custody Record | Turn-Around Time: | Time: | y. | | | : | | i | | | | | | . |
|--|-------------------------|--------------------|----------------------|-----------------|-------|---------|-------|---------|-----------|--------------|---------|----------|--------|-------|-----------------|
| Project Name.NBB - Observation Wells Project #: Semi-Annual Event Project #: Semi-Annua | Refining Southwest, In | ن | | | | | Ì | | . E | | ¥ | | | | ړ پ |
| 1, NM 8743 | eld Terminal | Project Name | | servation Wells | | | > | ww.h | allenvi | lonmer (| ental.c |) HO | 5 | | , |
| Foliect #: Semi-Annual Event | 50 CR 4990 | Date: | Ň | 9 | 4 | 901 H | awkin | s NE | | ndner | dne, I | NM 8 | 7109 | | |
| HEAL PO# 4500081339 | loomfield, NM 87413 | Project #: Se | mi-Annual | Event | · | [el. 50 | 5-34 | -3975 | | ax 5(| 05-34 | 5-410 | 22 | | |
| Container Cont | 19-421-2338 | HEAL PO# | 450008138 | 66 | | | | | Analy | sis Re | sanbe | st St | | | |
| Gregory J. McCartney Sampler Tracy Payne 919-561-7055 Sampler Tracy Payne 919-7055 Sampler Tracy Pa | | Project Mana | ıger: | | | _ | | | | - | - | L | | | |
| Sampler Tracy Payne 919-561-7055 | | Gregory J. | . McCartne | > | | | | | | | | | | | |
| Sampler Tracy Payne 919-561-7055 Sampler Tracy Payne 919-561-7055 On lose Sampler Tracy Payne 919-561-7055 On lose Sample Temperature; Sqr | X Level 4 (Full Validat | | y@maratho | npetroleum.com | _ | | | (SV | | | | | | | |
| Ow 22+00 Sample Temperature: 5-9-1-5-2-6-6-7-6-7-6-7-6-7-6-7-6-7-6-7-6-7-6-7 | | | acy Payne 9 | 119-561-7055 | | | 1000 | - 01 | | | _ | | | | \(\frac{1}{2}\) |
| Sample Temperature 5.9 | EXCEL | On Ice: | ₩ Yes | oN 🗆 | | | | | | | | _ | | | |
| ample Request ID Container Type and # Type HEAL NO. AMTB </td <td></td> <td>Sample Tem</td> <td>6.</td> <td>3.2.5</td> <td></td> <td></td> <td>20, 3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>70</td> | | Sample Tem | 6. | 3.2.5 | | | 20, 3 | | | | | | | | 70 |
| OW 22+00 40ml VOA-5 HCI -003 X X X X X X X X X X X X X X X X X X | | 10 2 10 | Preservative Type | HEAL NO. | | | | | | | | | | | 111 0 .v |
| OW 22+00 250 ml Neat Image: Content of the content o | | 40ml VOA-5 | | -803 | | × | | | | | × | | | | |
| Received by: Received by: Date Time Remarks: See Analytical Methods and April Stocked by: Date Time Received by: Date Time Received by: Date Time Date | | 250 ml amber-1 | Neat | - | | × | | | | | | | | | |
| Received by: Amaly Date Time Remarks: See Analytical Methods and April Apri | | | | | | | | | | | | | | | |
| Received by: Pate Time Remarks: See Analytical Methods and Pate Time Received by: Date Time | | | | | | | | | | | | | | | |
| Received by: Amal Hall All Issue Al | | | | | | | | | | | | | | | |
| Received by: Pate Time Pate Time Remarks: See Analytical Methods and Pate Time | | | | | | | | | | | | | | | |
| Received by: Pate Time Pate Time Remarks: See Analytical Methods and Pate Time | | | | | | | | | | | | | | | |
| Received by: Received by: Received by: Date Time Remarks: See Analytical Methods and Date Time Received by: All 19 1045 | | | | | | | | | | | | | | | |
| Received by: Received by: Received by: Date Time Remarks: See Analytical Methods and Date Time Received by: Date Time Received by: Date Time A/6/19 / Dus | | | | | | | | | | | | | | | |
| Received by: Pate Time Remarks: See Analytical Methods and Received by: Pate Time Received by: Date Time Time Time Time Time Time Time Tim | | | | | | | | | | | | | | | |
| Received by: Received by: Received by: Date Time Remarks: See Analytical Methods and Ag/19/1550 Bate Time Aloukeu T Coore 4/6/19/1045 | | | | | | | | | | | | | | | |
| Received by: Analytical Methods and Apply 1550 Received by: Date Time Accelved. $46/9 / 045$ | | | | | | | - | | | - | _ | | | | |
| | 11 3 | Received by: | Loet. | 6 6 | Remar | | ee Ar | ıalytic | ial Me | thod: | s and | Tarc | get An | alyte | vi. |

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|------------------|---------------|------------------|--|------------------------------|----------------------|--|-------------------------------------|-----------|---------|---|------------------|-----------------------|---------------|----------|-----------------|--------|------|-----------|
| 5 | | 10-10- | cnain-or-custody Record | I urn-Around | I Ime: | | | | Ī | | | | FNVTRONMENTAL | 2 | L | F | | |
| Client: | Weste | ın Refi | Client: Western Refining Southwest, Inc. | X Standard | □ Rush | | | | • | ANALYSTS LABORATORY | Š | S | | Ç | | 2 | ַ גַ | |
| | Bloon | nfield T | Bloomfield Terminal | Project Name | NBB - Co | Project Name: NBB - Collection Wells | | | } | www.hallenvironmental.com | lenvir | onme | ntalic | <u> </u> | |) | | |
| Mailing Address: | Address | s: 50 CF | 50 CR 4990 | Date: | 4-5- | 19 | 4 | 901 F | lawkin | 4901 Hawkins NE - Albuquergue, NM 87109 | - Albu | dnero | Ne. N | M 87 | 109 | | | |
| | | Bloom | Bloomfield, NM 87413 | Project #: Semi-Annual Event | mi-Annual | Event | | Tel. 5(| 5-345 | Tel. 505-345-3975 | ŭ | Fax 50 | 505-345-4107 | -410 | | | | |
| Phone #: | ي | 419-42 | 419-421-2338 | HEAL PO# 4500081399 | 45000813 | 66 | | | | 7 | Analysis Request | is Re | quest | | | | | |
| email or Fax#: | Fax#: | | | Project Manager: | ger: | | | _ | | | | _ | - | | - | | | |
| QA/QC Package: | ackage: | | | Gregory J. McCartney | McCartne | , Y | | Tables or | | | | | | | | | | |
| □ Standard | lard | | X Level 4 (Full Validation) | gjmccartne | y@maratho | gjmccartney@marathonpetroleum.com | | | | (SN | | | | | | | | |
| □ Other | | | | Sampler: Tra | cy Payne | Sampler: Tracy Payne 919-561-7055 | | 10 | - | _ | | | | | | | | (1 |
| X EDD (| EDD (Type)_ | EXCEL | | On Ice: | W Yes | □ No | | | | | | | | (A | | | | V 10 |
| | | | | Tem | erature:5.9° | 7.87 7.28 7 | | | | | | | | OV. | | | | (Y (|
| | | | | | | | | | | | | | | -im | - 6 | | | sə |
| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL NO. 190419 | M+X3T8 M+X3T8 | 83108 H9T | 9M) H9T | EDB (We | RCRA 8 | 7) snoinA 299 1808 | v) 80928 | əS) 0728 | 8500B | | | Iddu8 1iA |
| 4/5/19 | 0910 | H ₂ O | CW 25+95 | 40ml VOA-5 | HCI | 500- | | × | | _ | _ | _ | _ | | | | | |
| \rightarrow | \rightarrow | H ₂ O | CW 25+95 | 250 ml amber-1 | Neat | | | × | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| 4/2/19 | ſ | H,0 | DUPLICATE #1 | 40 MC1 (0A-5 | HCL | - CO 6 | | × | | | | | × | | | | | |
| \rightarrow | 1 | H2D | \ | 250ML AMBER-1 | NEAT | 1 | | × | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| 45/19 | 0925 | 142 O | FIELD BLANK #Z | 40 mc/68-5 | HCC | -00J | | × | | | | | × | | | | | |
| > | Ž | 4,0 | → | ZSOML AMBER-1 | NEAT | 1 | | X | | | | | | | | | | |
| | | | | | | ENN | 4/8 | 19, | | | | | | | | | | |
| 1/8/19 | 1 | H2D | TRIP BLANK | 40MLYOR-3 | HCL - | -008 | | . 1 | | | | | | // | V | | | |
| | | | | | | | H | 4 | 100 | 0000 | 100 | - L | 4 | - | 1 | Bell | 5/12 | |
| | | | | | | | | | | | | | | | | | | |
| | Time: | <u>~</u> | :xq pa | Received by: | - | Date Time | Remarks: See Analytical Methods and | ks: Se | e Ana | lytical | Metho | ds an | | get A | Target Analytes | SS. | | |
| 5- | (550) | $\overline{}$ | | / Must | Local | 1/5/11/556 | | | | | | | | | | | | |
| | Time: | Relinquished by: | - | Received by: | | Date Time | | | | | | | | | | | | |
| 115/19 | | \$ | Monday JOB Vers | 2 | Bonze | 4/6/19 1045 | | | | | | | | | | | | |
| | |) | | | | | | | | | | | | | | | | |



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

May 14, 2019

Gregory J. McCartney Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4135 FAX: (505) 632-3911

RE: San Juan River 4-5-19 OrderNo.: 1904422

Dear Gregory J. McCartney:

Hall Environmental Analysis Laboratory received 5 sample(s) on 4/6/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order **1904422**

Date Reported: 5/14/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Upstream

 Project:
 San Juan River 4-5-19
 Collection Date: 4/5/2019 10:40:00 AM

 Lab ID:
 1904422-001
 Matrix: AQUEOUS
 Received Date: 4/6/2019 10:45:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|------------------------------------|--------|----------|------|---------|-----|-----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | Analyst | : Irm |
| Diesel Range Organics (DRO) | ND | 0.40 | | mg/L | 1 | 4/11/2019 5:15:25 PM | 44215 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | mg/L | 1 | 4/11/2019 5:15:25 PM | 44215 |
| Surr: DNOP | 119 | 52.7-168 | | %Rec | 1 | 4/11/2019 5:15:25 PM | 44215 |
| CARBON DIOXIDE | | | | | | Analyst | JRR |
| Total Carbon Dioxide | 87 | 1.0 | Н | mg CO2 | / 1 | 4/9/2019 12:20:38 PM | R59004 |
| EPA METHOD 300.0: ANIONS | | | | | | Analyst | MRA |
| Fluoride | ND | 1.0 | | mg/L | 10 | 4/8/2019 4:53:19 PM | R58998 |
| Chloride | 5.4 | 5.0 | | mg/L | 10 | 4/8/2019 4:53:19 PM | R58998 |
| Bromide | ND | 1.0 | | mg/L | 10 | 4/8/2019 4:53:19 PM | R58998 |
| Phosphorus, Orthophosphate (As P) | ND | 5.0 | Н | mg/L | 10 | 4/8/2019 4:53:19 PM | R58998 |
| Sulfate | 92 | 5.0 | | mg/L | 10 | 4/8/2019 4:53:19 PM | R58998 |
| Nitrate+Nitrite as N | ND | 1.0 | | mg/L | 5 | 4/8/2019 6:36:12 PM | R58998 |
| SM2320B: ALKALINITY | | | | | | Analyst | JRR |
| Bicarbonate (As CaCO3) | 95.56 | 20.00 | | mg/L Ca | 1 | 4/9/2019 12:20:38 PM | R59004 |
| Carbonate (As CaCO3) | ND | 2.000 | | mg/L Ca | 1 | 4/9/2019 12:20:38 PM | R59004 |
| Total Alkalinity (as CaCO3) | 95.56 | 20.00 | | mg/L Ca | 1 | 4/9/2019 12:20:38 PM | R59004 |
| EPA METHOD 7470: MERCURY | | | | | | Analyst | pmf |
| Mercury | ND | 0.00020 | | mg/L | 1 | 4/9/2019 12:12:07 PM | 44195 |
| EPA METHOD 7470: MERCURY | | | | | | Analyst | pmf |
| Mercury | ND | 0.00020 | | mg/L | 1 | 4/11/2019 3:46:58 PM | 44282 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | | Analyst | rde |
| Arsenic | ND | 0.020 | | mg/L | 1 | 4/25/2019 3:42:02 PM | A59436 |
| Barium | 0.076 | 0.020 | | mg/L | 1 | 4/11/2019 10:27:37 AM | A59145 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 4/11/2019 10:27:37 AM | A59145 |
| Calcium | 39 | 1.0 | | mg/L | 1 | 4/26/2019 2:41:20 PM | A59501 |
| Chromium | ND | 0.0060 | | mg/L | 1 | 4/11/2019 10:27:37 AM | A59145 |
| Copper | ND | 0.0060 | | mg/L | 1 | 4/11/2019 10:27:37 AM | A59145 |
| Iron | 0.074 | 0.020 | | mg/L | 1 | 4/23/2019 12:08:08 PM | A59359 |
| Lead | ND | 0.0050 | | mg/L | 1 | 4/25/2019 3:42:02 PM | A59436 |
| Magnesium | 7.3 | 1.0 | | mg/L | 1 | 4/11/2019 10:27:37 AM | A59145 |
| Manganese | 0.017 | 0.0020 | | mg/L | 1 | 4/23/2019 12:08:08 PM | A59359 |
| Potassium | 2.2 | 1.0 | | mg/L | 1 | 4/11/2019 10:27:37 AM | |
| Selenium | ND | 0.050 | | mg/L | 1 | 4/23/2019 12:08:08 PM | |
| Silver | ND | 0.0050 | | mg/L | 1 | 4/11/2019 10:27:37 AM | |
| Sodium | 29 | 1.0 | | mg/L | 1 | 4/11/2019 10:27:37 AM | |
| Uranium | ND | 0.10 | | mg/L | 1 | 4/23/2019 12:08:08 PM | A59359 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1904422**

Date Reported: 5/14/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Upstream

 Project:
 San Juan River 4-5-19
 Collection Date: 4/5/2019 10:40:00 AM

 Lab ID:
 1904422-001
 Matrix: AQUEOUS
 Received Date: 4/6/2019 10:45:00 AM

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------------|----|----------------------|---------|
| EPA METHOD 6010B: DISSOLVED METALS | | | | | Analyst | : rde |
| Zinc | ND | 0.020 | mg/L | 1 | 4/25/2019 3:42:02 PM | A59436 |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | Analyst | : rde |
| Arsenic | ND | 0.020 | mg/L | 1 | 4/25/2019 3:03:34 PM | 44198 |
| Barium | 0.14 | 0.020 | mg/L | 1 | 4/11/2019 9:19:28 AM | 44198 |
| Cadmium | ND | 0.0020 | mg/L | 1 | 4/11/2019 9:19:28 AM | 44198 |
| Chromium | ND | 0.0060 | mg/L | 1 | 4/11/2019 9:19:28 AM | 44198 |
| Lead | ND | 0.0050 | mg/L | 1 | 4/25/2019 3:03:34 PM | 44198 |
| Selenium | ND | 0.050 | mg/L | 1 | 4/11/2019 9:19:28 AM | 44198 |
| Silver | ND | 0.0050 | mg/L | 1 | 4/11/2019 9:19:28 AM | 44198 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst | : NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 4/8/2019 3:24:11 PM | G58973 |
| Surr: BFB | 109 | 72.8-125 | %Rec | 1 | 4/8/2019 3:24:11 PM | G58973 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | : RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/10/2019 1:27:00 PM | SL59035 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/10/2019 1:27:00 PM | SL59035 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/10/2019 1:27:00 PM | SL59035 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/10/2019 1:27:00 PM | SL59035 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/10/2019 1:27:00 PM | SL59035 |
| Surr: 1,2-Dichloroethane-d4 | 102 | 70-130 | %Rec | 1 | 4/10/2019 1:27:00 PM | SL59035 |
| Surr: 4-Bromofluorobenzene | 97.9 | 70-130 | %Rec | 1 | 4/10/2019 1:27:00 PM | SL59035 |
| Surr: Dibromofluoromethane | 99.3 | 70-130 | %Rec | 1 | 4/10/2019 1:27:00 PM | SL59035 |
| Surr: Toluene-d8 | 94.4 | 70-130 | %Rec | 1 | 4/10/2019 1:27:00 PM | SL59035 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1904422**

Date Reported: 5/14/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: North of 45

Project: San Juan River 4-5-19
 Collection Date: 4/5/2019 11:45:00 AM

 Lab ID: 1904422-002
 Matrix: AQUEOUS
 Received Date: 4/6/2019 10:45:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|------------------------------------|--------|----------|------|---------|-----|-----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | Analyst: | Irm |
| Diesel Range Organics (DRO) | ND | 0.40 | | mg/L | 1 | 4/11/2019 5:37:34 PM | 44215 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | mg/L | 1 | 4/11/2019 5:37:34 PM | 44215 |
| Surr: DNOP | 114 | 52.7-168 | | %Rec | 1 | 4/11/2019 5:37:34 PM | 44215 |
| CARBON DIOXIDE | | | | | | Analyst | JRR |
| Total Carbon Dioxide | 86 | 1.0 | Н | mg CO2 | ′ 1 | 4/9/2019 12:29:23 PM | R59004 |
| EPA METHOD 300.0: ANIONS | | | | | | Analyst: | MRA |
| Fluoride | ND | 1.0 | | mg/L | 10 | 4/8/2019 5:44:46 PM | R58998 |
| Chloride | 5.5 | 5.0 | | mg/L | 10 | 4/8/2019 5:44:46 PM | R58998 |
| Bromide | ND | 1.0 | | mg/L | 10 | 4/8/2019 5:44:46 PM | R58998 |
| Phosphorus, Orthophosphate (As P) | ND | 5.0 | Н | mg/L | 10 | 4/8/2019 5:44:46 PM | R58998 |
| Sulfate | 94 | 5.0 | | mg/L | 10 | 4/8/2019 5:44:46 PM | R58998 |
| Nitrate+Nitrite as N | ND | 1.0 | | mg/L | 5 | 4/8/2019 6:49:04 PM | R58998 |
| SM2320B: ALKALINITY | | | | | | Analyst: | JRR |
| Bicarbonate (As CaCO3) | 95.48 | 20.00 | | mg/L Ca | 1 | 4/9/2019 12:29:23 PM | R59004 |
| Carbonate (As CaCO3) | ND | 2.000 | | mg/L Ca | 1 | 4/9/2019 12:29:23 PM | R59004 |
| Total Alkalinity (as CaCO3) | 95.48 | 20.00 | | mg/L Ca | 1 | 4/9/2019 12:29:23 PM | R59004 |
| EPA METHOD 7470: MERCURY | | | | | | Analyst | pmf |
| Mercury | ND | 0.00020 | | mg/L | 1 | 4/9/2019 12:18:53 PM | 44195 |
| EPA METHOD 7470: MERCURY | | | | | | Analyst | pmf |
| Mercury | ND | 0.00020 | | mg/L | 1 | 4/11/2019 3:49:12 PM | 44282 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | | Analyst | rde |
| Arsenic | ND | 0.020 | | mg/L | 1 | 4/25/2019 3:44:01 PM | A59436 |
| Barium | 0.074 | 0.020 | | mg/L | 1 | 4/11/2019 10:31:28 AM | A59145 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 4/11/2019 10:31:28 AM | A59145 |
| Calcium | 40 | 1.0 | | mg/L | 1 | 4/26/2019 2:43:00 PM | A59501 |
| Chromium | ND | 0.0060 | | mg/L | 1 | 4/11/2019 10:31:28 AM | A59145 |
| Copper | ND | 0.0060 | | mg/L | 1 | 4/11/2019 10:31:28 AM | A59145 |
| Iron | 0.057 | 0.020 | | mg/L | 1 | 4/23/2019 12:22:14 PM | A59359 |
| Lead | ND | 0.0050 | | mg/L | 1 | 4/25/2019 3:44:01 PM | A59436 |
| Magnesium | 7.3 | 1.0 | | mg/L | 1 | 4/11/2019 10:31:28 AM | A59145 |
| Manganese | 0.013 | 0.0020 | | mg/L | 1 | 4/23/2019 12:22:14 PM | A59359 |
| Potassium | 2.1 | 1.0 | | mg/L | 1 | 4/11/2019 10:31:28 AM | A59145 |
| Selenium | ND | 0.050 | | mg/L | 1 | 4/23/2019 12:22:14 PM | |
| Silver | ND | 0.0050 | | mg/L | 1 | 4/11/2019 10:31:28 AM | |
| Sodium | 30 | 1.0 | | mg/L | 1 | 4/11/2019 10:31:28 AM | |
| Uranium | ND | 0.10 | | mg/L | 1 | 4/23/2019 12:22:14 PM | A59359 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1904422

Date Reported: 5/14/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: North of 45

 Project:
 San Juan River 4-5-19
 Collection Date: 4/5/2019 11:45:00 AM

 Lab ID:
 1904422-002
 Matrix: AQUEOUS
 Received Date: 4/6/2019 10:45:00 AM

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------------|----|----------------------|--------|
| EPA METHOD 6010B: DISSOLVED METALS | | | | | Analyst | : rde |
| Zinc | ND | 0.020 | mg/L | 1 | 4/25/2019 3:44:01 PM | A59436 |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | Analyst | : rde |
| Arsenic | ND | 0.020 | mg/L | 1 | 4/25/2019 3:08:51 PM | 44198 |
| Barium | 0.19 | 0.020 | mg/L | 1 | 4/11/2019 9:24:36 AM | 44198 |
| Cadmium | ND | 0.0020 | mg/L | 1 | 4/11/2019 9:24:36 AM | 44198 |
| Chromium | ND | 0.0060 | mg/L | 1 | 4/11/2019 9:24:36 AM | 44198 |
| Lead | ND | 0.0050 | mg/L | 1 | 4/25/2019 3:08:51 PM | 44198 |
| Selenium | ND | 0.050 | mg/L | 1 | 4/11/2019 9:24:36 AM | 44198 |
| Silver | ND | 0.0050 | mg/L | 1 | 4/11/2019 9:24:36 AM | 44198 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst | : NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 4/8/2019 3:46:54 PM | G58973 |
| Surr: BFB | 110 | 72.8-125 | %Rec | 1 | 4/8/2019 3:46:54 PM | G58973 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | : RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/10/2019 1:46:00 AM | B59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/10/2019 1:46:00 AM | B59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/10/2019 1:46:00 AM | B59003 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/10/2019 1:46:00 AM | B59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/10/2019 1:46:00 AM | B59003 |
| Surr: 1,2-Dichloroethane-d4 | 102 | 70-130 | %Rec | 1 | 4/10/2019 1:46:00 AM | B59003 |
| Surr: 4-Bromofluorobenzene | 98.0 | 70-130 | %Rec | 1 | 4/10/2019 1:46:00 AM | B59003 |
| Surr: Dibromofluoromethane | 100 | 70-130 | %Rec | 1 | 4/10/2019 1:46:00 AM | B59003 |
| Surr: Toluene-d8 | 95.2 | 70-130 | %Rec | 1 | 4/10/2019 1:46:00 AM | B59003 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1904422**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/14/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: North of 46

 Project:
 San Juan River 4-5-19
 Collection Date: 4/5/2019 12:15:00 PM

 Lab ID:
 1904422-003
 Matrix: AQUEOUS
 Received Date: 4/6/2019 10:45:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|------------------------------------|--------|----------|------|---------|-----|-----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | Analyst | Irm |
| Diesel Range Organics (DRO) | ND | 0.40 | | mg/L | 1 | 4/11/2019 5:59:50 PM | 44215 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | mg/L | 1 | 4/11/2019 5:59:50 PM | 44215 |
| Surr: DNOP | 115 | 52.7-168 | | %Rec | 1 | 4/11/2019 5:59:50 PM | 44215 |
| CARBON DIOXIDE | | | | | | Analyst | JRR |
| Total Carbon Dioxide | 92 | 1.0 | Н | mg CO2 | / 1 | 4/9/2019 12:37:28 PM | R59004 |
| EPA METHOD 300.0: ANIONS | | | | | | Analyst | MRA |
| Fluoride | ND | 1.0 | | mg/L | 10 | 4/8/2019 6:10:29 PM | R58998 |
| Chloride | 6.2 | 5.0 | | mg/L | 10 | 4/8/2019 6:10:29 PM | R58998 |
| Bromide | ND | 1.0 | | mg/L | 10 | 4/8/2019 6:10:29 PM | R58998 |
| Phosphorus, Orthophosphate (As P) | ND | 5.0 | Н | mg/L | 10 | 4/8/2019 6:10:29 PM | R58998 |
| Sulfate | 130 | 5.0 | | mg/L | 10 | 4/8/2019 6:10:29 PM | R58998 |
| Nitrate+Nitrite as N | ND | 1.0 | | mg/L | 5 | 4/8/2019 7:01:55 PM | R58998 |
| SM2320B: ALKALINITY | | | | | | Analyst | JRR |
| Bicarbonate (As CaCO3) | 102.1 | 20.00 | | mg/L Ca | 1 | 4/9/2019 12:37:28 PM | R59004 |
| Carbonate (As CaCO3) | ND | 2.000 | | mg/L Ca | 1 | 4/9/2019 12:37:28 PM | R59004 |
| Total Alkalinity (as CaCO3) | 102.1 | 20.00 | | mg/L Ca | 1 | 4/9/2019 12:37:28 PM | R59004 |
| EPA METHOD 7470: MERCURY | | | | | | Analyst | pmf |
| Mercury | ND | 0.00020 | | mg/L | 1 | 4/9/2019 12:25:47 PM | 44195 |
| EPA METHOD 7470: MERCURY | | | | | | Analyst | pmf |
| Mercury | ND | 0.00020 | | mg/L | 1 | 4/11/2019 3:51:26 PM | 44282 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | | Analyst | rde |
| Arsenic | ND | 0.020 | | mg/L | 1 | 4/25/2019 3:45:52 PM | A59436 |
| Barium | 0.074 | 0.020 | | mg/L | 1 | 4/11/2019 10:35:11 AM | A59145 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 4/11/2019 10:35:11 AM | A59145 |
| Calcium | 47 | 1.0 | | mg/L | 1 | 4/26/2019 2:44:40 PM | A59501 |
| Chromium | ND | 0.0060 | | mg/L | 1 | 4/11/2019 10:35:11 AM | A59145 |
| Copper | ND | 0.0060 | | mg/L | 1 | 4/11/2019 10:35:11 AM | A59145 |
| Iron | 0.037 | 0.020 | | mg/L | 1 | 4/23/2019 12:24:08 PM | A59359 |
| Lead | ND | 0.0050 | | mg/L | 1 | 4/25/2019 3:45:52 PM | A59436 |
| Magnesium | 8.0 | 1.0 | | mg/L | 1 | 4/11/2019 10:35:11 AM | A59145 |
| Manganese | 0.10 | 0.0020 | | mg/L | 1 | 4/23/2019 12:24:08 PM | A59359 |
| Potassium | 2.2 | 1.0 | | mg/L | 1 | 4/11/2019 10:35:11 AM | |
| Selenium | ND | 0.050 | | mg/L | 1 | 4/23/2019 12:24:08 PM | |
| Silver | ND | 0.0050 | | mg/L | 1 | 4/11/2019 10:35:11 AM | |
| Sodium | 36 | 1.0 | | mg/L | 1 | 4/11/2019 10:35:11 AM | |
| Uranium | ND | 0.10 | | mg/L | 1 | 4/23/2019 12:24:08 PM | A59359 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1904422**

Date Reported: 5/14/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: North of 46

 Project:
 San Juan River 4-5-19
 Collection Date: 4/5/2019 12:15:00 PM

 Lab ID:
 1904422-003
 Matrix: AQUEOUS
 Received Date: 4/6/2019 10:45:00 AM

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------------|----|----------------------|--------|
| EPA METHOD 6010B: DISSOLVED METALS | | | | | Analyst | : rde |
| Zinc | ND | 0.020 | mg/L | 1 | 4/25/2019 3:45:52 PM | A59436 |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | Analyst | : rde |
| Arsenic | ND | 0.020 | mg/L | 1 | 4/25/2019 3:18:07 PM | 44198 |
| Barium | 0.14 | 0.020 | mg/L | 1 | 4/11/2019 9:26:15 AM | 44198 |
| Cadmium | ND | 0.0020 | mg/L | 1 | 4/11/2019 9:26:15 AM | 44198 |
| Chromium | ND | 0.0060 | mg/L | 1 | 4/11/2019 9:26:15 AM | 44198 |
| Lead | ND | 0.0050 | mg/L | 1 | 4/25/2019 3:18:07 PM | 44198 |
| Selenium | ND | 0.050 | mg/L | 1 | 4/11/2019 9:26:15 AM | 44198 |
| Silver | ND | 0.0050 | mg/L | 1 | 4/11/2019 9:26:15 AM | 44198 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst | : NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 4/8/2019 4:09:32 PM | G58973 |
| Surr: BFB | 108 | 72.8-125 | %Rec | 1 | 4/8/2019 4:09:32 PM | G58973 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | : RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/10/2019 2:11:00 AM | B59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/10/2019 2:11:00 AM | B59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/10/2019 2:11:00 AM | B59003 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/10/2019 2:11:00 AM | B59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/10/2019 2:11:00 AM | B59003 |
| Surr: 1,2-Dichloroethane-d4 | 97.5 | 70-130 | %Rec | 1 | 4/10/2019 2:11:00 AM | B59003 |
| Surr: 4-Bromofluorobenzene | 99.0 | 70-130 | %Rec | 1 | 4/10/2019 2:11:00 AM | B59003 |
| Surr: Dibromofluoromethane | 98.0 | 70-130 | %Rec | 1 | 4/10/2019 2:11:00 AM | B59003 |
| Surr: Toluene-d8 | 93.5 | 70-130 | %Rec | 1 | 4/10/2019 2:11:00 AM | B59003 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1904422**

Date Reported: 5/14/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Downstream

 Project:
 San Juan River 4-5-19
 Collection Date: 4/5/2019 12:50:00 PM

 Lab ID:
 1904422-004
 Matrix: AQUEOUS
 Received Date: 4/6/2019 10:45:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|------------------------------------|--------|----------|------|---------|-----|-----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | Analyst | Irm |
| Diesel Range Organics (DRO) | ND | 0.40 | | mg/L | 1 | 4/11/2019 6:21:56 PM | 44215 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | mg/L | 1 | 4/11/2019 6:21:56 PM | 44215 |
| Surr: DNOP | 118 | 52.7-168 | | %Rec | 1 | 4/11/2019 6:21:56 PM | 44215 |
| CARBON DIOXIDE | | | | | | Analyst | JRR |
| Total Carbon Dioxide | 89 | 1.0 | Н | mg CO2 | / 1 | 4/9/2019 12:45:40 PM | R59004 |
| EPA METHOD 300.0: ANIONS | | | | | | Analyst | smb |
| Fluoride | 0.20 | 0.10 | | mg/L | 1 | 4/11/2019 5:51:40 PM | R59098 |
| Chloride | 5.5 | 5.0 | | mg/L | 10 | 4/8/2019 6:55:33 PM | R58999 |
| Bromide | ND | 1.0 | | mg/L | 10 | 4/8/2019 6:55:33 PM | R58999 |
| Phosphorus, Orthophosphate (As P) | ND | 5.0 | Н | mg/L | 10 | 4/8/2019 6:55:33 PM | R58999 |
| Sulfate | 110 | 5.0 | | mg/L | 10 | 4/8/2019 6:55:33 PM | R58999 |
| Nitrate+Nitrite as N | ND | 1.0 | | mg/L | 5 | 4/8/2019 7:21:17 PM | R58999 |
| SM2320B: ALKALINITY | | | | | | Analyst | JRR |
| Bicarbonate (As CaCO3) | 99.36 | 20.00 | | mg/L Ca | 1 | 4/9/2019 12:45:40 PM | R59004 |
| Carbonate (As CaCO3) | ND | 2.000 | | mg/L Ca | 1 | 4/9/2019 12:45:40 PM | R59004 |
| Total Alkalinity (as CaCO3) | 99.36 | 20.00 | | mg/L Ca | 1 | 4/9/2019 12:45:40 PM | R59004 |
| EPA METHOD 7470: MERCURY | | | | | | Analyst | pmf |
| Mercury | ND | 0.00020 | | mg/L | 1 | 4/9/2019 12:28:03 PM | 44195 |
| EPA METHOD 7470: MERCURY | | | | | | Analyst | pmf |
| Mercury | ND | 0.00020 | | mg/L | 1 | 4/11/2019 3:53:40 PM | 44282 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | | Analyst | rde |
| Arsenic | ND | 0.020 | | mg/L | 1 | 4/25/2019 3:52:56 PM | A59436 |
| Barium | 0.076 | 0.020 | | mg/L | 1 | 4/11/2019 10:38:58 AM | A59145 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 4/11/2019 10:38:58 AM | A59145 |
| Calcium | 44 | 1.0 | | mg/L | 1 | 4/26/2019 2:46:20 PM | A59501 |
| Chromium | ND | 0.0060 | | mg/L | 1 | 4/11/2019 10:38:58 AM | A59145 |
| Copper | ND | 0.0060 | | mg/L | 1 | 4/11/2019 10:38:58 AM | A59145 |
| Iron | 0.070 | 0.020 | | mg/L | 1 | 4/23/2019 12:26:01 PM | A59359 |
| Lead | ND | 0.0050 | | mg/L | 1 | 4/25/2019 3:52:56 PM | A59436 |
| Magnesium | 7.7 | 1.0 | | mg/L | 1 | 4/11/2019 10:38:58 AM | A59145 |
| Manganese | 0.026 | 0.0020 | | mg/L | 1 | 4/23/2019 12:26:01 PM | |
| Potassium | 2.2 | 1.0 | | mg/L | 1 | 4/11/2019 10:38:58 AM | A59145 |
| Selenium | ND | 0.050 | | mg/L | 1 | 4/23/2019 12:26:01 PM | |
| Silver | ND | 0.0050 | | mg/L | 1 | 4/11/2019 10:38:58 AM | |
| Sodium | 35 | 1.0 | | mg/L | 1 | 4/11/2019 10:38:58 AM | |
| Uranium | ND | 0.10 | | mg/L | 1 | 4/23/2019 12:26:01 PM | A59359 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1904422**

Date Reported: 5/14/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Downstream

 Project:
 San Juan River 4-5-19
 Collection Date: 4/5/2019 12:50:00 PM

 Lab ID:
 1904422-004
 Matrix: AQUEOUS
 Received Date: 4/6/2019 10:45:00 AM

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------------|----|----------------------|--------|
| EPA METHOD 6010B: DISSOLVED METALS | | | | | Analyst | : rde |
| Zinc | ND | 0.020 | mg/L | 1 | 4/25/2019 3:52:56 PM | A59436 |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | Analyst | : rde |
| Arsenic | ND | 0.020 | mg/L | 1 | 4/25/2019 3:19:51 PM | 44198 |
| Barium | 0.19 | 0.020 | mg/L | 1 | 4/11/2019 9:34:13 AM | 44198 |
| Cadmium | ND | 0.0020 | mg/L | 1 | 4/11/2019 9:34:13 AM | 44198 |
| Chromium | ND | 0.0060 | mg/L | 1 | 4/11/2019 9:34:13 AM | 44198 |
| Lead | ND | 0.0050 | mg/L | 1 | 4/25/2019 3:19:51 PM | 44198 |
| Selenium | ND | 0.050 | mg/L | 1 | 4/11/2019 9:34:13 AM | 44198 |
| Silver | ND | 0.0050 | mg/L | 1 | 4/11/2019 9:34:13 AM | 44198 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst | : NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 4/8/2019 4:32:11 PM | G58973 |
| Surr: BFB | 109 | 72.8-125 | %Rec | 1 | 4/8/2019 4:32:11 PM | G58973 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | : RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/10/2019 2:35:00 AM | B59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/10/2019 2:35:00 AM | B59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/10/2019 2:35:00 AM | B59003 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/10/2019 2:35:00 AM | B59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/10/2019 2:35:00 AM | B59003 |
| Surr: 1,2-Dichloroethane-d4 | 103 | 70-130 | %Rec | 1 | 4/10/2019 2:35:00 AM | B59003 |
| Surr: 4-Bromofluorobenzene | 96.2 | 70-130 | %Rec | 1 | 4/10/2019 2:35:00 AM | B59003 |
| Surr: Dibromofluoromethane | 98.9 | 70-130 | %Rec | 1 | 4/10/2019 2:35:00 AM | B59003 |
| Surr: Toluene-d8 | 94.0 | 70-130 | %Rec | 1 | 4/10/2019 2:35:00 AM | B59003 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order **1904422**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/14/2019

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Trip Blank

Project: San Juan River 4-5-19 **Collection Date:**

Lab ID: 1904422-005 **Matrix:** TRIP BLANK **Received Date:** 4/6/2019 10:45:00 AM

| Analyses | Result | RL Qu | al Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|--------|----------|----|----------------------|--------|
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | : RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 4/10/2019 2:59:00 AM | B59003 |
| Toluene | ND | 1.0 | μg/L | 1 | 4/10/2019 2:59:00 AM | B59003 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 4/10/2019 2:59:00 AM | B59003 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 4/10/2019 2:59:00 AM | B59003 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 4/10/2019 2:59:00 AM | B59003 |
| Surr: 1,2-Dichloroethane-d4 | 102 | 70-130 | %Rec | 1 | 4/10/2019 2:59:00 AM | B59003 |
| Surr: 4-Bromofluorobenzene | 97.0 | 70-130 | %Rec | 1 | 4/10/2019 2:59:00 AM | B59003 |
| Surr: Dibromofluoromethane | 100 | 70-130 | %Rec | 1 | 4/10/2019 2:59:00 AM | B59003 |
| Surr: Toluene-d8 | 94.5 | 70-130 | %Rec | 1 | 4/10/2019 2:59:00 AM | B59003 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

ND

ND

0.50

0.20

WO#: **1904422**

14-May-19

Client: Western Refining Southwest, Inc.

Project: San Juan River 4-5-19

| Sample ID: MB | SampType: mblk | | | Tes | TestCode: EPA Method 300.0: Anions | | | | | |
|----------------------------------|-------------------------|------|-----------|----------------|------------------------------------|----------|-------------|------|----------|------|
| Client ID: PBW | Batch ID: R58998 | | | F | RunNo: 5 | 8998 | | | | |
| Prep Date: | Analysis Date: 4/8/2019 | | | SeqNo: 1985185 | | | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride | ND | 0.10 | | | | | | | | |
| Chloride | ND | 0.50 | | | | | | | | |
| Bromide | ND | 0.10 | | | | | | | | |
| Phosphorus, Orthophosphate (As P | ND | 0.50 | | | | | | | | |
| Sulfate | ND | 0.50 | | | | | | | | |
| Nitrate+Nitrite as N | ND | 0.20 | | | | | | | | |
| 0 | | | | _ | | | | | | |

| Sample ID: LCS | SampType: Ics TestCode: EPA Method | | | | | | 300.0: Anions | | | |
|----------------------------------|------------------------------------|-----------------|-----------|-------------|-----------|----------|---------------|------|----------|------|
| Client ID: LCSW | Batch | n ID: R5 | 8998 | F | RunNo: 58 | 8998 | | | | |
| Prep Date: | Analysis D | ate: 4/ | 8/2019 | 5 | SeqNo: 19 | 985187 | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride | 0.53 | 0.10 | 0.5000 | 0 | 106 | 90 | 110 | | | |
| Chloride | 4.9 | 0.50 | 5.000 | 0 | 98.9 | 90 | 110 | | | |
| Bromide | 2.5 | 0.10 | 2.500 | 0 | 99.5 | 90 | 110 | | | |
| Phosphorus, Orthophosphate (As P | 5.0 | 0.50 | 5.000 | 0 | 99.0 | 90 | 110 | | | |
| Sulfate | 10 | 0.50 | 10.00 | 0 | 100 | 90 | 110 | | | |
| Nitrate+Nitrite as N | 3.6 | 0.20 | 3.500 | 0 | 102 | 90 | 110 | | | |

| Sample ID: MB | SampT | ype: ME | BLK | Tes | TestCode: EPA Method 300.0: Anions | | | | | |
|----------------|------------|-----------------|-----------|-------------|------------------------------------|----------|-------------|------|----------|------|
| Client ID: PBW | Batch | n ID: R5 | 8999 | F | RunNo: 5 | 8999 | | | | |
| Prep Date: | Analysis D | ate: 4/ | 8/2019 | 8 | SeqNo: 1 | 985270 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | ND | 0.50 | | | | | | | | |
| Bromide | ND | 0.10 | | | | | | | | |
| | | | | | | | | | | |

| Sample ID: LCS | SampT | ype: LC | S | Tes | tCode: El | 5 | | | | |
|----------------------------------|------------|-----------------|-----------|-------------|-----------|----------|-------------|------|----------|------|
| Client ID: LCSW | Batch | n ID: R5 | 8999 | F | | | | | | |
| Prep Date: | Analysis D | ate: 4/ | 8/2019 | S | SeqNo: 1 | 985271 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | 4.8 | 0.50 | 5.000 | 0 | 96.0 | 90 | 110 | | | |
| Bromide | 2.4 | 0.10 | 2.500 | 0 | 95.8 | 90 | 110 | | | |
| Phosphorus, Orthophosphate (As P | 4.8 | 0.50 | 5.000 | 0 | 96.3 | 90 | 110 | | | |
| Sulfate | 9.9 | 0.50 | 10.00 | 0 | 99.4 | 90 | 110 | | | |
| Nitrate+Nitrite as N | 3.5 | 0.20 | 3.500 | 0 | 99.5 | 90 | 110 | | | |

Qualifiers:

Sulfate

Nitrate+Nitrite as N

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1904422**

14-May-19

Client: Western Refining Southwest, Inc.

Project: San Juan River 4-5-19

Sample ID: MB SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBW Batch ID: R59098 RunNo: 59098

Prep Date: Analysis Date: 4/11/2019 SeqNo: 1989286 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Fluoride ND 0.10

Sample ID: LCS SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSW Batch ID: R59098 RunNo: 59098

Prep Date: Analysis Date: 4/11/2019 SeqNo: 1989287 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Fluoride 0.51 0.10 0.5000 0 103 90 110

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1904422**

14-May-19

Client: Western Refining Southwest, Inc.

Project: San Juan River 4-5-19

Sample ID: LCS-44215 SampType: LCS TestCode: EPA Method 8015D: Diesel Range Client ID: LCSW Batch ID: 44215 RunNo: 59076 Prep Date: 4/9/2019 Analysis Date: 4/11/2019 SeqNo: 1988558 Units: mg/L PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Diesel Range Organics (DRO) 0.40 0 3.1 2.500 125 66.7 148 Surr: DNOP 0.29 0.2500 114 52.7 168

Sample ID: MB-44215 SampType: MBLK TestCode: EPA Method 8015D: Diesel Range Client ID: PBW Batch ID: 44215 RunNo: 59076 Prep Date: 4/9/2019 Analysis Date: 4/11/2019 SeqNo: 1988559 Units: mg/L Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

| Diesel Range Organics (DRO) | ND | 0.40 |
|--------------------------------|----|------|
| Motor Oil Range Organics (MRO) | ND | 2.5 |

Surr: DNOP 0.58 0.5000 116 52.7 168

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904422**

14-May-19

Client: Western Refining Southwest, Inc.

Project: San Juan River 4-5-19

Sample ID: RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBW Batch ID: G58973 RunNo: 58973

Prep Date: Analysis Date: 4/8/2019 SegNo: 1984235 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 0.050

Surr: BFB 18 20.00 92.4 72.8 125

Sample ID: 2.5UG GRO LCS SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSW Batch ID: G58973 RunNo: 58973

Prep Date: Analysis Date: 4/8/2019 SeqNo: 1984237 Units: mg/L

LowLimit Analyte Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 77.7 0.46 0.050 0.5000 0 91.0 130 Surr: BFB 21 20.00 107 72.8 125

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1904422**

14-May-19

Client: Western Refining Southwest, Inc.

Project: San Juan River 4-5-19

| Sample ID: 100ng lcs2 | SampT | SampType: LCS TestCode: EPA Method 8 | | | | | 8260: Volatile | s Short L | .ist | |
|-----------------------------|--------------------------|--------------------------------------|-----------|----------------------------|-------------------|----------|----------------|-----------|----------|------|
| Client ID: LCSW | Batch | n ID: B5 | 9003 | F | RunNo: 5 9 | 9003 | | | | |
| Prep Date: | Analysis Date: 4/10/2019 | | | SeqNo: 1986087 Unit | | | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 22 | 1.0 | 20.00 | 0 | 112 | 70 | 130 | | | |
| Toluene | 22 | 1.0 | 20.00 | 0 | 108 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 10 | | 10.00 | | 99.8 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.8 | | 10.00 | | 98.2 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.9 | | 10.00 | | 99.1 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.4 | | 10.00 | | 94.4 | 70 | 130 | | | |

| Sample ID: rb2 | SampT | уре: МЕ | BLK | Tes | TestCode: EPA Method 8260: Volatiles Short List | | | | | |
|--------------------------------|--------------------------|-------------------------|-----------|-------------|---|----------|-----------|------|----------|------|
| Client ID: PBW | Batch | Batch ID: B59003 | | | RunNo: 5 | 9003 | | | | |
| Prep Date: | Analysis Date: 4/10/2019 | | | \$ | SeqNo: 1986088 Units: μg/L | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 10 | | 10.00 | | 101 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.8 | | 10.00 | | 98.2 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 10 | | 10.00 | | 101 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.4 | | 10.00 | | 94.2 | 70 | 130 | | | |

| Sample ID: RB | SampT | уре: МЕ | BLK | Tes | TestCode: EPA Method 8260: Volatiles Short List | | | | | |
|--------------------------------|------------|----------------|-----------|-------------|---|----------|-------------|------|----------|------|
| Client ID: PBW | Batch | ID: SL | 59035 | F | RunNo: 5 | 9035 | | | | |
| Prep Date: | Analysis D | ate: 4/ | 10/2019 | S | SeqNo: 19 | 987559 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 1.0 | | | | | _ | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 10 | | 10.00 | | 103 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 10 | | 10.00 | | 99.6 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 10 | | 10.00 | | 100 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.3 | | 10.00 | | 93.2 | 70 | 130 | | | |

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1904422**

14-May-19

Client: Western Refining Southwest, Inc.

Project: San Juan River 4-5-19

Sample ID: MB-44195 SampType: MBLK TestCode: EPA Method 7470: Mercury

Client ID: **PBW** Batch ID: **44195** RunNo: **59010**

Prep Date: 4/8/2019 Analysis Date: 4/9/2019 SeqNo: 1985400 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury ND 0.00020

Sample ID: LCS-44195 SampType: LCS TestCode: EPA Method 7470: Mercury

Client ID: LCSW Batch ID: 44195 RunNo: 59010

Prep Date: 4/8/2019 Analysis Date: 4/9/2019 SeqNo: 1985401 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.0049 0.00020 0.005000 0 98.9 80 120

Sample ID: 1904422-001DMS SampType: MS TestCode: EPA Method 7470: Mercury

Client ID: Upstream Batch ID: 44195 RunNo: 59010

Prep Date: 4/8/2019 Analysis Date: 4/9/2019 SeqNo: 1985407 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.0052 0.00020 0.005000 .00009702 102 75 125

Sample ID: 1904422-001DMSD SampType: MSD TestCode: EPA Method 7470: Mercury

Client ID: Upstream Batch ID: 44195 RunNo: 59010

Prep Date: 4/8/2019 Analysis Date: 4/9/2019 SeqNo: 1985408 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.0054 0.00020 0.005000 .00009702 105 75 125 2.90 20

Mercury 0.00034 0.00020 0.0000000 00009702 105 75 125 2.90 20

Sample ID: MB-44282 SampType: MBLK TestCode: EPA Method 7470: Mercury

Client ID: PBW Batch ID: 44282 RunNo: 59086

Prep Date: 4/10/2019 Analysis Date: 4/11/2019 SeqNo: 1988693 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury ND 0.00020

Sample ID: LCS-44282 SampType: LCS TestCode: EPA Method 7470: Mercury

Client ID: LCSW Batch ID: 44282 RunNo: 59086

Prep Date: 4/10/2019 Analysis Date: 4/11/2019 SeqNo: 1988694 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.0050 0.00020 0.005000 0 100 80 120

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 15 of 22

Hall Environmental Analysis Laboratory, Inc.

WO#: 1904422

14-May-19

Client: Western Refining Southwest, Inc.

Project: San Juan River 4-5-19

Mercury

Sample ID: LCSD-44282 SampType: LCSD TestCode: EPA Method 7470: Mercury

Client ID: LCSS02 Batch ID: 44282 RunNo: 59086

0.0048 0.00020

Prep Date: 4/10/2019 Analysis Date: 4/11/2019 SeqNo: 1988695 Units: mg/L

0.005000

Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 0

96.0

80

120

4.17

20

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit Page 16 of 22

Hall Environmental Analysis Laboratory, Inc.

ND

WO#: **1904422**

14-May-19

Client: Western Refining Southwest, Inc.

Project: San Juan River 4-5-19

Sample ID: MB-A SampType: MBLK TestCode: EPA Method 6010B: Dissolved Metals

Client ID: PBW Batch ID: A59145 RunNo: 59145

1.0

Prep Date: Analysis Date: 4/11/2019 SeqNo: 1991022 Units: mg/L Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result Barium ND 0.020 Cadmium ND 0.0020 ND 0.0060 Chromium 0.0060 Copper ND Magnesium ND 1.0 Potassium ND 1.0 Silver ND 0.0050

| Sample ID: LCS-A | TestCode: EPA Method 6010B: Dissolved Metals | | | | | | | | | | |
|------------------|--|-----------|-----------|-------------|-----------------------|----------|-------------|------|----------|------|--|
| Client ID: LCSW | Bato | ch ID: A5 | 9145 | F | RunNo: 59145 | | | | | | |
| Prep Date: | Analysis | Date: 4/ | 11/2019 | S | SeqNo: 1991024 | | Units: mg/L | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Barium | 0.48 | 0.020 | 0.5000 | 0 | 95.5 | 80 | 120 | | | | |
| Cadmium | 0.50 | 0.0020 | 0.5000 | 0 | 99.3 | 80 | 120 | | | | |
| Chromium | 0.49 | 0.0060 | 0.5000 | 0 | 97.7 | 80 | 120 | | | | |
| Copper | 0.51 | 0.0060 | 0.5000 | 0 | 101 | 80 | 120 | | | | |
| Magnesium | 49 | 1.0 | 50.00 | 0 | 98.9 | 80 | 120 | | | | |
| Potassium | 49 | 1.0 | 50.00 | 0 | 97.3 | 80 | 120 | | | | |
| Silver | 0.10 | 0.0050 | 0.1000 | 0 | 99.8 | 80 | 120 | | | | |
| Sodium | 48 | 1.0 | 50.00 | 0 | 97.0 | 80 | 120 | | | | |

| Sample ID: LCSD-A | SD | TestCode: EPA Method 6010B: Dissolved Metals | | | | | | | | | |
|-------------------|----------|--|-----------|-------------|---------------------|----------|-------------|-------|----------|------|--|
| Client ID: LCSS02 | Bato | ch ID: A5 | 9145 | F | RunNo: 59145 | | | | | | |
| Prep Date: | Analysis | Date: 4/ | 11/2019 | S | SeqNo: 19 | 991025 | Units: mg/L | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Barium | 0.48 | 0.020 | 0.5000 | 0 | 95.7 | 80 | 120 | 0.193 | 20 | | |
| Cadmium | 0.50 | 0.0020 | 0.5000 | 0 | 101 | 80 | 120 | 1.27 | 20 | | |
| Chromium | 0.50 | 0.0060 | 0.5000 | 0 | 99.1 | 80 | 120 | 1.40 | 20 | | |
| Copper | 0.51 | 0.0060 | 0.5000 | 0 | 102 | 80 | 120 | 0.919 | 20 | | |
| Magnesium | 50 | 1.0 | 50.00 | 0 | 99.8 | 80 | 120 | 0.875 | 20 | | |
| Potassium | 49 | 1.0 | 50.00 | 0 | 98.4 | 80 | 120 | 1.11 | 20 | | |
| Silver | 0.10 | 0.0050 | 0.1000 | 0 | 99.9 | 80 | 120 | 0.113 | 20 | | |
| Sodium | 49 | 1.0 | 50.00 | 0 | 97.4 | 80 | 120 | 0.465 | 20 | | |

Qualifiers:

Sodium

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 17 of 22

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904422**

14-May-19

| Client: | Western Refining Southwest, Inc. |
|---------|----------------------------------|
|---------|----------------------------------|

Project: San Juan River 4-5-19

| Sample ID: MB-A | SampType: MBLK | | | TestCode: EPA Method 6010B: Dissolved Metals | | | | | | |
|------------------|-------------------------|-----------------|-----------|--|----------|----------|-------------|------|----------|------|
| Client ID: PBW | Batch ID: A59359 | | | F | tunNo: 5 | 9359 | | | | |
| Prep Date: | Analysis | Date: 4/ | 23/2019 | SeqNo: 1999259 | | | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Iron | ND | 0.020 | | | | | | | | |
| Manganese | ND | 0.0020 | | | | | | | | |
| Selenium | ND | 0.050 | | | | | | | | |
| Uranium | ND | 0.10 | | | | | | | | |
| Sample ID: LCS-A | Samp | Type: LC | S | TestCode: EPA Method 6010B: Dissolved Metals | | | | | | |

| Sample ID. LCS-A | Samp rype. LCS restcode. EPA Method (| | | | | | סטוטם: טומאט | ived weta | 115 | |
|------------------|---------------------------------------|-----------------|-----------|-------------|-----------|----------|--------------|-----------|----------|------|
| Client ID: LCSW | Bato | h ID: A5 | 9359 | F | RunNo: 59 | | | | | |
| Prep Date: | Analysis | Date: 4/ | 23/2019 | 8 | SeqNo: 19 | 999261 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Iron | 0.54 | 0.020 | 0.5000 | 0 | 108 | 80 | 120 | | | |
| Manganese | 0.53 | 0.0020 | 0.5000 | 0 | 106 | 80 | 120 | | | |
| Selenium | 0.54 | 0.050 | 0.5000 | 0 | 107 | 80 | 120 | | | |
| Uranium | 0.50 | 0.10 | 0.5000 | 0 | 99.7 | 80 | 120 | | | |

| Sample ID: MB-A | Samp1 | Туре: МЕ | BLK | TestCode: EPA Method 6010B: Dissolved Metals | | | | | | | |
|-----------------|--------------------------------|-----------------|-----------|--|----------|----------|-------------|------|----------|------|--|
| Client ID: PBW | Batc | F | RunNo: 5 | 9436 | | | | | | | |
| Prep Date: | Date: Analysis Date: 4/25/2019 | | | S | SeqNo: 2 | 002144 | Units: mg/L | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Arsenic | ND | 0.020 | | | | | | | | | |
| Lead | ND | 0.0050 | | | | | | | | | |
| Zino | ND | 0.020 | | | | | | | | | |

| Sample ID: LCS-A | Samp | Type: LC | S | TestCode: EPA Method 6010B: Dissolved Metals | | | | | | |
|------------------|------------|-------------------|-----------|--|-----------|-------------|-----------|------|----------|------|
| Client ID: LCSW | Bato | h ID: A5 9 | 9436 | R | tunNo: 59 | 9436 | | | | |
| Prep Date: | Analysis I | Date: 4/ 2 | 25/2019 | S | 002145 | Units: mg/L | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | 0.55 | 0.020 | 0.5000 | 0 | 110 | 80 | 120 | | | |
| Lead | 0.54 | 0.0050 | 0.5000 | 0 | 109 | 80 | 120 | | | |
| Zinc | 0.54 | 0.020 | 0.5000 | 0 | 109 | 80 | 120 | | | |

| Sample ID: MB-A | SampT | BLK | Tes | TestCode: EPA Method 6010B: Dissolved Metals | | | | | | |
|-----------------|--------------------------|--|-----------|--|---------|----------|-------------|------|----------|------|
| Client ID: PBW | Batch | Batch ID: A59501 RunNo: 59 | | | | | | | | |
| Prep Date: | Analysis Date: 4/26/2019 | | | S | eqNo: 2 | 004645 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Calairea | ИD | 4.0 | • | | · | | | | | |

Calcium ND 1.0

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

50

WO#: 1904422

14-May-19

Client: Western Refining Southwest, Inc.

Project: San Juan River 4-5-19

Calcium

Sample ID: LCSD-A SampType: LCSD TestCode: EPA Method 6010B: Dissolved Metals

Client ID: LCSS02 Batch ID: **A59501** RunNo: 59501

1.0

Analysis Date: 4/26/2019 SeqNo: 2004652 Prep Date: Units: mg/L

50.00

Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 0

99.6

80

120

0.837

20

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit Page 19 of 22

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904422**

14-May-19

Client: Western Refining Southwest, Inc.

Project: San Juan River 4-5-19

Sample ID: MB-44198 SampType: MBLK TestCode: EPA 6010B: Total Recoverable Metals

Client ID: **PBW** Batch ID: **44198** RunNo: **59145**

Prep Date: 4/8/2019 Analysis Date: 4/11/2019 SeqNo: 1991008 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Barium
 ND
 0.020

 Cadmium
 ND
 0.0020

 Chromium
 ND
 0.0060

 Selenium
 ND
 0.050

 Silver
 ND
 0.0050

Sample ID: LCS-44198 SampType: LCS TestCode: EPA 6010B: Total Recoverable Metals Client ID: LCSW Batch ID: 44198 RunNo: 59145 Analysis Date: 4/11/2019 SeqNo: 1991009 Prep Date: 4/8/2019 Units: mg/L PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Analyte Qual 0.5000 80 0.48 0.020 0 96.7 120 Barium Cadmium 0.50 0.0020 0.5000 0 100 80 120 0 98.7 80 0.49 0.0060 0.5000 120 Chromium 0 106 Selenium 0.53 0.050 0.5000 80 120 0.10 Silver 0.0050 0.1000 0 102 80 120

Sample ID: 1904422-001DMS SampType: MS TestCode: EPA 6010B: Total Recoverable Metals Client ID: Batch ID: 44198 RunNo: 59145 Upstream Prep Date: 4/8/2019 Analysis Date: 4/11/2019 SeqNo: 1991014 Units: mg/L Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte 0.1394 95.4 75 0.62 0.020 125 0.5000 Barium Cadmium 0.50 0.0020 0.5000 101 75 125 0

125 99.7 Chromium 0.50 0.0060 0.5000 0.002916 75 Selenium 0.52 0.050 0.5000 0 104 75 125 Silver 0.10 0 0.0050 0.1000 102 75 125

Sample ID: 1904422-001DMSD SampType: MSD TestCode: EPA 6010B: Total Recoverable Metals

Client ID: Upstream Batch ID: 44198 RunNo: 59145

| | | | | - | | | | | | | |
|---------------------|----------|-----------------|-----------|-------------|----------|----------|-------------|--------|----------|------|--|
| Prep Date: 4/8/2019 | Analysis | Date: 4/ | 11/2019 | 5 | SeqNo: 1 | 991015 | Units: mg/L | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Barium | 0.63 | 0.020 | 0.5000 | 0.1394 | 98.5 | 75 | 125 | 2.46 | 20 | | |
| Cadmium | 0.51 | 0.0020 | 0.5000 | 0 | 101 | 75 | 125 | 0.665 | 20 | | |
| Chromium | 0.50 | 0.0060 | 0.5000 | 0.002916 | 99.7 | 75 | 125 | 0.0516 | 20 | | |
| Selenium | 0.54 | 0.050 | 0.5000 | 0 | 107 | 75 | 125 | 3.38 | 20 | | |
| Silver | 0.10 | 0.0050 | 0.1000 | 0 | 104 | 75 | 125 | 2.04 | 20 | | |
| | | | | | | | | | | | |

Qualifiers:

* Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1904422**

14-May-19

Client: Western Refining Southwest, Inc.

Project: San Juan River 4-5-19

Sample ID: 1904422-001DMS SampType: MS TestCode: EPA 6010B: Total Recoverable Metals

Client ID: Upstream Batch ID: 44198 RunNo: 59436

Prep Date: 4/8/2019 Analysis Date: 4/25/2019 SeqNo: 2002164 Units: mg/L

PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result В Arsenic 0.53 0.020 0.5000 0 105 75 125 Lead 0.48 0.0050 0.5000 0 95.5 75 125

Sample ID: 1904422-001DMSD SampType: MSD TestCode: EPA 6010B: Total Recoverable Metals

Client ID: Upstream Batch ID: 44198 RunNo: 59436

Prep Date: 4/8/2019 Analysis Date: 4/25/2019 SeqNo: 2002165 Units: mg/L

LowLimit Analyte Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual 75 20 Arsenic 0.53 0.020 0.5000 0 105 125 0.127 В Lead 0.48 0.0050 0 95.9 75 0.413 20 0.5000 125

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904422**

14-May-19

Client: Western Refining Southwest, Inc.

Project: San Juan River 4-5-19

Sample ID: mb-1 alk SampType: MBLK TestCode: SM2320B: Alkalinity

Client ID: PBW Batch ID: R59004 RunNo: 59004

Prep Date: Analysis Date: 4/9/2019 SeqNo: 1985959 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) ND 20.00

Sample ID: Ics-1 alk SampType: LCS TestCode: SM2320B: Alkalinity

Client ID: LCSW Batch ID: R59004 RunNo: 59004

Prep Date: Analysis Date: 4/9/2019 SeqNo: 1985960 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) 76.12 20.00 80.00 0 95.2 90 110

Sample ID: mb-2 alk SampType: MBLK TestCode: SM2320B: Alkalinity

Client ID: PBW Batch ID: R59004 RunNo: 59004

Prep Date: Analysis Date: 4/9/2019 SeqNo: 1985984 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) ND 20.00

Sample ID: Ics-2 alk SampType: LCS TestCode: SM2320B: Alkalinity

Client ID: LCSW Batch ID: R59004 RunNo: 59004

Prep Date: Analysis Date: 4/9/2019 SeqNo: 1985985 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) 76.80 20.00 80.00 0 96.0 90 110

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 22 of 22



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

| CI | ient Name: | Western R | efining South | w Work | Order Number: | 190 | 4422 | | | RcptN | o: 1 | |
|--------|-------------------------------------|---------------|-----------------|------------------|---------------|-------|----------|------------|------|--------------------------|------------------|------------|
| Re | ceived By: | Isaiah Ori | tiz | 4/6/201 | 9 10:45:00 AM | | | I | 04 | | | |
| Co | mpleted By: | Erin Mele | ndrez | 4/8/201 | 9 8:26:46 AM | | | I, U, U | 1 | | | |
| Re | viewed By: | LB | | 11/1 | 9 | | | 1 | | | | |
| L | B: | JJC | 4-8 | -19 | | | | | | | | |
| Ch | ain of Cust | tody | 1 0 | 1) | | | | | | | | |
| | Is Chain of Cu | | lete? | | | Yes | ~ | No [| 1 | Not Present | | |
| | How was the s | | | | | Cou | | | | | | |
| Lo | og In | | | | | | | | | | | |
| 023 | Was an attem | pt made to o | cool the samp | les? | | Yes | ✓ | No 🗆 | | NA \square | | |
| | | | | | | | _ | | 7 | _ | | |
| 4. V | Vere all samp | les received | at a tempera | ture of >0° C | to 6.0°C | Yes | V | No L | J | NA 🗌 | | |
| 5. \$ | Sample(s) in p | roper conta | iner(s)? | | | Yes | V | No 🗆 |] | | | |
| 6. 5 | Sufficient samp | ole volume f | or indicated te | est(s)? | | Yes | ✓ | No 🗆 |] | | | |
| | | | | operly preserve | ed? | Yes | V | No 🗆 |] | | | |
| | Vas preservat | | 15. 15 | - F 7 F | | Yes | | No 🗸 | | NA 🗌 | | |
| 9 \ | OA vials have | zero heads | enace? | | | Yes | V | No 🗆 | l N | o VOA Vials 🗌 | | |
| | Nere any sam | | | rokon? | | Yes | | No 🗹 | | O VOA VIAIS | | |
| 10. 1 | vere any sam | ipie containe | ers received b | iokeii? | | res | | NO 💌 | # | of preserved | | |
| | oes paperwoi Note discrepa | | |) | | Yes | ✓ | No 🗆 | , | ottles checked or pH: | 12 0 >12 unle | ess noted) |
| | re matrices co | | | | | Yes | V | No 🗌 | | Adjusted? | | |
| 13. ls | s it clear what | analyses we | ere requested | ? | | Yes | ✓ | No 🗌 | | | | |
| | Vere all holdin If no, notify cu | | | | | Yes | V | No 🗆 | | Checked by: | MC | 4-8-19 |
| | cial Handli | | | | | | | | | | | |
| | | | | vith this order? | | | | ., г | 7 | | | |
| 15. | | | screpancies v | with this order? | | Yes | | No L | | NA 🗸 | | |
| | Person N | | | | Date: | - | | | | | | |
| | By Whor | | | | Via: |] eM | ail [| Phone Fa | ax 🗌 | In Person | | |
| | Regardir | - | | | | | | | | | | |
| | Client In: | structions: | 1 | | | | | | | | | |
| 16. | Additional rem | narks: | | | | | | | | | | |
| 17. | Cooler Inforn | <u>nation</u> | | | | | | | | | | |
| | Cooler No | Temp °C | Condition | Seal Intact | Seal No S | eal D | ate | Signed By | | | | |
| | 1 | 5.9 | Good | Yes | | | | | | | | |
| | 2 | 3.2 | Good | Yes | | | | | | | | |
| | 3 | 2.8 | Good | Yes | | | | | | | | |

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| | <u>u</u> | ANALYSIS LABORATORY | www.hallenvironmental.com | 4901 Hawkins NE - Albuquerque, NM 87109 | | ınal | | | I | ota | Τ : | tals | RCRA 8 Me | | | × | | | | | | | Analytical Methods | |
| | HAII | | w.ha | Ш | Tel. 505-345-3975 | A | | | (SN | | | | 01£8) HAG | | | | | | | | | | alytic | |
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| | _ | | | Haw | 305-3 | | L | | | | | | TPH (Metho | | | | | | | | | | See | |
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| | | | | | | | | | gjmccartney@marathonpetroleum.com | 55 | | 82 | 22 | | | | | | = | | | | 7 JSS D | 20 |
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| | | | San Juan River | 0 | Project #: Semi-Annual Event | 66 | | Š | oube | 919-561-7055 | % □ | 3.6 |) | 8 | | | | | | | | | 7 2 | 7 |
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| | | | an | 7 5 | -An | 4500081399 | | McCartney |)mar | cy Payne | ₩ Yes | Sample Temperature: | Preservative Type | 당 | Neat | HNO3 | HNO3 | H_2SO_4 | Neat | | | | Woller | 5 |
| j | d Time: | О | | য | emi | # 46 | ager | Σ. | ey@ | acy | M | nper | | 10 | | | 51.00 | | | | | | 7 5 | |
| | Turn-Around | X Standard | Project Name | | # S | HEAL PO# | Project Manager: | Gregory J. | artn | Sampler: Tra | | Ten | Container Type and # | 40ml VOA-5 | E -7 | ml ic-1 | ml ic-1 | ml ic-1 | ш ic-1 | | | | 13 3 G | 1 |
| ' | rn-Ā | Sta | oject | Date: | oject | EAL | oject | rego | mcc | mple | On Ice: | mple | Container 「ype and # | m V | 250 ml amber-1 | 250 ml plastic-1 | 125 ml plastic-1 | 125 ml plastic-1 | 500 ml plastic-1 | | | | Received by: | { |
| L | | × | - A | | P | Ξ | <u>P</u> | <u> </u> | gj | Sa | ō | Sa | 0,7 | 40 | | <u>.</u> | | | <u>.</u> | | | | 1 S S 1- | 1 |
| = | _ | 2 | | | | | | | X Level 4 (Full Validation) | | | | □ | | | | | | | | | | | |
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| | 00 | wes | | | 741 | | | | ∑ N N | | | | Sample Request ID | Upstream | Upstream | Upstream | Upstream | Upstream | Upstream | | | | | |
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| - | g | J So | inal | 90 | Z | 338 | | | evel | | | | amp | _ | | | 1 | _ | | | | | | ≸ |
| 4 | IST | ninç | erm | 49 | field | 1-2; | | | × | | | | S | | | | | | | | | | in the property of the propert | MAC |
| (| Chain-of-Custody Record | Western Refining Southwest, Inc. | Bloomfield Terminal | 50 CR 4990 | Bloomfield, NM 87413 | 419-421-2338 | | | | | EXCEL | | Matrix | H_2O | H ₂ 0 | H ₂ 0 | H ₂ O | H ₂ O | H ₂ O | | | | Relinquished by: | 300 |
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| Mestern Refining Southwest, Inc. X Sandard Rush Project Manne; San Juan River Mestern Refining Southwest, Inc. X Sandard Rush Project Manne; San Juan River Address: 60 CR 4.93 A | 5 | | -io- | stody Record | i urn-Around | : Elme: | | | | - | AL | | > Z | IRC | Z | N N | F | | |
| Project Name: San Juan River Address: 50 CR 4390 | | /este | rn Refii | ing Southwest, Inc. | X Standard | □ Rush | | | | | AN | | SIS | 5 | 80 | 2 | 0 | R | |
| Project & Semi-Annual Event Proj | Ω | loom | ifield Te | rminal | Project Name | : San Juan | River | | | | J.www | allen | ironm | ental. | COM | | | | |
| Figure F | lling Ac | ddress | 50 CR | 4990 | Date: | - 1 | 3 | ` | 4901 | Hawk | ns NE | | enbno | rque, | NM 8 | 7109 | | | |
| ## 419-421-2338 HEAL Po# 4500081339 Pribad: Project Manager: Pro | | | Bloom | field, NM 87413 | Project #: Se | mi-Annual | Event | | Tel. | 505-34 | 15-397 | 2 | Fax 5 | 05-34 | 5-410 | 70 | | | |
| Project Manager Project Ma | one #: | | 419-42 | 1-2338 | HEAL PO# | 45000813 | 66 | | | | | nal | Street, Square | edne | st | | | | |
| Container Cont | ail or F | ax#: | | | Project Mana | ger: | | | _ | | | | _ | _ | | | 2 | _ | _ |
| Time Matrix Sample Request ID Type and # Type Sample Transperature. Sign of the Sample Transpera | 'QC Paα | ckage: | | | Gregory J. | McCartne | ^ | | | | | | | | | | | ſη | |
| Time Matrix Sample Request ID Container Preservative HEAL No. Type And Ho. And Hear A | Standa | ırd | | X Level 4 (Full Validation) | gjmccartne | /@maratho | npetroleum.com | | | | (3)(| | | | | | | 111111111111111111111111111111111111111 | |
| Time Matrix Sample Request D Type and # Type EACEL | Other | | | | Sampler: Tra | cy Payne 9 | 919-561-7055 | | | 7539 | | | | | | | |) III - | (1 |
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| H2O North of 45 40ml VOA-5 HCl -002 X X X X X X X X X | Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL NO. | | | 1893 Markey Verillander | | | | | | l bəvlossiQ | | IIO IPIAIIAO | Rir Bubbles |
| H2O North of 45 amber-1 Neat X X | | 145 | H ₂ 0 | North of 45 | 40ml VOA-5 | Ю | -002 | - | | - | - | - | ₩ | - | - | | +- | | |
| H ₂ O North of 45 Diastic-1 HNO ₃ HNO ₃ H ₂ O North of 45 Diastic-1 HNO ₃ H ₂ O North of 45 Diastic-1 H ₂ O ₄ H ₂ O North of 45 Diastic-1 Neat L ₂ O North of 45 Diastic-1 Neat L ₂ O | | | H ₂ O | North of 45 | 250 ml amber-1 | Neat | | | × | | | | | | | | | | |
| H2O North of 45 125 ml HNO3 HNO3 H2O North of 45 plastic-1 H2O4 H2 | | | H ₂ O | North of 45 | 250 ml plastic-1 | HNO3 | | | | | | × | | | | | | | |
| H20 North of 45 125 ml H2S04 | | | H ₂ O | North of 45 | 125 ml plastic-1 | HNO3 | | | | | | | | | | × | × | | |
| H20 North of 45 500 ml Neat | | | H ₂ O | North of 45 | 125 ml plastic-1 | H ₂ SO ₄ | | | | | | | | | | | × | | |
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| | 2 | is | www.hallenvironmental.com | Albuquerque, NM 87109 | Fax | Analysis Request | | (°OS | ' [†] Oc | ∃, _S O | Ν'ε | ON'I | O,7) anoinA | | | | | | | | | 104 | Analytical Methods | | | |
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| | | □ Rush | n Ju | N | Inn | 800 | | Sart | ara | ayr | SS | Ire: 3 | Preservative Type | HCI | Neat | HNO3 | HNO3 | H ₂ SO ₄ | Neat | HCL | | | Ž | | 10 | |
| | Time: | | Project Name: San Juan River | 4-5- | Project #: Semi-Annual Event | HEAL PO# 4500081399 | Jer: | . McCartney | gjmccartney@marathonpetroleum.com | Sampler: Tracy Payne | ■ Yes | perature: | Pres(| _ | Z | ェ | エ | H | Z | 工 | | | 3 | | COUNTRY | |
| | L pur | ard | ame: | • | Sei | #0 | Project Manager: | | tney | Tra | | emp | # # T | A-5 | | | _ = | | | JA-3 | | ١. | 7 | į. | (| |
| | -Arou | X Standard | ct N | | ct #: | IL P | ct M | gor | ccar | oler: | ë. | ole T | Container Type and # | 00 | 250 ml amber-1 | 250 ml plastic-1 | 125 ml plastic-1 | 125 ml plastic-1 | 500 ml plastic-1 | 40 MC VOA-3 | | yd bey | Mest | ed by | Q | |
| | Turn-Around | ×S | Proje | Date: | Proje | HE/ | Proje | Gregory J | gjm | Sam | On Ice: | Sample Tem | Cor | 40ml VOA-5 | 25 am | 25 pla | 12 pla | 12 pla | 50 pla | 와 | | Received by: | () | Received by: | 14 | |
| _ | | | | | | | | | | | | | 0 | | | | | | | | | ┪ | | | | |
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| | Chain-of-Custody Record | Western Refining Southwest, Inc. | Bloomfield Terminal | 50 CR 4990 | Bloomfield, NM 87413 | 419-421-2338 | | | | | EXCE | | Matrix | H_2O | H ₂ 0 | H ₂ 0 | H ₂ 0 | H ₂ 0 | H_2O | H2O | | Relinguished hv. | X | Relinquished by: | -5 | 1 |
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| | lai | Wes | Bloc | Mailing Address: | | | email or Fax#: | QA/QC Package: | □ Standard | 1121 | EDD (Type) | | Time | 1250 | | _ | | | \rightarrow | 1 | | Time. | 1550 | Time: | 518] | |
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| | | Client: | | Mail | | Pho | ema | QAX | | | × | | Date | 1/2/ | - | | | | \rightarrow | 1/2/ | | Date | 10 | Date: | 4/5/19 | • |
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TABLE 2

Analytical Methods and Target Analytes Facility-Wide Groundwater Monitoring Plan - June 2018 Western Refining Southwest, Inc. - Bloomfield Refinery

| VOCs (EPA Method 8260B) (1) |
|---|
| - Target List |
| Benzene |
| Toluene |
| Ethylbenzene |
| Xylenes |
| Methyl tert butyl ether (MTBE) |
| SVOCs - (EPA Method 8270) |
| - Method List |
| TPH-GRO (EPA Method 8015B) |
| - Gasoline Range Organics |
| TPH-DRO (EPA Method 8015B) |
| - Diesel Range Organics |
| - Motor Oil Range Organics |
| Total Carbon Dioxide (Laboratory Calculated) |
| - Dissolved CO2 |
| Specific Conductivity (EPA Method 120.1 or field measurement) |
| - Specific conductance |
| TDS (EPA Method 160.1 or field measurement) |
| - Total dissolved solids |
| General Chemistry - Anions (EPA Method 300.0) |
| Fluoride |
| Chloride |
| Bromide |
| Nitrogen, Nitrite (as N) |
| Nitrogen, Nitrate (as N) |
| Phosphorous, Orthophosphate (As P) |
| Sulfate |
| General Chemistry - Alkalinity (EPA Method 310.1) |
| Alkalinity, Total |
| Carbonate |

| Total Recoverable Metals (E. | PA Method 6010B/7470) |
|----------------------------------|--------------------------------|
| - Target List (not applicable to | River Terrace Sampling Events) |
| Arsenic | Lead |
| Barium | Mercury |
| Cadmium | Selenium |

Cadmium Selenium Chromium Silver

- Target List (for River Terrace Sampling Events Only)

Lead

Mercury (DW-1 ONLY)

Dissolved Metals (EPA Method 6010B / 7470)

- Target List (for Refinery Complex, Outfalls, and River)

Arsenic Manganese Barium Mercury Cadmium Potassium Calcium Selenium Chromium Silver Copper Sodium Iron Uranium Lead Zinc

TPH = total petroleum hydrocarbons

Magnesium

GRO = gasoline range organics

VOCs = volatile organic compounds

DRO = diesel range organics

TDS = total dissolved solids

NOTES:

Bicarbonate

- (1) VOCs Target List for River Terrace samples are analyzed by EPA Method 8021B per NMED's letter Approval with Direction dated June 16, 2009.
- (2) Target List for San Juan River Terrace Monitoring Wells and Piezomenter Wells only, per the River Terrace Bioventing System Monitoring Plan.



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

September 10, 2019

Gregory J. McCartney Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4135 FAX (505) 632-3911

RE: San Juan River Bluff OrderNo.: 1908972

Dear Gregory J. McCartney:

Hall Environmental Analysis Laboratory received 7 sample(s) on 8/17/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1908972

Date Reported: 9/10/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: East Outfall #2

Project: San Juan River Bluff
 Collection Date: 8/15/2019 3:15:00 PM

 Lab ID: 1908972-001
 Matrix: AQUEOUS
 Received Date: 8/17/2019 8:40:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|-------------------------------------|---------|---------|------|---------|----|-----------------------|--------|
| CARBON DIOXIDE | | | | | | Analyst: | JRR |
| Total Carbon Dioxide | 300 | 1.0 | Н | mg CO2/ | 1 | 8/19/2019 8:55:02 PM | R62234 |
| EPA METHOD 300.0: ANIONS | | | | | | Analyst: | MRA |
| Fluoride | 0.48 | 0.50 | J | mg/L | 5 | 9/4/2019 4:55:34 PM | R62635 |
| Chloride | 12 | 2.5 | | mg/L | 5 | 9/4/2019 4:55:34 PM | R62635 |
| Bromide | ND | 0.50 | | mg/L | 5 | 9/4/2019 4:55:34 PM | R62635 |
| Phosphorus, Orthophosphate (As P) | ND | 2.5 | Н | mg/L | 5 | 9/4/2019 4:55:34 PM | R62635 |
| Sulfate | 220 | 2.5 | | mg/L | 5 | 9/4/2019 4:55:34 PM | R62635 |
| Nitrate+Nitrite as N | 1.5 | 1.0 | | mg/L | 5 | 9/5/2019 1:01:46 PM | R62704 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | Analyst: | JRR |
| Conductivity | 1000 | 5.0 | | µmhos/c | 1 | 8/19/2019 8:55:02 PM | R62234 |
| SM2320B: ALKALINITY | | | | | | Analyst: | JRR |
| Bicarbonate (As CaCO3) | 333.2 | 20.00 | | mg/L Ca | 1 | 8/19/2019 8:55:02 PM | R62234 |
| Carbonate (As CaCO3) | ND | 2.000 | | mg/L Ca | 1 | 8/19/2019 8:55:02 PM | R62234 |
| Total Alkalinity (as CaCO3) | 333.2 | 20.00 | | mg/L Ca | 1 | 8/19/2019 8:55:02 PM | R62234 |
| SM2540C MOD: TOTAL DISSOLVED SOLIDS | | | | | | Analyst: | JMT |
| Total Dissolved Solids | 685 | 20.0 | * | mg/L | 1 | 8/21/2019 1:51:00 PM | 46914 |
| EPA METHOD 7470: MERCURY | | | | | | Analyst: | pmf |
| Mercury | ND | 0.00020 | | mg/L | 1 | 8/20/2019 10:31:06 AM | 46896 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | | Analyst: | bcv |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/22/2019 12:00:58 PM | A62357 |
| Barium | 0.063 | 0.020 | | mg/L | 1 | 8/20/2019 10:32:07 AM | A62272 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/20/2019 10:32:07 AM | A62272 |
| Calcium | 110 | 5.0 | | mg/L | 5 | 8/22/2019 12:07:07 PM | A62357 |
| Chromium | ND | 0.0060 | | mg/L | 1 | 8/20/2019 10:32:07 AM | A62272 |
| Copper | ND | 0.0060 | | mg/L | 1 | 8/20/2019 10:32:07 AM | A62272 |
| Iron | 0.0056 | 0.020 | J | mg/L | 1 | 8/20/2019 10:32:07 AM | A62272 |
| Lead | 0.0075 | 0.0050 | | mg/L | 1 | 8/20/2019 10:32:07 AM | A62272 |
| Magnesium | 25 | 1.0 | | mg/L | 1 | 8/20/2019 10:32:07 AM | A62272 |
| Manganese | 0.00074 | 0.0020 | J | mg/L | 1 | 8/20/2019 10:32:07 AM | A62272 |
| Potassium | 1.7 | 1.0 | | mg/L | 1 | 8/20/2019 10:32:07 AM | A62272 |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/20/2019 10:32:07 AM | A62272 |
| Silver | 0.0021 | 0.0050 | J | mg/L | 1 | 8/20/2019 10:32:07 AM | A62272 |
| Sodium | 81 | 1.0 | | mg/L | 1 | 8/20/2019 10:32:07 AM | A62272 |
| Uranium | ND | 0.10 | | mg/L | 1 | 8/20/2019 10:32:07 AM | A62272 |
| Zinc | 0.020 | 0.020 | J | mg/L | 1 | 8/20/2019 10:32:07 AM | A62272 |

EPA 6010B: TOTAL RECOVERABLE METALS Analyst: bcv

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 27

Lab Order **1908972**

Date Reported: 9/10/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: East Outfall #2

Project: San Juan River Bluff
 Collection Date: 8/15/2019 3:15:00 PM

 Lab ID: 1908972-001
 Matrix: AQUEOUS
 Received Date: 8/17/2019 8:40:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|--------|------|-------|----|-----------------------|--------|
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | | Analyst: | bcv |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/22/2019 2:02:02 PM | 46876 |
| Barium | 0.064 | 0.020 | | mg/L | 1 | 8/22/2019 2:02:02 PM | 46876 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/22/2019 2:02:02 PM | 46876 |
| Chromium | ND | 0.0060 | | mg/L | 1 | 8/22/2019 2:02:02 PM | 46876 |
| Lead | ND | 0.0050 | | mg/L | 1 | 8/23/2019 9:37:17 AM | 46876 |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/22/2019 2:02:02 PM | 46876 |
| Silver | 0.0027 | 0.0050 | J | mg/L | 1 | 8/22/2019 2:02:02 PM | 46876 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | | Analyst | ССМ |
| Benzene | ND | 1.0 | | μg/L | 1 | 8/22/2019 11:52:00 AM | SL_W62 |
| Toluene | ND | 1.0 | | μg/L | 1 | 8/22/2019 11:52:00 AM | SL_W62 |
| Ethylbenzene | ND | 1.0 | | μg/L | 1 | 8/22/2019 11:52:00 AM | SL_W62 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | μg/L | 1 | 8/22/2019 11:52:00 AM | SL_W62 |
| Xylenes, Total | ND | 1.5 | | μg/L | 1 | 8/22/2019 11:52:00 AM | SL_W62 |
| Surr: 1,2-Dichloroethane-d4 | 97.0 | 70-130 | | %Rec | 1 | 8/22/2019 11:52:00 AM | SL_W62 |
| Surr: 4-Bromofluorobenzene | 98.8 | 70-130 | | %Rec | 1 | 8/22/2019 11:52:00 AM | SL_W62 |
| Surr: Dibromofluoromethane | 95.9 | 70-130 | | %Rec | 1 | 8/22/2019 11:52:00 AM | SL_W62 |
| Surr: Toluene-d8 | 98.7 | 70-130 | | %Rec | 1 | 8/22/2019 11:52:00 AM | SL_W62 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908972

Date Reported: 9/10/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: East Outfall #3

Project: San Juan River Bluff
 Collection Date: 8/15/2019 2:20:00 PM

 Lab ID: 1908972-002
 Matrix: AQUEOUS
 Received Date: 8/17/2019 8:40:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|-------------------------------------|--------|---------|------|---------|----|-----------------------|--------|
| CARBON DIOXIDE | | | | | | Analyst | : JRR |
| Total Carbon Dioxide | 290 | 1.0 | Н | mg CO2/ | 1 | 8/19/2019 9:09:52 PM | R62234 |
| EPA METHOD 300.0: ANIONS | | | | | | Analyst | : MRA |
| Fluoride | 0.35 | 0.10 | | mg/L | 1 | 9/4/2019 5:21:19 PM | R62635 |
| Chloride | 14 | 0.50 | | mg/L | 1 | 9/4/2019 5:21:19 PM | R62635 |
| Bromide | 0.12 | 0.10 | | mg/L | 1 | 9/4/2019 5:21:19 PM | R62635 |
| Phosphorus, Orthophosphate (As P) | ND | 0.50 | Н | mg/L | 1 | 9/4/2019 5:21:19 PM | R62635 |
| Sulfate | 190 | 10 | | mg/L | 20 | 9/4/2019 5:34:10 PM | R62635 |
| Nitrate+Nitrite as N | 1.6 | 1.0 | | mg/L | 5 | 9/5/2019 1:14:38 PM | R62704 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | Analyst | : JRR |
| Conductivity | 1000 | 5.0 | | µmhos/c | 1 | 8/19/2019 9:09:52 PM | R62234 |
| SM2320B: ALKALINITY | | | | | | Analyst | : JRR |
| Bicarbonate (As CaCO3) | 324.4 | 20.00 | | mg/L Ca | 1 | 8/19/2019 9:09:52 PM | R62234 |
| Carbonate (As CaCO3) | ND | 2.000 | | mg/L Ca | 1 | 8/19/2019 9:09:52 PM | R62234 |
| Total Alkalinity (as CaCO3) | 324.4 | 20.00 | | mg/L Ca | 1 | 8/19/2019 9:09:52 PM | R62234 |
| SM2540C MOD: TOTAL DISSOLVED SOLIDS | | | | | | Analyst | : JMT |
| Total Dissolved Solids | 673 | 20.0 | * | mg/L | 1 | 8/21/2019 1:51:00 PM | 46914 |
| EPA METHOD 7470: MERCURY | | | | | | Analyst | pmf |
| Mercury | ND | 0.00020 | | mg/L | 1 | 8/20/2019 10:37:52 AM | 46896 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | | Analyst | bcv |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/22/2019 12:09:23 PM | A62357 |
| Barium | 0.049 | 0.020 | | mg/L | 1 | 8/20/2019 10:44:37 AM | A62272 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/20/2019 10:44:37 AM | A62272 |
| Calcium | 110 | 5.0 | | mg/L | 5 | 8/22/2019 12:18:25 PM | A62357 |
| Chromium | ND | 0.0060 | | mg/L | 1 | 8/20/2019 10:44:37 AM | A62272 |
| Copper | 0.0030 | 0.0060 | J | mg/L | 1 | 8/20/2019 10:44:37 AM | A62272 |
| Iron | ND | 0.020 | | mg/L | 1 | 8/20/2019 10:44:37 AM | A62272 |
| Lead | 0.0066 | 0.0050 | | mg/L | 1 | 8/20/2019 10:44:37 AM | |
| Magnesium | 25 | 1.0 | | mg/L | 1 | 8/20/2019 10:44:37 AM | |
| Manganese | ND | 0.0020 | | mg/L | 1 | 8/20/2019 10:44:37 AM | - |
| Potassium | 2.0 | 1.0 | | mg/L | 1 | 8/20/2019 10:44:37 AM | |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/20/2019 10:44:37 AM | - |
| Silver | 0.0023 | 0.0050 | J | mg/L | 1 | 8/20/2019 10:44:37 AM | - |
| Sodium | 80 | 1.0 | | mg/L | 1 | 8/20/2019 10:44:37 AM | - |
| Uranium | ND | 0.10 | | mg/L | 1 | 8/20/2019 10:44:37 AM | |
| Zinc | 0.016 | 0.020 | J | mg/L | 1 | 8/20/2019 10:44:37 AM | A62272 |

EPA 6010B: TOTAL RECOVERABLE METALS

Analyst: **bcv**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1908972**

Date Reported: 9/10/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: East Outfall #3

Project: San Juan River Bluff
 Collection Date: 8/15/2019 2:20:00 PM

 Lab ID: 1908972-002
 Matrix: AQUEOUS
 Received Date: 8/17/2019 8:40:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|--------|------|-------|----|----------------------|--------|
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | | Analyst | : bcv |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/22/2019 2:10:05 PM | 46876 |
| Barium | 0.048 | 0.020 | | mg/L | 1 | 8/22/2019 2:10:05 PM | 46876 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/22/2019 2:10:05 PM | 46876 |
| Chromium | ND | 0.0060 | | mg/L | 1 | 8/22/2019 2:10:05 PM | 46876 |
| Lead | ND | 0.0050 | | mg/L | 1 | 8/23/2019 9:46:37 AM | 46876 |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/22/2019 2:10:05 PM | 46876 |
| Silver | 0.0023 | 0.0050 | J | mg/L | 1 | 8/22/2019 2:10:05 PM | 46876 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | | Analyst | CCM |
| Benzene | ND | 1.0 | | μg/L | 1 | 8/22/2019 1:04:00 PM | SL_W62 |
| Toluene | ND | 1.0 | | μg/L | 1 | 8/22/2019 1:04:00 PM | SL_W62 |
| Ethylbenzene | ND | 1.0 | | μg/L | 1 | 8/22/2019 1:04:00 PM | SL_W62 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | μg/L | 1 | 8/22/2019 1:04:00 PM | SL_W62 |
| Xylenes, Total | ND | 1.5 | | μg/L | 1 | 8/22/2019 1:04:00 PM | SL_W62 |
| Surr: 1,2-Dichloroethane-d4 | 99.9 | 70-130 | | %Rec | 1 | 8/22/2019 1:04:00 PM | SL_W62 |
| Surr: 4-Bromofluorobenzene | 96.1 | 70-130 | | %Rec | 1 | 8/22/2019 1:04:00 PM | SL_W62 |
| Surr: Dibromofluoromethane | 97.2 | 70-130 | | %Rec | 1 | 8/22/2019 1:04:00 PM | SL_W62 |
| Surr: Toluene-d8 | 97.7 | 70-130 | | %Rec | 1 | 8/22/2019 1:04:00 PM | SL_W62 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1908972**

Date Reported: 9/10/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Upstream

Project: San Juan River Bluff
 Collection Date: 8/16/2019 8:25:00 AM

 Lab ID: 1908972-003
 Matrix: AQUEOUS
 Received Date: 8/17/2019 8:40:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|-------------------------------------|--------|----------|------|---------|------|-----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | Analyst: | BRM |
| Diesel Range Organics (DRO) | ND | 0.40 | | mg/L | 1 | 8/21/2019 3:51:29 PM | 46918 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | mg/L | 1 | 8/21/2019 3:51:29 PM | 46918 |
| Surr: DNOP | 86.3 | 52.7-168 | | %Rec | 1 | 8/21/2019 3:51:29 PM | 46918 |
| CARBON DIOXIDE | | | | | | Analyst: | JRR |
| Total Carbon Dioxide | 79 | 1.0 | Н | mg CO2 | 2/ 1 | 8/19/2019 9:24:28 PM | R62234 |
| EPA METHOD 300.0: ANIONS | | | | | | Analyst: | MRA |
| Fluoride | 0.21 | 0.50 | J | mg/L | 5 | 9/4/2019 5:47:02 PM | R62635 |
| Chloride | 3.6 | 2.5 | | mg/L | 5 | 9/4/2019 5:47:02 PM | R62635 |
| Bromide | ND | 0.50 | | mg/L | 5 | 9/4/2019 5:47:02 PM | R62635 |
| Phosphorus, Orthophosphate (As P) | ND | 2.5 | Н | mg/L | 5 | 9/4/2019 5:47:02 PM | R62635 |
| Sulfate | 49 | 2.5 | | mg/L | 5 | 9/4/2019 5:47:02 PM | R62635 |
| Nitrate+Nitrite as N | 0.13 | 1.0 | J | mg/L | 5 | 9/5/2019 1:27:30 PM | R62704 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | Analyst: | JRR |
| Conductivity | 310 | 5.0 | | µmhos/d | 1 | 8/19/2019 9:24:28 PM | R62234 |
| SM2320B: ALKALINITY | | | | | | Analyst: | JRR |
| Bicarbonate (As CaCO3) | 87.56 | 20.00 | | mg/L Ca | 1 | 8/19/2019 9:24:28 PM | R62234 |
| Carbonate (As CaCO3) | ND | 2.000 | | mg/L Ca | 1 | 8/19/2019 9:24:28 PM | R62234 |
| Total Alkalinity (as CaCO3) | 87.56 | 20.00 | | mg/L Ca | 1 | 8/19/2019 9:24:28 PM | R62234 |
| SM2540C MOD: TOTAL DISSOLVED SOLIDS | | | | | | Analyst: | JMT |
| Total Dissolved Solids | 245 | 100 | D | mg/L | 1 | 8/21/2019 1:51:00 PM | 46914 |
| EPA METHOD 7470: MERCURY | | | | | | Analyst: | pmf |
| Mercury | ND | 0.00020 | | mg/L | 1 | 8/20/2019 10:40:04 AM | 46896 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | | Analyst: | bcv |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/22/2019 12:20:35 PM | A62357 |
| Barium | 0.078 | 0.020 | | mg/L | 1 | 8/20/2019 10:46:47 AM | A62272 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/20/2019 10:46:47 AM | A62272 |
| Calcium | 32 | 1.0 | | mg/L | 1 | 8/22/2019 12:20:35 PM | A62357 |
| Chromium | ND | 0.0060 | | mg/L | 1 | 8/20/2019 10:46:47 AM | A62272 |
| Copper | 0.0033 | 0.0060 | J | mg/L | 1 | 8/20/2019 10:46:47 AM | A62272 |
| Iron | 0.0089 | 0.020 | J | mg/L | 1 | 8/20/2019 10:46:47 AM | A62272 |
| Lead | 0.0063 | 0.0050 | | mg/L | 1 | 8/20/2019 10:46:47 AM | A62272 |
| Magnesium | 6.5 | 1.0 | | mg/L | 1 | 8/20/2019 10:46:47 AM | A62272 |
| Manganese | 0.0057 | 0.0020 | | mg/L | 1 | 8/20/2019 10:46:47 AM | |
| Potassium | 2.1 | 1.0 | | mg/L | 1 | 8/20/2019 10:46:47 AM | A62272 |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/20/2019 10:46:47 AM | |
| Silver | 0.0013 | 0.0050 | J | mg/L | 1 | 8/20/2019 10:46:47 AM | A62272 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1908972**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/10/2019

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Upstream

Project: San Juan River Bluff
 Collection Date: 8/16/2019 8:25:00 AM

 Lab ID: 1908972-003
 Matrix: AQUEOUS
 Received Date: 8/17/2019 8:40:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---------------------------------------|---------|----------|------|-------|----|-----------------------|--------|
| EPA METHOD 6010B: DISSOLVED METALS | | | | | | Analyst: | bcv |
| Sodium | 17 | 1.0 | | mg/L | 1 | 8/20/2019 10:46:47 AM | A62272 |
| Uranium | ND | 0.10 | | mg/L | 1 | 8/20/2019 10:46:47 AM | A62272 |
| Zinc | 0.021 | 0.020 | | mg/L | 1 | 8/20/2019 10:46:47 AM | A62272 |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | | Analyst | bcv |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/22/2019 2:12:15 PM | 46876 |
| Barium | 0.10 | 0.020 | | mg/L | 1 | 8/22/2019 2:12:15 PM | 46876 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/22/2019 2:12:15 PM | 46876 |
| Chromium | 0.0026 | 0.0060 | J | mg/L | 1 | 8/22/2019 2:12:15 PM | 46876 |
| Lead | ND | 0.0050 | | mg/L | 1 | 8/23/2019 9:48:09 AM | 46876 |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/22/2019 2:12:15 PM | 46876 |
| Silver | 0.00084 | 0.0050 | J | mg/L | 1 | 8/22/2019 2:12:15 PM | 46876 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | Analyst | NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | | mg/L | 1 | 8/26/2019 12:47:59 PM | A62420 |
| Surr: BFB | 90.1 | 65.8-143 | | %Rec | 1 | 8/26/2019 12:47:59 PM | A62420 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | | Analyst | CCM |
| Benzene | ND | 1.0 | | μg/L | 1 | 8/22/2019 1:29:00 PM | SL_W62 |
| Toluene | ND | 1.0 | | μg/L | 1 | 8/22/2019 1:29:00 PM | SL_W62 |
| Ethylbenzene | ND | 1.0 | | μg/L | 1 | 8/22/2019 1:29:00 PM | SL_W62 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | μg/L | 1 | 8/22/2019 1:29:00 PM | SL_W62 |
| Xylenes, Total | ND | 1.5 | | μg/L | 1 | 8/22/2019 1:29:00 PM | SL_W62 |
| Surr: 1,2-Dichloroethane-d4 | 97.3 | 70-130 | | %Rec | 1 | 8/22/2019 1:29:00 PM | SL_W62 |
| Surr: 4-Bromofluorobenzene | 98.6 | 70-130 | | %Rec | 1 | 8/22/2019 1:29:00 PM | SL_W62 |
| Surr: Dibromofluoromethane | 96.8 | 70-130 | | %Rec | 1 | 8/22/2019 1:29:00 PM | SL_W62 |
| Surr: Toluene-d8 | 97.8 | 70-130 | | %Rec | 1 | 8/22/2019 1:29:00 PM | SL_W62 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1908972**

Date Reported: 9/10/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: North of 45

Project: San Juan River Bluff
 Collection Date: 8/16/2019 9:30:00 AM

 Lab ID: 1908972-004
 Matrix: AQUEOUS
 Received Date: 8/17/2019 8:40:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|-------------------------------------|--------|----------|------|---------|-----|-----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | Analyst | BRM |
| Diesel Range Organics (DRO) | ND | 0.40 | | mg/L | 1 | 8/21/2019 5:04:34 PM | 46918 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | mg/L | 1 | 8/21/2019 5:04:34 PM | 46918 |
| Surr: DNOP | 96.0 | 52.7-168 | | %Rec | 1 | 8/21/2019 5:04:34 PM | 46918 |
| CARBON DIOXIDE | | | | | | Analyst | : JRR |
| Total Carbon Dioxide | 80 | 1.0 | Н | mg CO2 | / 1 | 8/19/2019 9:33:09 PM | R62234 |
| EPA METHOD 300.0: ANIONS | | | | | | Analyst | MRA |
| Fluoride | 0.19 | 0.10 | | mg/L | 1 | 9/4/2019 6:12:46 PM | R62635 |
| Chloride | 3.6 | 0.50 | | mg/L | 1 | 9/4/2019 6:12:46 PM | R62635 |
| Bromide | ND | 0.10 | | mg/L | 1 | 9/4/2019 6:12:46 PM | R62635 |
| Phosphorus, Orthophosphate (As P) | ND | 0.50 | Н | mg/L | 1 | 9/4/2019 6:12:46 PM | R62635 |
| Sulfate | 50 | 10 | | mg/L | 20 | 9/4/2019 6:25:38 PM | R62635 |
| Nitrate+Nitrite as N | ND | 1.0 | | mg/L | 5 | 9/5/2019 1:40:22 PM | R62704 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | Analyst | JRR |
| Conductivity | 310 | 5.0 | | µmhos/c | : 1 | 8/19/2019 9:33:09 PM | R62234 |
| SM2320B: ALKALINITY | | | | | | Analyst | : JRR |
| Bicarbonate (As CaCO3) | 88.72 | 20.00 | | mg/L Ca | 1 | 8/19/2019 9:33:09 PM | R62234 |
| Carbonate (As CaCO3) | ND | 2.000 | | mg/L Ca | 1 | 8/19/2019 9:33:09 PM | R62234 |
| Total Alkalinity (as CaCO3) | 88.72 | 20.00 | | mg/L Ca | 1 | 8/19/2019 9:33:09 PM | R62234 |
| SM2540C MOD: TOTAL DISSOLVED SOLIDS | | | | | | Analyst | : JMT |
| Total Dissolved Solids | 187 | 20.0 | | mg/L | 1 | 8/21/2019 1:51:00 PM | 46914 |
| EPA METHOD 7470: MERCURY | | | | | | Analyst | pmf |
| Mercury | ND | 0.00020 | | mg/L | 1 | 8/20/2019 10:42:16 AM | 46896 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | | Analyst | bcv |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/22/2019 12:22:43 PM | A62357 |
| Barium | 0.079 | 0.020 | | mg/L | 1 | 8/20/2019 10:48:57 AM | A62272 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/20/2019 10:48:57 AM | A62272 |
| Calcium | 33 | 1.0 | | mg/L | 1 | 8/22/2019 12:22:43 PM | A62357 |
| Chromium | ND | 0.0060 | | mg/L | 1 | 8/20/2019 10:48:57 AM | A62272 |
| Copper | 0.011 | 0.0060 | | mg/L | 1 | 8/20/2019 10:48:57 AM | A62272 |
| Iron | 0.0096 | 0.020 | J | mg/L | 1 | 8/20/2019 10:48:57 AM | A62272 |
| Lead | ND | 0.0050 | | mg/L | 1 | 8/20/2019 10:48:57 AM | A62272 |
| Magnesium | 6.5 | 1.0 | | mg/L | 1 | 8/20/2019 10:48:57 AM | A62272 |
| Manganese | 0.0064 | 0.0020 | | mg/L | 1 | 8/20/2019 10:48:57 AM | A62272 |
| Potassium | 2.2 | 1.0 | | mg/L | 1 | 8/20/2019 10:48:57 AM | A62272 |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/20/2019 10:48:57 AM | A62272 |
| Silver | ND | 0.0050 | | mg/L | 1 | 8/20/2019 10:48:57 AM | A62272 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1908972**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/10/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: North of 45

Project: San Juan River Bluff
 Collection Date: 8/16/2019 9:30:00 AM

 Lab ID: 1908972-004
 Matrix: AQUEOUS
 Received Date: 8/17/2019 8:40:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---------------------------------------|---------|----------|------|-------|----|-----------------------|--------|
| EPA METHOD 6010B: DISSOLVED METALS | | | | | | Analyst: | bcv |
| Sodium | 17 | 1.0 | | mg/L | 1 | 8/20/2019 10:48:57 AM | A62272 |
| Uranium | ND | 0.10 | | mg/L | 1 | 8/20/2019 10:48:57 AM | A62272 |
| Zinc | 0.018 | 0.020 | J | mg/L | 1 | 8/20/2019 10:48:57 AM | A62272 |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | | Analyst | bcv |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/22/2019 2:14:15 PM | 46876 |
| Barium | 0.12 | 0.020 | | mg/L | 1 | 8/22/2019 2:14:15 PM | 46876 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/22/2019 2:14:15 PM | 46876 |
| Chromium | 0.0015 | 0.0060 | J | mg/L | 1 | 8/22/2019 2:14:15 PM | 46876 |
| Lead | 0.0043 | 0.0050 | J | mg/L | 1 | 8/23/2019 9:49:41 AM | 46876 |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/22/2019 2:14:15 PM | 46876 |
| Silver | 0.00077 | 0.0050 | J | mg/L | 1 | 8/22/2019 2:14:15 PM | 46876 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | Analyst | NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | | mg/L | 1 | 8/26/2019 1:10:59 PM | A62420 |
| Surr: BFB | 95.0 | 65.8-143 | | %Rec | 1 | 8/26/2019 1:10:59 PM | A62420 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | | Analyst | CCM |
| Benzene | ND | 1.0 | | μg/L | 1 | 8/22/2019 1:53:00 PM | SL_W62 |
| Toluene | ND | 1.0 | | μg/L | 1 | 8/22/2019 1:53:00 PM | SL_W62 |
| Ethylbenzene | ND | 1.0 | | μg/L | 1 | 8/22/2019 1:53:00 PM | SL_W62 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | μg/L | 1 | 8/22/2019 1:53:00 PM | SL_W62 |
| Xylenes, Total | ND | 1.5 | | μg/L | 1 | 8/22/2019 1:53:00 PM | SL_W62 |
| Surr: 1,2-Dichloroethane-d4 | 101 | 70-130 | | %Rec | 1 | 8/22/2019 1:53:00 PM | SL_W62 |
| Surr: 4-Bromofluorobenzene | 95.8 | 70-130 | | %Rec | 1 | 8/22/2019 1:53:00 PM | SL_W62 |
| Surr: Dibromofluoromethane | 99.8 | 70-130 | | %Rec | 1 | 8/22/2019 1:53:00 PM | SL_W62 |
| Surr: Toluene-d8 | 97.4 | 70-130 | | %Rec | 1 | 8/22/2019 1:53:00 PM | SL_W62 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908972

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/10/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: North Of 46

Project: San Juan River Bluff
 Collection Date: 8/16/2019 10:30:00 AM

 Lab ID: 1908972-005
 Matrix: AQUEOUS
 Received Date: 8/17/2019 8:40:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|-------------------------------------|--------|----------|------|---------|----|-----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | Analyst | BRM |
| Diesel Range Organics (DRO) | ND | 0.40 | | mg/L | 1 | 8/21/2019 5:29:00 PM | 46918 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | mg/L | 1 | 8/21/2019 5:29:00 PM | 46918 |
| Surr: DNOP | 99.1 | 52.7-168 | | %Rec | 1 | 8/21/2019 5:29:00 PM | 46918 |
| CARBON DIOXIDE | | | | | | Analyst | JRR |
| Total Carbon Dioxide | 80 | 1.0 | Н | mg CO2/ | 1 | 8/19/2019 9:41:19 PM | R62234 |
| EPA METHOD 300.0: ANIONS | | | | | | Analyst | MRA |
| Fluoride | 0.19 | 0.10 | | mg/L | 1 | 9/4/2019 7:04:53 PM | R62635 |
| Chloride | 3.5 | 0.50 | | mg/L | 1 | 9/4/2019 7:04:53 PM | R62635 |
| Bromide | ND | 0.10 | | mg/L | 1 | 9/4/2019 7:04:53 PM | R62635 |
| Phosphorus, Orthophosphate (As P) | ND | 0.50 | Н | mg/L | 1 | 9/4/2019 7:04:53 PM | R62635 |
| Sulfate | 50 | 10 | | mg/L | 20 | 9/4/2019 7:17:14 PM | R62635 |
| Nitrate+Nitrite as N | ND | 1.0 | | mg/L | 5 | 9/5/2019 1:53:15 PM | R62704 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | Analyst | JRR |
| Conductivity | 310 | 5.0 | | µmhos/c | 1 | 8/19/2019 9:41:19 PM | R62234 |
| SM2320B: ALKALINITY | | | | | | Analyst | JRR |
| Bicarbonate (As CaCO3) | 88.92 | 20.00 | | mg/L Ca | 1 | 8/19/2019 9:41:19 PM | R62234 |
| Carbonate (As CaCO3) | ND | 2.000 | | mg/L Ca | 1 | 8/19/2019 9:41:19 PM | R62234 |
| Total Alkalinity (as CaCO3) | 88.92 | 20.00 | | mg/L Ca | 1 | 8/19/2019 9:41:19 PM | R62234 |
| SM2540C MOD: TOTAL DISSOLVED SOLIDS | | | | | | Analyst | JMT |
| Total Dissolved Solids | 194 | 20.0 | | mg/L | 1 | 8/21/2019 1:51:00 PM | 46914 |
| EPA METHOD 7470: MERCURY | | | | | | Analyst | pmf |
| Mercury | ND | 0.00020 | | mg/L | 1 | 8/20/2019 10:44:28 AM | 46896 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | | Analyst | bcv |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/22/2019 12:24:51 PM | A62357 |
| Barium | 0.081 | 0.020 | | mg/L | 1 | 8/20/2019 10:51:05 AM | A62272 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/20/2019 10:51:05 AM | A62272 |
| Calcium | 34 | 1.0 | | mg/L | 1 | 8/22/2019 12:24:51 PM | A62357 |
| Chromium | ND | 0.0060 | | mg/L | 1 | 8/20/2019 10:51:05 AM | A62272 |
| Copper | 0.0062 | 0.0060 | | mg/L | 1 | 8/20/2019 10:51:05 AM | A62272 |
| Iron | 0.010 | 0.020 | J | mg/L | 1 | 8/20/2019 10:51:05 AM | A62272 |
| Lead | ND | 0.0050 | | mg/L | 1 | 8/20/2019 10:51:05 AM | A62272 |
| Magnesium | 6.6 | 1.0 | | mg/L | 1 | 8/20/2019 10:51:05 AM | A62272 |
| Manganese | 0.0066 | 0.0020 | | mg/L | 1 | 8/20/2019 10:51:05 AM | A62272 |
| Potassium | 2.3 | 1.0 | | mg/L | 1 | 8/20/2019 10:51:05 AM | |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/20/2019 10:51:05 AM | - |
| Silver | 0.0013 | 0.0050 | J | mg/L | 1 | 8/20/2019 10:51:05 AM | A62272 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908972

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/10/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: North Of 46

Project: San Juan River Bluff
 Collection Date: 8/16/2019 10:30:00 AM

 Lab ID: 1908972-005
 Matrix: AQUEOUS
 Received Date: 8/17/2019 8:40:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------|-------|----|-----------------------|--------|
| EPA METHOD 6010B: DISSOLVED METALS | | | | | | Analyst: | bcv |
| Sodium | 18 | 1.0 | | mg/L | 1 | 8/20/2019 10:51:05 AM | A62272 |
| Uranium | ND | 0.10 | | mg/L | 1 | 8/20/2019 10:51:05 AM | A62272 |
| Zinc | 0.034 | 0.020 | | mg/L | 1 | 8/20/2019 10:51:05 AM | A62272 |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | | Analyst | bcv |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/22/2019 2:16:15 PM | 46876 |
| Barium | 0.15 | 0.020 | | mg/L | 1 | 8/22/2019 2:16:15 PM | 46876 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/22/2019 2:16:15 PM | 46876 |
| Chromium | 0.0046 | 0.0060 | J | mg/L | 1 | 8/22/2019 2:16:15 PM | 46876 |
| Lead | ND | 0.0050 | | mg/L | 1 | 8/23/2019 9:51:16 AM | 46876 |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/22/2019 2:16:15 PM | 46876 |
| Silver | ND | 0.0050 | | mg/L | 1 | 8/22/2019 2:16:15 PM | 46876 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | Analyst | NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | | mg/L | 1 | 8/26/2019 1:33:58 PM | A62420 |
| Surr: BFB | 96.9 | 65.8-143 | | %Rec | 1 | 8/26/2019 1:33:58 PM | A62420 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | | Analyst: | CCM |
| Benzene | ND | 1.0 | | μg/L | 1 | 8/22/2019 2:17:00 PM | SL_W62 |
| Toluene | ND | 1.0 | | μg/L | 1 | 8/22/2019 2:17:00 PM | SL_W62 |
| Ethylbenzene | ND | 1.0 | | μg/L | 1 | 8/22/2019 2:17:00 PM | SL_W62 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | μg/L | 1 | 8/22/2019 2:17:00 PM | SL_W62 |
| Xylenes, Total | ND | 1.5 | | μg/L | 1 | 8/22/2019 2:17:00 PM | SL_W62 |
| Surr: 1,2-Dichloroethane-d4 | 98.5 | 70-130 | | %Rec | 1 | 8/22/2019 2:17:00 PM | SL_W62 |
| Surr: 4-Bromofluorobenzene | 97.4 | 70-130 | | %Rec | 1 | 8/22/2019 2:17:00 PM | SL_W62 |
| Surr: Dibromofluoromethane | 96.0 | 70-130 | | %Rec | 1 | 8/22/2019 2:17:00 PM | SL_W62 |
| Surr: Toluene-d8 | 97.5 | 70-130 | | %Rec | 1 | 8/22/2019 2:17:00 PM | SL_W62 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1908972**

Date Reported: 9/10/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Down Stream

Project: San Juan River Bluff
 Collection Date: 8/16/2019 11:15:00 AM

 Lab ID: 1908972-006
 Matrix: AQUEOUS
 Received Date: 8/17/2019 8:40:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|-------------------------------------|--------|----------|------|---------|-----|-----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | Analyst: | BRM |
| Diesel Range Organics (DRO) | ND | 0.40 | | mg/L | 1 | 8/21/2019 5:53:22 PM | 46918 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | mg/L | 1 | 8/21/2019 5:53:22 PM | 46918 |
| Surr: DNOP | 91.9 | 52.7-168 | | %Rec | 1 | 8/21/2019 5:53:22 PM | 46918 |
| CARBON DIOXIDE | | | | | | Analyst: | JRR |
| Total Carbon Dioxide | 80 | 1.0 | Н | mg CO2 | / 1 | 8/19/2019 10:05:14 PM | R62234 |
| EPA METHOD 300.0: ANIONS | | | | | | Analyst: | MRA |
| Fluoride | 0.19 | 0.10 | | mg/L | 1 | 9/4/2019 7:30:07 PM | R62635 |
| Chloride | 3.6 | 0.50 | | mg/L | 1 | 9/4/2019 7:30:07 PM | R62635 |
| Bromide | ND | 0.10 | | mg/L | 1 | 9/4/2019 7:30:07 PM | R62635 |
| Phosphorus, Orthophosphate (As P) | ND | 0.50 | Н | mg/L | 1 | 9/4/2019 7:30:07 PM | R62635 |
| Sulfate | 52 | 10 | | mg/L | 20 | 9/4/2019 7:43:00 PM | R62635 |
| Nitrate+Nitrite as N | 0.13 | 1.0 | J | mg/L | 5 | 9/5/2019 2:06:08 PM | R62704 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | Analyst: | JRR |
| Conductivity | 310 | 5.0 | | µmhos/c | 1 | 8/19/2019 10:05:14 PM | R62234 |
| SM2320B: ALKALINITY | | | | | | Analyst: | JRR |
| Bicarbonate (As CaCO3) | 88.80 | 20.00 | | mg/L Ca | 1 | 8/19/2019 10:05:14 PM | R62234 |
| Carbonate (As CaCO3) | ND | 2.000 | | mg/L Ca | 1 | 8/19/2019 10:05:14 PM | R62234 |
| Total Alkalinity (as CaCO3) | 88.80 | 20.00 | | mg/L Ca | 1 | 8/19/2019 10:05:14 PM | R62234 |
| SM2540C MOD: TOTAL DISSOLVED SOLIDS | | | | | | Analyst: | JMT |
| Total Dissolved Solids | 204 | 40.0 | D | mg/L | 1 | 8/21/2019 1:51:00 PM | 46914 |
| EPA METHOD 7470: MERCURY | | | | | | Analyst: | pmf |
| Mercury | ND | 0.00020 | | mg/L | 1 | 8/20/2019 10:51:18 AM | 46896 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | | Analyst: | bcv |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/22/2019 12:26:59 PM | A62357 |
| Barium | 0.080 | 0.020 | | mg/L | 1 | 8/20/2019 10:53:15 AM | A62272 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/20/2019 10:53:15 AM | A62272 |
| Calcium | 33 | 1.0 | | mg/L | 1 | 8/22/2019 12:26:59 PM | A62357 |
| Chromium | ND | 0.0060 | | mg/L | 1 | 8/20/2019 10:53:15 AM | A62272 |
| Copper | 0.0060 | 0.0060 | | mg/L | 1 | 8/20/2019 10:53:15 AM | A62272 |
| Iron | 0.012 | 0.020 | J | mg/L | 1 | 8/20/2019 10:53:15 AM | A62272 |
| Lead | ND | 0.0050 | | mg/L | 1 | 8/20/2019 10:53:15 AM | A62272 |
| Magnesium | 6.5 | 1.0 | | mg/L | 1 | 8/20/2019 10:53:15 AM | A62272 |
| Manganese | 0.0053 | 0.0020 | | mg/L | 1 | 8/20/2019 10:53:15 AM | A62272 |
| Potassium | 2.2 | 1.0 | | mg/L | 1 | 8/20/2019 10:53:15 AM | A62272 |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/20/2019 10:53:15 AM | |
| Silver | ND | 0.0050 | | mg/L | 1 | 8/20/2019 10:53:15 AM | A62272 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1908972**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/10/2019

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Down Stream

Project:San Juan River BluffCollection Date: 8/16/2019 11:15:00 AMLab ID:1908972-006Matrix: AQUEOUSReceived Date: 8/17/2019 8:40:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---------------------------------------|---------|----------|------|-------|----|-----------------------|--------|
| EPA METHOD 6010B: DISSOLVED METALS | | | | | | Analyst: | bcv |
| Sodium | 17 | 1.0 | | mg/L | 1 | 8/20/2019 10:53:15 AM | A62272 |
| Uranium | ND | 0.10 | | mg/L | 1 | 8/20/2019 10:53:15 AM | A62272 |
| Zinc | 0.026 | 0.020 | | mg/L | 1 | 8/20/2019 10:53:15 AM | A62272 |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | | Analyst | bcv |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/22/2019 2:18:08 PM | 46876 |
| Barium | 0.15 | 0.020 | | mg/L | 1 | 8/22/2019 2:18:08 PM | 46876 |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/22/2019 2:18:08 PM | 46876 |
| Chromium | 0.0024 | 0.0060 | J | mg/L | 1 | 8/22/2019 2:18:08 PM | 46876 |
| Lead | ND | 0.0050 | | mg/L | 1 | 8/23/2019 9:52:47 AM | 46876 |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/22/2019 2:18:08 PM | 46876 |
| Silver | 0.00058 | 0.0050 | J | mg/L | 1 | 8/22/2019 2:18:08 PM | 46876 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | Analyst | NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | | mg/L | 1 | 8/26/2019 1:56:57 PM | A62420 |
| Surr: BFB | 96.0 | 65.8-143 | | %Rec | 1 | 8/26/2019 1:56:57 PM | A62420 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | | Analyst: | CCM |
| Benzene | ND | 1.0 | | μg/L | 1 | 8/22/2019 2:41:00 PM | SL_W62 |
| Toluene | ND | 1.0 | | μg/L | 1 | 8/22/2019 2:41:00 PM | SL_W62 |
| Ethylbenzene | ND | 1.0 | | μg/L | 1 | 8/22/2019 2:41:00 PM | SL_W62 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | μg/L | 1 | 8/22/2019 2:41:00 PM | SL_W62 |
| Xylenes, Total | ND | 1.5 | | μg/L | 1 | 8/22/2019 2:41:00 PM | SL_W62 |
| Surr: 1,2-Dichloroethane-d4 | 99.7 | 70-130 | | %Rec | 1 | 8/22/2019 2:41:00 PM | SL_W62 |
| Surr: 4-Bromofluorobenzene | 96.8 | 70-130 | | %Rec | 1 | 8/22/2019 2:41:00 PM | SL_W62 |
| Surr: Dibromofluoromethane | 97.0 | 70-130 | | %Rec | 1 | 8/22/2019 2:41:00 PM | SL_W62 |
| Surr: Toluene-d8 | 97.5 | 70-130 | | %Rec | 1 | 8/22/2019 2:41:00 PM | SL_W62 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908972

Date Reported: 9/10/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Trip Blank

Project: San Juan River Bluff **Collection Date:**

Lab ID: 1908972-007 **Matrix:** AQUEOUS **Received Date:** 8/17/2019 8:40:00 AM

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|--------|------------|----|----------------------|--------|
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | : CCM |
| Benzene | ND | 1.0 | μg/L | 1 | 8/22/2019 3:06:00 PM | SL_W62 |
| Toluene | ND | 1.0 | μg/L | 1 | 8/22/2019 3:06:00 PM | SL_W62 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 8/22/2019 3:06:00 PM | SL_W62 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 8/22/2019 3:06:00 PM | SL_W62 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 8/22/2019 3:06:00 PM | SL_W62 |
| Surr: 1,2-Dichloroethane-d4 | 98.3 | 70-130 | %Rec | 1 | 8/22/2019 3:06:00 PM | SL_W62 |
| Surr: 4-Bromofluorobenzene | 96.5 | 70-130 | %Rec | 1 | 8/22/2019 3:06:00 PM | SL_W62 |
| Surr: Dibromofluoromethane | 96.6 | 70-130 | %Rec | 1 | 8/22/2019 3:06:00 PM | SL_W62 |
| Surr: Toluene-d8 | 97.8 | 70-130 | %Rec | 1 | 8/22/2019 3:06:00 PM | SL_W62 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

SampType: LCS

WO#: **1908972**

10-Sep-19

Client: Western Refining Southwest, Inc.

Project: San Juan River Bluff

Sample ID: LCS

Sample ID: MB SampType: MBLK TestCode: EPA Method 300.0: Anions Client ID: PBW Batch ID: R62635 RunNo: 62635 Prep Date: Analysis Date: 9/4/2019 SeqNo: 2133704 Units: mg/L PQL SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Analyte Result HighLimit Qual Fluoride ND 0.10 Chloride ND 0.50 **Bromide** ND 0.10 Phosphorus, Orthophosphate (As P ND 0.50 Sulfate ND 0.50

Client ID: LCSW Batch ID: R62635 RunNo: 62635 Prep Date: Analysis Date: 9/4/2019 SeqNo: 2133705 Units: mg/L Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 0.5000 106 90 0.53 0.10 0 110 Fluoride Chloride 4.9 0.50 5.000 0 98.0 90 110 0 100 90 2.5 0.10 2.500 110 **Bromide** 0 97.2 Phosphorus, Orthophosphate (As P 4.9 0.50 5.000 90 110 Sulfate 9.9 0.50 10.00 0 98.9 90 110

TestCode: EPA Method 300.0: Anions

Sample ID: MB SampType: mblk TestCode: EPA Method 300.0: Anions Client ID: PBW Batch ID: R62704 RunNo: 62704 Prep Date: Analysis Date: 9/5/2019 SeqNo: 2135350 Units: mg/L Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Nitrate+Nitrite as N ND 0.20

Sample ID: LCS SampType: Ics TestCode: EPA Method 300.0: Anions Client ID: LCSW Batch ID: R62704 RunNo: 62704 SeqNo: 2135351 Prep Date: Analysis Date: 9/5/2019 Units: mg/L Result POI SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte LowLimit Qual Nitrate+Nitrite as N 3.500 99.5 3.5 0.20 90 110

Qualifiers:

* Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908972**

10-Sep-19

Client: Western Refining Southwest, Inc.

Project: San Juan River Bluff

| Sample ID: 1908972-003EMS | SampT | SampType: MS TestCode: EPA Method 8015D: Diesel Range | | | | | | | | |
|---|------------------------------|---|----------------------|-------------|-----------------------|----------------|--------------------------|----------|-------------|------|
| Client ID: Upstream | Batch | ID: 46 9 | 918 | F | RunNo: 62 | 2286 | | | | |
| Prep Date: 8/20/2019 | Analysis D | ate: 8/ | 21/2019 | 9 | SeqNo: 2 | 117568 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 2.4 | 0.40 | 2.500 | 0 | 94.3 | 68.3 | 147 | | | |
| | 0.19 | | 0.2500 | | 76.9 | 52.7 | 168 | | | |
| Surr: DNOP | 0.19 | | 0.2000 | | | | | | | |
| Sample ID: 1908972-003EMS I |) SampT | ype: MS | SD | | tCode: EF | | 8015D: Diese | el Range | | |
| Sample ID: 1908972-003EMSI Client ID: Upstream |) SampT | iD: 46 9 | SD 918 | F | | 2286 | 8015D: Diese Units: mg/L | J | | |
| Sample ID: 1908972-003EMSI Client ID: Upstream Prep Date: 8/20/2019 | SampT Batch | iD: 46 9 | SD 918 21/2019 | F | RunNo: 62 | 2286 | | J | RPDLimit | Qual |
| Sample ID: 1908972-003EMSI Client ID: Upstream | SampT Batch Analysis D | n ID: 46 9 ate: 8/ 3 | SD 918 21/2019 | F | RunNo: 62 SeqNo: 2 | 2286 117569 | Units: mg/L | J | RPDLimit 20 | Qual |

| Sample ID: LCS-46918 | SampT | ype: LC | S | Tes | tCode: El | PA Method | 8015D: Diese | l Range | | |
|-----------------------------|-------------|------------------|-----------|-------------|-----------|-----------|--------------|---------|----------|------|
| Client ID: LCSW | Batch | ID: 469 | 918 | R | tunNo: 6 | 2286 | | | | |
| Prep Date: 8/20/2019 | Analysis Da | ate: 8/ 2 | 21/2019 | S | SeqNo: 2 | 117575 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 2.8 | 0.40 | 2.500 | 0 | 110 | 66.7 | 148 | | | |
| Surr: DNOP | 0.21 | | 0.2500 | | 85.9 | 52.7 | 168 | | | |

| Sample ID: MB-46918 | SampT | уре: МЕ | BLK | Tes | tCode: El | PA Method | I Range | | | |
|--------------------------------|------------|--|-----------|-----------------------|-----------|-----------|-------------|------|----------|------|
| Client ID: PBW | Batch | Batch ID: 46918 RunNo: 62286 | | | | | | | | |
| Prep Date: 8/20/2019 | Analysis D | ate: 8/ | 21/2019 | SeqNo: 2117576 | | | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | ND | 0.40 | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | | | | | | | |
| Surr: DNOP | 0.47 | | 0.5000 | | 94.6 | 52.7 | 168 | | | |

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908972**

10-Sep-19

Client: Western Refining Southwest, Inc.

Project: San Juan River Bluff

Sample ID: RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBW Batch ID: A62420 RunNo: 62420

Prep Date: Analysis Date: 8/26/2019 SeqNo: 2122301 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 0.050

Surr: BFB 20 20.00 98.3 65.8 143

Sample ID: 2.5UG GRO LCS SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSW Batch ID: A62420 RunNo: 62420

23

Prep Date: Analysis Date: 8/26/2019 SeqNo: 2122302 Units: mg/L

20.00

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 0.47 0.050 0.5000 0 93.7 73.6 119

116

65.8

143

Qualifiers:

Surr: BFB

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908972**

10-Sep-19

Client: Western Refining Southwest, Inc.

Project: San Juan River Bluff

| Sample ID: 100ng Ics | SampT | ype: LC | s | Tes | TestCode: EPA Method 8260: Volatiles Short List | | | | | |
|-----------------------------|------------|----------------|-----------|-------------|---|-----------|----------------|------------|----------|----------|
| Client ID: LCSW | Batch | n ID: SL | _W62329 | F | RunNo: 6 | 2329 | | | | |
| Prep Date: | Analysis D | ate: 8/ | 22/2019 | 5 | SeqNo: 2 | 120528 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 19 | 1.0 | 20.00 | 0 | 94.6 | 70 | 130 | | | |
| Toluene | 21 | 1.0 | 20.00 | 0 | 103 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.4 | | 10.00 | | 94.2 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.8 | | 10.00 | | 98.2 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.3 | | 10.00 | | 92.9 | 70 | 130 | | | |
| Surr: Toluene-d8 | 10 | | 10.00 | | 100 | 70 | 130 | | | |
| Sample ID: rb | SampT | ype: ME | BLK | Tes | tCode: El | PA Method | 8260: Volatile | es Short L | ist | <u> </u> |

| Client ID: PBW | Batcl | h ID: SL | _W62329 | F | RunNo: 6 | 2329 | | | | |
|--------------------------------|------------|----------|-----------|-------------|----------|----------|-------------|------|----------|------|
| Prep Date: | Analysis D | Date: 8/ | 22/2019 | \$ | SeqNo: 2 | 120529 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.7 | | 10.00 | | 96.8 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.7 | | 10.00 | | 97.1 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.7 | | 10.00 | | 96.8 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.7 | | 10.00 | | 97.0 | 70 | 130 | | | |

| Sample ID: 1908972-001ams | SampT | ype: MS | 8 | TestCode: EPA Method 8260: Volatiles Short List | | | | | | |
|-----------------------------|------------|----------|-----------|---|----------|----------|-------------|------|----------|------|
| Client ID: East Outfall #2 | Batch | n ID: SL | _W62329 | F | RunNo: 6 | 2329 | | | | |
| Prep Date: | Analysis D | ate: 8/ | 22/2019 | 5 | SeqNo: 2 | 120531 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 19 | 1.0 | 20.00 | 0 | 95.5 | 70 | 130 | | _ | |
| Toluene | 21 | 1.0 | 20.00 | 0 | 103 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.7 | | 10.00 | | 97.1 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.8 | | 10.00 | | 98.1 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.4 | | 10.00 | | 94.0 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.9 | | 10.00 | | 98.6 | 70 | 130 | | | |

| Sample ID: 1908972-001amsc | l SampT | уре: М S | SD | Tes | tCode: El | PA Method | 8260: Volatile | es Short L | ist | |
|----------------------------|----------------|-----------------|-----------|-------------|-----------|-----------|----------------|------------|----------|------|
| Client ID: East Outfall #2 | Batch | ID: SL | _W62329 | F | RunNo: 6 | 2329 | | | | |
| Prep Date: | Analysis D | ate: 8/ | 22/2019 | 8 | SeqNo: 2 | 120532 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 18 | 1.0 | 20.00 | 0 | 91.9 | 70 | 130 | 3.83 | 20 | _ |

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

9.9

9.6

9.8

WO#: 1908972

10-Sep-19

Client: Western Refining Southwest, Inc.

Project: San Juan River Bluff

Surr: 4-Bromofluorobenzene

Surr: Dibromofluoromethane

Surr: Toluene-d8

Sample ID: 1908972-001amsd SampType: MSD TestCode: EPA Method 8260: Volatiles Short List Client ID: East Outfall #2 Batch ID: SL_W62329 RunNo: 62329 SeqNo: 2120532 Prep Date: Analysis Date: 8/22/2019 Units: µg/L Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 0 20 Toluene 20 1.0 20.00 99.0 70 130 3.78 Surr: 1,2-Dichloroethane-d4 9.8 10.00 98.2 70 130 0 0

99.1

95.9

97.9

70

70

70

130

130

130

0

0

0

0

0

0

10.00

10.00

10.00

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908972**

10-Sep-19

Client: Western Refining Southwest, Inc.

Project: San Juan River Bluff

Sample ID: Ics-1 99.8uS eC SampType: Ics TestCode: SM2510B: Specific Conductance

Client ID: LCSW Batch ID: R62234 RunNo: 62234

Prep Date: Analysis Date: 8/19/2019 SeqNo: 2114534 Units: µmhos/cm

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Conductivity 100 5.0 99.80 0 100 85 115

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908972**

10-Sep-19

Client: Western Refining Southwest, Inc.

Project: San Juan River Bluff

Sample ID: MB-46896 SampType: MBLK TestCode: EPA Method 7470: Mercury

Client ID: PBW Batch ID: 46896 RunNo: 62263

Prep Date: 8/19/2019 Analysis Date: 8/20/2019 SeqNo: 2115305 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury ND 0.00020

Sample ID: LCS-46896 SampType: LCS TestCode: EPA Method 7470: Mercury

Client ID: LCSW Batch ID: 46896 RunNo: 62263

Prep Date: 8/19/2019 Analysis Date: 8/20/2019 SeqNo: 2115306 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.0047 0.00020 0.005000 0 95.0 80 120

Sample ID: 1908972-001CMS SampType: MS TestCode: EPA Method 7470: Mercury

Client ID: East Outfall #2 Batch ID: 46896 RunNo: 62263

Prep Date: **8/19/2019** Analysis Date: **8/20/2019** SeqNo: **2115308** Units: **mg/L**

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.0050 0.00020 0.005000 0 100 75 129

Sample ID: 1908972-001CMSD SampType: MSD TestCode: EPA Method 7470: Mercury

Client ID: East Outfall #2 Batch ID: 46896 RunNo: 62263

Prep Date: 8/19/2019 Analysis Date: 8/20/2019 SeqNo: 2115309 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.0050 0.00020 0.005000 0 100 75 125 0 20

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit
S Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: 1908972

10-Sep-19

Client: Western Refining Southwest, Inc.

Project: San Juan River Bluff

Sample ID: MB-A SampType: MBLK TestCode: EPA Method 6010B: Dissolved Metals

Client ID: PBW Batch ID: A62272 RunNo: 62272

SampType: LCS

| Prep Date: | Analysis I | Date: 8/ | 20/2019 | S | SeqNo: 2 | 115454 | Units: mg/L | | | |
|------------|------------|----------|-----------|-------------|----------|----------|-------------|------|----------|------|
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Barium | ND | 0.020 | | | | | | | | |
| Cadmium | ND | 0.0020 | | | | | | | | |
| Chromium | ND | 0.0060 | | | | | | | | |
| Copper | ND | 0.0060 | | | | | | | | |
| Iron | ND | 0.020 | | | | | | | | |
| Lead | ND | 0.0050 | | | | | | | | |
| Magnesium | ND | 1.0 | | | | | | | | |
| Manganese | ND | 0.0020 | | | | | | | | |
| Potassium | ND | 1.0 | | | | | | | | |
| Selenium | ND | 0.050 | | | | | | | | |
| Silver | ND | 0.0050 | | | | | | | | |
| Sodium | ND | 1.0 | | | | | | | | |
| Uranium | ND | 0.10 | | | | | | | | |
| Zinc | ND | 0.020 | | | | | | | | |

TestCode: FPA Method 6010B: Dissolved Metals

| Sample ID. LC3-A | Janip | Type. LC | 3 | 163 | resicode. EFA Method 6010B. Dissolved Metals | | | | | |
|------------------|----------|-----------------|-----------|-------------|--|----------|-------------|------|----------|------|
| Client ID: LCSW | Bato | h ID: A6 | 2272 | F | RunNo: 6 | 2272 | | | | |
| Prep Date: | Analysis | Date: 8/ | 20/2019 | 8 | SeqNo: 2 | 115456 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Barium | 0.50 | 0.020 | 0.5000 | 0 | 101 | 80 | 120 | | | |
| Cadmium | 0.52 | 0.0020 | 0.5000 | 0 | 104 | 80 | 120 | | | |
| Chromium | 0.51 | 0.0060 | 0.5000 | 0 | 102 | 80 | 120 | | | |
| Copper | 0.52 | 0.0060 | 0.5000 | 0 | 104 | 80 | 120 | | | |
| Iron | 0.52 | 0.020 | 0.5000 | 0 | 104 | 80 | 120 | | | |
| Lead | 0.51 | 0.0050 | 0.5000 | 0 | 101 | 80 | 120 | | | |
| Magnesium | 52 | 1.0 | 50.00 | 0 | 104 | 80 | 120 | | | |
| Manganese | 0.50 | 0.0020 | 0.5000 | 0 | 101 | 80 | 120 | | | |
| Potassium | 52 | 1.0 | 50.00 | 0 | 103 | 80 | 120 | | | |
| Selenium | 0.48 | 0.050 | 0.5000 | 0 | 96.6 | 80 | 120 | | | |
| Silver | 0.096 | 0.0050 | 0.1000 | 0 | 95.8 | 80 | 120 | | | |
| Sodium | 52 | 1.0 | 50.00 | 0 | 105 | 80 | 120 | | | |
| Uranium | 0.47 | 0.10 | 0.5000 | 0 | 94.5 | 80 | 120 | | | |
| Zinc | 0.51 | 0.020 | 0.5000 | 0 | 102 | 80 | 120 | | | |

Sample ID: 1908972-001DMS TestCode: EPA Method 6010B: Dissolved Metals SampType: MS

Batch ID: A62272 Client ID: East Outfall #2 RunNo: 62272

Prep Date: Analysis Date: 8/20/2019 SeqNo: 2115467 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

Qualifiers:

Sample ID: I CS-A

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit Page 21 of 27

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908972**

10-Sep-19

Client: Western Refining Southwest, Inc.

Project: San Juan River Bluff

| Sample ID: 1908972-001DMS | Samp | Туре: МЅ | ; | TestCode: EPA Method 6010B: Dissolved Metals | | | | | | |
|----------------------------|----------|-----------------|-----------|--|----------|----------|-------------|------|----------|------|
| Client ID: East Outfall #2 | Bato | ch ID: A6 | 2272 | F | RunNo: 6 | 2272 | | | | |
| Prep Date: | Analysis | Date: 8/ | 20/2019 | \$ | SeqNo: 2 | 115467 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Barium | 0.57 | 0.020 | 0.5000 | 0.06311 | 102 | 75 | 125 | | | |
| Cadmium | 0.53 | 0.0020 | 0.5000 | 0 | 107 | 75 | 125 | | | |
| Chromium | 0.52 | 0.0060 | 0.5000 | 0 | 104 | 75 | 125 | | | |
| Copper | 0.55 | 0.0060 | 0.5000 | 0 | 110 | 75 | 125 | | | |
| Iron | 0.52 | 0.020 | 0.5000 | 0.005602 | 103 | 75 | 125 | | | |
| Lead | 0.50 | 0.0050 | 0.5000 | 0.007466 | 99.0 | 75 | 125 | | | |
| Magnesium | 78 | 1.0 | 50.00 | 25.28 | 106 | 75 | 125 | | | |
| Manganese | 0.52 | 0.0020 | 0.5000 | 0.0007391 | 103 | 75 | 125 | | | |
| Potassium | 55 | 1.0 | 50.00 | 1.683 | 106 | 75 | 125 | | | |
| Selenium | 0.60 | 0.050 | 0.5000 | 0 | 121 | 75 | 125 | | | |
| Silver | 0.096 | 0.0050 | 0.1000 | 0.002143 | 94.2 | 75 | 125 | | | |
| Uranium | 0.44 | 0.10 | 0.5000 | 0 | 88.6 | 75 | 125 | | | |
| Zinc | 0.54 | 0.020 | 0.5000 | 0.01978 | 105 | 75 | 125 | | | |

| Sample ID: 1908972-001DMSD | Samp | Type: MS | SD | Tes | tCode: EF | PA Method | 6010B: Disso | Ived Meta | als | |
|----------------------------|------------|-------------------|-----------|-------------|------------------|-----------|--------------|-----------|----------|------|
| Client ID: East Outfall #2 | Bato | th ID: A6 | 2272 | F | RunNo: 62 | 2272 | | | | |
| Prep Date: | Analysis I | Date: 8/ 2 | 20/2019 | 5 | SeqNo: 2 | 115468 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Barium | 0.57 | 0.020 | 0.5000 | 0.06311 | 101 | 75 | 125 | 1.00 | 20 | |
| Cadmium | 0.52 | 0.0020 | 0.5000 | 0 | 105 | 75 | 125 | 2.20 | 20 | |
| Chromium | 0.51 | 0.0060 | 0.5000 | 0 | 102 | 75 | 125 | 1.85 | 20 | |
| Copper | 0.54 | 0.0060 | 0.5000 | 0 | 108 | 75 | 125 | 1.08 | 20 | |
| Iron | 0.52 | 0.020 | 0.5000 | 0.005602 | 102 | 75 | 125 | 0.878 | 20 | |
| Lead | 0.50 | 0.0050 | 0.5000 | 0.007466 | 98.7 | 75 | 125 | 0.295 | 20 | |
| Magnesium | 78 | 1.0 | 50.00 | 25.28 | 105 | 75 | 125 | 0.589 | 20 | |
| Manganese | 0.51 | 0.0020 | 0.5000 | 0.0007391 | 102 | 75 | 125 | 0.837 | 20 | |
| Potassium | 54 | 1.0 | 50.00 | 1.683 | 105 | 75 | 125 | 0.449 | 20 | |
| Selenium | 0.59 | 0.050 | 0.5000 | 0 | 118 | 75 | 125 | 1.92 | 20 | |
| Silver | 0.095 | 0.0050 | 0.1000 | 0.002143 | 92.8 | 75 | 125 | 1.45 | 20 | |
| Uranium | 0.43 | 0.10 | 0.5000 | 0 | 85.4 | 75 | 125 | 3.68 | 20 | |
| Zinc | 0.54 | 0.020 | 0.5000 | 0.01978 | 103 | 75 | 125 | 1.48 | 20 | |

| Sample ID: MB-A | SampT | уре: МЕ | BLK | TestCode: EPA Method 6010B: Dissolved Metals | | | | | | | |
|-----------------|------------|------------------|-----------|--|----------|----------|-------------|------|----------|------|--|
| Client ID: PBW | Batch | ID: A6 | 2357 | R | tunNo: 6 | 2357 | | | | | |
| Prep Date: | Analysis D | ate: 8/ 2 | 22/2019 | S | SeqNo: 2 | 118867 | Units: mg/L | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Arsenic | ND | 0.020 | | | | | | | | | |
| Calcium | ND | 1.0 | | | | | | | | | |

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908972**

10-Sep-19

Client: Western Refining Southwest, Inc.

Project: San Juan River Bluff

Sample ID: LCS-A SampType: LCS TestCode: EPA Method 6010B: Dissolved Metals

Client ID: LCSW Batch ID: A62357 RunNo: 62357

Prep Date: Analysis Date: 8/22/2019 SegNo: 2118869 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Arsenic 0.50 0.020 0.5000 0 101 80 120 Calcium 50 1.0 50.00 0 100 80 120

Sample ID: 1908972-001DMS SampType: MS TestCode: EPA Method 6010B: Dissolved Metals

Client ID: East Outfall #2 Batch ID: A62357 RunNo: 62357

Prep Date: Analysis Date: 8/22/2019 SeqNo: 2118884 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Arsenic 0.52 0.020 0.5000 0 105 75 125

Sample ID: 1908972-001DMSD SampType: MSD TestCode: EPA Method 6010B: Dissolved Metals

Client ID: East Outfall #2 Batch ID: A62357 RunNo: 62357

Prep Date: Analysis Date: 8/22/2019 SeqNo: 2118885 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Arsenic 0.51 0.020 0.5000 0 102 75 125 2.25 20

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908972**

10-Sep-19

Client: Western Refining Southwest, Inc.

Project: San Juan River Bluff

Sample ID: MB-46876 SampType: MBLK TestCode: EPA 6010B: Total Recoverable Metals

Client ID: PBW Batch ID: 46876 RunNo: 62357

Prep Date: 8/19/2019 Analysis Date: 8/22/2019 SeqNo: 2118876 Units: mg/L

| ' | , | | | | • | | 3 | | | | |
|----------|--------|--------|-----------|-------------|------|----------|-----------|------|----------|------|--|
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Arsenic | ND | 0.020 | | | | | | | | | |
| Barium | ND | 0.020 | | | | | | | | | |
| Cadmium | ND | 0.0020 | | | | | | | | | |
| Chromium | ND | 0.0060 | | | | | | | | | |
| Selenium | ND | 0.050 | | | | | | | | | |
| Silver | ND | 0.0050 | | | | | | | | | |
| | | | | | | | | | | | |

| Sample ID: LCS-46876 | Samp | SampType: LCS TestCode: EPA 60 | | | | | | rable Meta | ıls | |
|----------------------|----------|--------------------------------|-----------|-------------|----------|----------|-------------|------------|----------|------|
| Client ID: LCSW | Bato | ch ID: 46 | 876 | F | RunNo: 6 | 2357 | | | | |
| Prep Date: 8/19/2019 | Analysis | Date: 8/ | 22/2019 | 8 | SeqNo: 2 | 118881 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | 0.50 | 0.020 | 0.5000 | 0 | 99.4 | 80 | 120 | | | |
| Barium | 0.48 | 0.020 | 0.5000 | 0 | 95.9 | 80 | 120 | | | |
| Cadmium | 0.49 | 0.0020 | 0.5000 | 0 | 98.2 | 80 | 120 | | | |
| Chromium | 0.49 | 0.0060 | 0.5000 | 0 | 97.0 | 80 | 120 | | | |
| Selenium | 0.48 | 0.050 | 0.5000 | 0 | 95.4 | 80 | 120 | | | |
| Silver | 0.096 | 0.0050 | 0.1000 | 0 | 95.6 | 80 | 120 | | | |

| Sample ID: 1908972-001CMS | SampType: MS TestCode: EPA 6010B: Total Recoverable Metals | | | | | | | | | |
|----------------------------|--|-----------------|-----------|-------------|----------|----------|-------------|------|----------|------|
| Client ID: East Outfall #2 | Bato | h ID: 468 | 876 | F | RunNo: 6 | 2357 | | | | |
| Prep Date: 8/19/2019 | Analysis | Date: 8/ | 22/2019 | S | SeqNo: 2 | 118944 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | 0.49 | 0.020 | 0.5000 | 0 | 98.4 | 75 | 125 | | | |
| Barium | 0.54 | 0.020 | 0.5000 | 0.06406 | 95.1 | 75 | 125 | | | |
| Cadmium | 0.51 | 0.0020 | 0.5000 | 0 | 101 | 75 | 125 | | | |
| Chromium | 0.48 | 0.0060 | 0.5000 | 0 | 96.8 | 75 | 125 | | | |
| Selenium | 0.48 | 0.050 | 0.5000 | 0 | 96.4 | 75 | 125 | | | |
| Silver | 0.097 | 0.0050 | 0.1000 | 0.002689 | 94.3 | 75 | 125 | | | |

| Sample ID: 1908972-001CMSI | ISD SampType: MSD | | | TestCode: EPA 6010B: Total Recoverable Metals | | | | | | |
|----------------------------|--------------------------|--------|-----------|---|------|----------|-------------|-------|----------|------|
| Client ID: East Outfall #2 | Batch ID: 46876 | | | RunNo: 62357 | | | | | | |
| Prep Date: 8/19/2019 | Analysis Date: 8/22/2019 | | | SeqNo: 2118945 | | | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | 0.48 | 0.020 | 0.5000 | 0 | 96.2 | 75 | 125 | 2.21 | 20 | |
| Barium | 0.54 | 0.020 | 0.5000 | 0.06406 | 94.5 | 75 | 125 | 0.615 | 20 | |
| Cadmium | 0.50 | 0.0020 | 0.5000 | 0 | 100 | 75 | 125 | 0.714 | 20 | |
| Chromium | 0.48 | 0.0060 | 0.5000 | 0 | 95.4 | 75 | 125 | 1.38 | 20 | |

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 24 of 27

Hall Environmental Analysis Laboratory, Inc.

WO#: 1908972

10-Sep-19

Client: Western Refining Southwest, Inc.

Project: San Juan River Bluff

Sample ID: 1908972-001CMSD SampType: MSD TestCode: EPA 6010B: Total Recoverable Metals Client ID: East Outfall #2 Batch ID: 46876 RunNo: 62357 Prep Date: 8/19/2019 Analysis Date: 8/22/2019 SeqNo: 2118945 Units: mg/L PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result LowLimit Qual 0.45 0.050 0.5000 Λ 90.0 75 125 6.90 20

Selenium Silver 0.097 0.0050 0.1000 0.002689 93.8 75 125 0.509 20

Sample ID: MB-46876 SampType: MBLK TestCode: EPA 6010B: Total Recoverable Metals

Client ID: PBW Batch ID: 46876 RunNo: 62376

Prep Date: 8/19/2019 Analysis Date: 8/23/2019 Units: mg/L SeqNo: 2120004

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

Lead ND 0.0050

Sample ID: LCS-46876 SampType: LCS TestCode: EPA 6010B: Total Recoverable Metals

Client ID: LCSW Batch ID: 46876 RunNo: 62376

Prep Date: 8/19/2019 Analysis Date: 8/23/2019 SeqNo: 2120006 Units: mg/L

Analyte PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual LowLimit

0.48 0.0050 96.0 120 0.5000 ٥ 80 Lead

Sample ID: 1908972-001CMS SampType: MS TestCode: EPA 6010B: Total Recoverable Metals

Client ID: East Outfall #2 Batch ID: 46876 RunNo: 62376

Prep Date: 8/19/2019 Analysis Date: 8/23/2019 SeqNo: 2120014 Units: mg/L

%RPD PQL SPK value SPK Ref Val %REC HighLimit **RPDLimit** Analyte Result LowLimit Qual

Lead 0.48 0.0050 0.5000 0.01108 94.0 75 125

Sample ID: 1908972-001CMSD SampType: MSD TestCode: EPA 6010B: Total Recoverable Metals

Client ID: East Outfall #2 Batch ID: 46876 RunNo: 62376

Prep Date: 8/19/2019 Analysis Date: 8/23/2019 SeqNo: 2120015 Units: mg/L

%RPD SPK value SPK Ref Val %REC **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual

0.48 0.0050 0.5000 0.01108 93.8 75 125 0.0234 20 Lead

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Н

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range Ε

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit Page 25 of 27

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908972**

10-Sep-19

Client: Western Refining Southwest, Inc.

Project: San Juan River Bluff

Sample ID: mb-1 alk SampType: mblk TestCode: SM2320B: Alkalinity

Client ID: PBW Batch ID: R62234 RunNo: 62234

Prep Date: Analysis Date: 8/19/2019 SeqNo: 2114558 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) ND 20.00

Sample ID: Ics-1 alk SampType: Ics TestCode: SM2320B: Alkalinity

Client ID: LCSW Batch ID: R62234 RunNo: 62234

Prep Date: Analysis Date: 8/19/2019 SeqNo: 2114559 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) 76.64 20.00 80.00 0 95.8 90 110

Sample ID: mb-2 alk SampType: mblk TestCode: SM2320B: Alkalinity

Client ID: PBW Batch ID: R62234 RunNo: 62234

Prep Date: Analysis Date: 8/19/2019 SeqNo: 2114581 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) ND 20.00

Sample ID: Ics-2 alk SampType: Ics TestCode: SM2320B: Alkalinity

Client ID: LCSW Batch ID: R62234 RunNo: 62234

Prep Date: Analysis Date: 8/19/2019 SeqNo: 2114582 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) 73.08 20.00 80.00 0 91.4 90 110

Sample ID: mb-3 alk SampType: mblk TestCode: SM2320B: Alkalinity

Client ID: PBW Batch ID: R62234 RunNo: 62234

Prep Date: Analysis Date: 8/19/2019 SeqNo: 2114604 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) ND 20.00

Sample ID: Ics-3 alk SampType: Ics TestCode: SM2320B: Alkalinity

Client ID: LCSW Batch ID: R62234 RunNo: 62234

Prep Date: Analysis Date: 8/19/2019 SeqNo: 2114605 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) 73.68 20.00 80.00 0 92.1 90 110

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 26 of 27

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908972**

10-Sep-19

Client: Western Refining Southwest, Inc.

Project: San Juan River Bluff

Sample ID: MB-46914 SampType: MBLK TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: PBW Batch ID: 46914 RunNo: 62301

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids ND 20.0

Sample ID: LCS-46914 SampType: LCS TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: LCSW Batch ID: 46914 RunNo: 62301

Prep Date: 8/20/2019 Analysis Date: 8/21/2019 SeqNo: 2117046 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids 1020 20.0 1000 0 102 80 120

Sample ID: 1908972-002BDUP SampType: DUP TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: East Outfall #3 Batch ID: 46914 RunNo: 62301

Prep Date: 8/20/2019 Analysis Date: 8/21/2019 SeqNo: 2117063 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids 671 20.0 0.298 10 *

Qualifiers:

* Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 27 of 27



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

| Client Name: | Western Refining Southw | Work Order Nun | nber: 1908972 | | RcptNo | : 1 |
|----------------------|--|---|----------------|------------|----------------------------|-------------------|
| Received By: | Isaiah Ortiz | 8/17/2019 8:40:00 | АМ | ike my li | 24 | |
| Completed By: | Anne Thorne | 8/19/2019 10:02:1 | D AM | Anne No | | |
| Reviewed By: D | AD 8/19/19 | | | Ume Jr | | |
| Chain of Cust | ody | | | | | |
| 1. Is Chain of Cus | | | Yes 🗹 | No 🗌 | Not Present | |
| 2. How was the s | ample delivered? | | <u>Courier</u> | | _ | |
| Log In | | | | | | |
| 3. Was an attemp | t made to cool the samples? | | Yes 🗹 | No 🗌 | NA 🗀 | |
| 4. Were all sample | es received at a temperature | of >0° C to 6.0°C | Yes 🗹 | No 🗌 | NA 🗆 | , |
| 5. Sample(s) in pr | oper container(s)? | | Yes 🗹 | No 🗌 | | |
| 6. Sufficient sample | le volume for indicated test(s) | ? | Yes 🗸 | No 🗆 | | · |
| 7. Are samples (ex | cept VOA and ONG) properly | preserved? | Yes 🗸 | No 🗌 | | |
| 8. Was preservativ | re added to bottles? | | Yes 🗌 | No 🗹 | NA 🗆 | |
| 9. VOA vials have | zero headspace? | | Yes 🗹 | No 🗌 | No VOA Vials | |
| 10. Were any samp | le containers received broker | 1? | Yes 🗆 | No 🗹 | # of preserved | WY |
| | match bottle labels? cies on chain of custody) | | Yes 🗹 | No 🗆 | bottles checked for pH: | >12 unless noted) |
| 12. Are matrices cor | rectly identified on Chain of C | Custody? | Yes 🗹 | No 🗌 | Adjusted | NO_ |
| | nalyses were requested? | | Yes 🗹 | No 🗆 | | A could |
| | times able to be met? comer for authorization.) | | Yes 🗹 | No 🗆 | Checked by: | 9:18:15 |
| Special Handlin | g (if applicable) | | | | | |
| | ed of all discrepancies with the | nis order? | Yes 🗌 | No 🗌 | NA 🗹 | |
| Person No | otified: | Date | | | | |
| By Whom: | | Via: | eMail P | none 🗌 Fax | ☐ In Person | |
| Regarding | * | | | | | |
| Client Inst | | | | | | |
| 16. Additional rema | rks: | | | | | |
| 17. Cooler Informa | TOTAL CO | | | | | |
| Cooler No | allander i de la la la la la la la la la la la la la | I Intact Seal No | Seal Date | Signed By | | |
| <u> </u> | .3 Good Yes | *************************************** | | | | |

| C | hain | of-Ci | Chain-of-Custody Record | Turn-Around Time. | Time. | | I | | | | | | | | | | | |
|-------------------------------|------------------|------------------|--|-------------------------|--------------------------------|--|------------------|---------|------------------|-------------------|--|----------|-----------------------|---------|----------------|----------|---|----------|
| Client | Wester | rn - Blo | Western - Bloomfield Terminal | X Standard | □ Rush | | | | I | AL | HALL ENVIRONMENT | Şί | S : | Ž | 1EP | Ę | 7 | |
| | | : | | Project Name | San Juan | Project Name: San Juan River Bluff | | | (| | WWW.hallenvironmental.com | | LABORALOK T | | 5 | 2 | Ž | |
| Mailing, | Mailing Address: | | 50 CR 4990 | 2019 Annu | ual Sampling Event | ng Event | 7 | 1901 F | lawkii Jawkii | 4901 Hawkins NE | ale - | Janer | Albuquerane, NM 87109 | 78 M | 109 | | | |
| | | Bloom | Bloomfield, NM 87413 | Project #: | | | | Tel. 5 | 05-34 | Tel. 505-345-3975 | | ax 5 | Fax 505-345-4107 | 5-410 | 22 | | | |
| Phone #: | | 419-42 | 419-421-2338 | | İ | | | | | | nal | sis Re | Request | + | | | | |
| Email | gimccart | ney@ma | Email: gjmccartney@marathonpetroleum.com | Project Manaç | ger: Gregor | Project Manager: Gregory McCartney | , | ┡ | | | | | | | _ | | | |
| QA/QC Package: | ackage: | | | | | | | | | | | -100 | | | | | | |
| □ Standard | Jard | | X Level 4 (Full Validation) | | | | | | | (SIV | | | | | | IUA | | |
| □ Other | | | | Sampler: | Tracy Payne | e - 919-561-7055 | | | ۱) | | _ | - | | | | · - K | | (1 |
| X EDD (Type) | (Type) | EXCEL | | | ⊠ Yes | □ No | | | .81 | | | | | | | ופנג | | / Jo |
| | | | | Ten | nperature: 4,υ | -0,1(cF) 43°C | | | t b | | | | | | | шә | | (人 |
| | | | Ē | | | | | | oqje | | | | | _ | | <u></u> | | səl |
| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL No. | N+X3T8 N+X3T8 | 08 HG | M) HG | M) 8QE | Fotal Re | vlossiC | 9G 1808 | S) 0728 | HO nes | ls19n95 | | vir Bubb |
| 8/15/9 1515 | 1515 | H ₂ 0 | East Outfall #2 | 40ml VOA-5 | 를 달 | 1582 | + | | - | | | | + | | +- | + | | 7 |
| - | | H ₂ 0 | East Outfall #2 | 250 ml plastic-1 | HNO3 | (02) | | | | | × | <u> </u> | | | | <u> </u> | | 1 |
| | | H ₂ 0 | East Outfall #2 | 125 ml plastic-1 | HNO3 | 183 | | | | - | | × | ļ | | | | | |
| | | H ₂ O | East Outfall #2 | 125 ml plastic-1 | H ₂ SO ₄ | 102 | | | | | | | | | ^ | × | | |
| | | H ₂ 0 | East Outfall #2 | 500 ml plastic-1 | Neat | 100 | | | | | | | | | × | × | | |
| | | | - | | | | | <u></u> | | | | <u> </u> | | | | | | 1 |
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| Date: Time: 9/6/9 1535 | | Relinquished by: | \ | Received by: | - | Date Time | Remarks: | | ee An | alytic | See Analytical Methods and Target Analytes | e spo | nd Ta | ırget / | ∖nalyt | es | | |
| Date: | | Refined by: | ed by: | Received by: | ۶ ۲ | (1) (1) (2) (2) (2) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4 | _ | | | | | | | | | | | |
| 8/16/10 1756 | 1786 | | Mastra Wolake | Q 1 | Courier | Course 6/17/19 0840 | | | | | | | | | | | | |
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| <u>ວ</u> | hain | -of-CL | Chain-of-Custody Record | Turn-Around Time: | Time: | | | | Ī | | | | Š | Ž | ENVIDONMENTAL | | |
| Client: | Weste | ın - Bk | Client: Western - Bloomfield Terminal | X Standard | □ Rush | | | | ₹ | | | S | AB | OR | Ā | 1 8 | |
| | | İ | | Project Name | San Juan | Project Name: San Juan River Bluff | | | ¦ ≶ | ww.ha | www.hallenvironmental.com | nmen | aí.con |) - | , - - | | _ |
| Mailing Address: | Address | | 50 CR 4990 | 2019 Annu | 2019 Annual Sampling Event | ig Event | 4 | 901 H | 4901 Hawkins NE | NE | - Albuc | Inerqu | Albuquerque, NM 87109 | 8710 | တ | | |
| | | Bloom | Bloomfield, NM 87413 | Project #: | | | <u>'</u> | Tel. 5(| 5-345 | 505-345-3975 | Fax | . 505 × | 505-345-4107 | .107 | | | |
| Phone #: | | 419-42 | 419-421-2338 | • | | | | | | A | Analysis | | Request | | : | | |
| Email: (| yjmccar | rtney@ma | gimccartney@marathonpetroleum.com | Project Mana | ger: Gregor | Project Manager: Gregory McCartney | | - | - | | | | γl | | | | |
| QA/QC Package: | ackage: ard | | X Level 4 (Full Validation) | | | | | | | (SI | tals | PCB's | no 38 | ² 00/ | suoin | | |
| □ Other | - | | | Sampler | Tracy Payn | Tracy Payne - 919-561-7055 | | | | | ∍M - | 280 | LW " | Λin | 1 - 1 | | (|
| X EDD (Type) | Type) | EXCEL | 111 481 | | - Aryes | No □ | | | | | | _ | | | nisi | | Изс |
| | | | | Sample Tem | Sample Temperature: 4-0.1 | -016F) 4.2 | | | | | | | | | เผอ | |) (Y |
| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL NO. 1908972 | 8TM+X3T8 8TM+X3T8 | 83108 H9T | TPH (Metho | EDB (Metho | Total Recor | oitea¶ r808 | 8560B (VO) | 6en Chem | General Ch | | Air Bubbles |
| 8/15/19 | 1420 | H ₂ 0 | East Outfall #3 | 40ml VOA-5 | ІЭН | 202 | | | | | | | | | | | |
| | | H ₂ 0 | East Outfall #3 | 250 ml plastic-1 | HNO ₃ | 202 | | | | | × | | | | | _ | |
| | | H ₂ 0 | East Outfall #3 | 125 ml plastic-1 | HNO ₃ | 702 | | | | | × | | | | | | |
| | | H ₂ 0 | East Outfall #3 | 125 ml plastic-1 | H ₂ SO ₄ | 202 | | | | | | | | | × | | |
| -> | \rightarrow | H ₂ 0 | East Outfall #3 | 500 ml plastic-1 | Neat | 702 | | | | | | | | × | × | | |
| | | | | | | | | | • | | | | | | | | |
| | | | | | | | | | | | | | | - | | | |
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| Date: Time: | ime: \539 | Relinquished by: | | Received by: | * 100(~) | Date Time $\mathcal{E}/\mu_{1,2}\mu_{2}/\zeta_{2}g$ | Remarks | | e Ans | alytical | See Analytical Methods and Target Analytes | ds and | l Targ | et Ana | alytes | | |
| Date: | Time: | Relipquished by | ed by: | Received by: | GENTHOU | Date (| | | | | | | | | | | |
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|---|------------------|------------------|-----------------------------------|-------------------------|------------------------------|------------------------------------|---------------|---------|-----------------|---------------------------|--------------------------|----------|-----------------------|----------------------|--------|--------------|-----------|
| ပ | hain | of-Cr | Chain-of-Custody Record | Turn-Around Time: | Time: | | | | Ī | | 2 U | | ENVIDONMENTAL | Σ | 2 | × | |
| Client: | | ım - Bk | Western - Bloomfield Terminal | X Standard | □ Rush | | | | ₹ | ANALYSIS LABORATORY | ֡֞֞֓֓֞֟֓֓֟֟֟֝֟֟֝֓֟֟֟֝֟֟ | | AB | OR | | 1 2 | |
| | | | | Project Name | Project Name: San Juan River | River | | | ≥ | www.hallenvironmental.com | envirc | nemu | tal.com | - | ! ! | | _ |
| Mailing | Mailing Address: | 5: 50 CF | 50 CR 4990 | 2019 Ann | 2019 Annual Sampling Event | ig Event | 4 | 901 F | 4901 Hawkins NE | » NE | Albuc | nerar | Albuquerque, NM 87109 | 8710 | _ | | |
| | Ī | Bloom | Bloomfield, NM 87413 | Project #: | | | Ċ | Tel. 5(| 5-345 | 505-345-3975 | Fax | x 505 | 505-345-4107 | 107 | | | |
| Phone #: | . | 419-42 | 419-421-2338 | | | | | | | A | Analysis | | Request | | | | |
| Email: | gimccar | tney@ma | gimccartney@marathonpetroleum.com | Project Mana | ger: Gregor | Project Manager: Gregory McCartney | | | | | | \vdash | A | | 7 | | |
| QA/QC F | QA/QC Package: | | | | | | | | | | (108 | | ijuo | | ဝ၁ | ίλ | |
| □ Standard | dard | | X Level 4 (Full Validation) | | | | | | | (SN | | | 381 | | หูรเ | iuili | |
| □ Other | ا | | | Sampler: | Tracy Payn | Tracy Payne - 919-561-7055 | | | | | | | .W'X | | ıoir | /IKs | (1 |
| X EDD | X EDD (Type)_ | EXCEL | | On Ice: | ₽ Yes | oN 🗆 | | | | | | | | | 1A | / - ' | N 1c |
| | | | | Sample Tem | Sample Temperature 44-0.\(CE | 01/ce) 4.3.5 | | | | | | | | | ะแอ | ้เมอ |) (Y (|
| | | | | | | | | | | | | | | | чэ | <u>ч</u> э | sə |
| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL No. | EX+N -EX+P | 108 H | ∍M) H | M) 80 | 8 A져 2 I) anoi | 94 18 |) 809 | 9 ^ 055 | neral | neral | gqng . |
| | | | | | | 1403472 | \rightarrow | | | _ | - | \dashv | \dashv | \rightarrow | ອອ | eg | ηiΑ |
| 8/6/PO825 | 0825 | H ₂ 0 | Upstream | 40ml VOA-5 | ЭH | 7603 | | × | | | | | × | | | | |
| ` | | H ₂ 0 | Upstream | 250 ml amber-1 | Neat | 263 | | × | | | | | | | | | |
| | | H ₂ 0 | Upstream | 250 ml plastic-1 | HNO3 | 502 | | | | | × | ; | | | | | <u> </u> |
| | | H ₂ 0 | Upstream | 125 ml plastic-1 | HNO3 | 203 | | | | | | | | × | × | | |
| | | H ₂ O | Upstream | 125 ml plastic-1 | H ₂ SO₄ | 7603 | | | | | | | | | × | | |
| \rightarrow | \rightarrow | H ₂ 0 | Upstream | 500 ml plastic-1 | Neat | 602 | | | | | | | | | | × | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | + | | | | | _ | |
| | | | | | | | | | | | ļ | | | | | | <u> </u> |
| 19 | Time: 539 | Relinquished by: | ed by: | Received by: | Lobot. | Date Time 8/16/19 15.39 | Remarks: | | See Ar | Analytical Methods | al Me | thod | | and Target Analytes. | et Ar | alyte | SS. |
| Date: 8//u/frg | Time: [756 | Relinquished by | ed by: | Received by: | CONTRION | SINI 9 | | | | | | | | | | | |
| 3 | . 1 | | | | | | | | | | | | | | | | |

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| S | žir. | Of-Cir | Chain-of-Custody Record | Turn-Around | Time. | | 1 | | | | | | | 1 |) | 7 5 | | |
|------------------------------|---------|-------------------|-----------------------------------|----------------------------|--------------------|------------------------|----------------|-------------------|--------|--------------|---------------------------|--------------------|--------------|----------|----------|----------------------|-------------|---------|
| 5 | | 5 | Stody Incolu | | <u>;</u> | | | | Ì | HALL | | ENVIRONMENTAL | 02 | Ž | | E | | |
| Client: V | Veste | ırn - Blo | Western - Bloomfield Terminal | X Standard | □ Rush | | | | 4 | Ž | | SI | 3 | 80 | Ž | 0 | ! ≿ | |
| | | | | Project Name | San Juan River | ı River | | | } ≶ | w.ha | www.hallenvironmental.com | onme | ntaí.c | Ë | | | : | |
| Mailing Address: | ddress | | 50 CR 4990 | 2019 Annual Sampling Event | al Samplir | ng Event | 4 | 4901 Hawkins NE | awkin | Ä K | - Albuquerque, NM 87109 | Idneid | lue, N | IM 87 | 109 | | | |
| | | Bloom | Bloomfield, NM 87413 | Project #: | | | _ | Tel. 505-345-3975 | 5-345 | -3975 | ιĽ | Fax 50 | 505-345-4107 | 5-410 | _ | | | |
| Phone #: | | 419-42 | 419-421-2338 | | | | | | | 1 | ınal | is Re | dnes | + | | | | |
| Email: g | mccar | tney@ma | gimccartney@marathonpetroleum.com | Project Manag | ger: Gregor | Jer: Gregory McCartney | | | | | | | | | | 7 | | |
| QA/QC Package: □ Standard | ickage: | | X Level 4 (Full Validation) | | | ı | | | | (SI | | | | | 00 80 | | | |
| □ Other | | | | Sampler: | Tracy Payne | le - 919-561-7055 | | | | | | | | | | | | (|
| X EDD (Type) | Type) | EXCEL | | On Ice: | Yes | ļ , | | | | | | | | (A | | | | N 10 |
| | | | | Sample Temperature: 4.4-0 | erature: 4.4 | -0.1(cr) 43°C | | | | | | | | ΟV. | | | | 入) |
| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative | HEAL No. | atm+x atm+x | 8015B | (Metho | Metho (8310) | 9M 8 A | ns (F,CI Pestic | B (VO | ·imə2) (| i bevio | eral Ch eral Ch | | səlqqng |
| | | | | i ype alid # | , ype | 1908972 | | | | | | | |)\Z8 | | | | ∃ ıiA |
| 8/16/19 0930 | 1930 | H ₂ O | North of 45 | 40ml VOA-5 | HCI | 502 | | × | | | | } | × | | | | |] |
| | | H ₂ O | North of 45 | 250 ml amber-1 | Neat | 702 | | × | | | | [| | | | | | Ï |
| | | H ₂ O | North of 45 | 250 ml plastic-1 | HNO3 | 400 | | | | | × | | | | | | | |
| | | H ₂ O | North of 45 | 125 ml plastic-1 | HNO ₃ | h/2- | | | | | | | | | × | × | | |
| | | H ₂ O | North of 45 | 125 ml plastic-1 | H ₂ SO₄ | haz | | | | | | | | | | × | | |
| | > | H ₂ O | North of 45 | 500 ml plastic-1 | Neat | tal | | <u> </u> | | | | <u> </u> | | | | <u>×</u> | | |
| • | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | _ | | | _ | | \dashv | \perp | | Τ |
| | | | | | | | | | + | | | - | | | - | | | |
| Date: Ti | Time: | Relinquished by: | sd by: | Received by: | | Date Time | Remarks: | | See Ar | alyti | Analytical Methods | etho | ds ar | | arget | and Target Analytes. |] Ates | |
|) Jate: | | Palina iishad hiv | of hu | December by: | - William | Poste Time | | | | | | | | | | | | |
| 6- | 132 | 3 | MAKS 1/ JOEANS (| | 7 | | | | | | | | | | | | | |
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| | LABORATORY | | | | | | ity | nila | | | | Seneral Ch | | | | | | × | | | | | and Target Analytes. | |
|-------------------------|---------------------------------------|------------------------------|----------------------------|----------------------|--------------|--|----------------|-----------------------------|----------------|---------------|----------------|-------------------------|------------------|-------------------|---------------------|---------------------|--------------------------------|---------------------|----------|----|----------|---|---|-------------|
| TAIL ENVISONMENT | | ! ! | ~ | | | z | 001 | 8su | oin | A- . | เล | Seneral Ch | | | | × | × | | | | | | et A | |
| | 3 | | Albuquerque, NM 87109 | 20 | | | | | | sls | tə№ | l bevlossi | 1 | | | × | | | | | | | arg | |
| | . O | Ë | 8 ∑ | Fax 505-345-4107 | it | | | | | (A | ΟΛ- | -imə2) 0728 | 3 | | | | | | | | | | _ <u>5</u> _ | |
| | ₹ | ital.o | ue, r | 5-34 | Request | — | | | | | | 3260B (VO | +- | · . | | | | | | | | | | |
| | _ | ധ | uerq | 50. | Rec | | | | | | | Sold Pestic | | | | | | | | | | | thoc | |
| Ź | SI | Viror | bnq | Fax | Analysis | | (°0S | | | | | lO,∃) anoin/ | + | | | | | | | | | | Me i | |
| | ANALYSIS | www.hallenvironmental.com | 1 | | Ana | | | | | | | SCRA 8 Me | + | ļ . | × | · | | | | _ | _ | | Analytical Methods | |
| - | įĘ | ¥. | Z Z | 397 | | | | SM | | | | 0168) HAG | + | | | | | | | | \dashv | | alyt | |
| Ì | È | ⋚ | vkins | 345- | | | | | | | | onbally III | - | | | | | | | | _ | _ | An | |
| | | _ | Hav | 505- | | | | | | | | LPH (Metho | _ | | | | | | | | | | See | |
| | | | 4901 Hawkins NE | Tel. 505-345-3975 | | | | | | | | PH 8015B | | × | | | | | | | | | | |
| | | | 4 | • | | ' | - | | | | | 8TEX+MTB | - | | | | | | \dashv | _ | - | | Remarks: | |
| | | | | | | | ()(| 208 |)ə,¤ | INAT | .+ <u>-</u> : | I BTEX+MTB | 1 | | | | | , | | | | | <u>~</u> | |
| | í | liver | Event | | | Project Manager: Gregory McCartney | | | - 919-561-7055 | □ No | -0.1(cr) 43° | HEAL NO. | 7 65 | 500 | 705 | 502 | 302 | 168 | | [. | | ļ | Date Time $\frac{3/ \nu /\rho}{ \Sigma }$ | 8/1 /d 08/0 |
| | Rush | Juan R | pling | | | gory | | | Payne . | | | * | <u> </u> | + | <u> </u> |)3 | 7 | Ţ | | | | | | ह जा |
| Time: | | e: San J | ıal Sam | | | ıger: Gre | | | Tracy F | Ma Yes | mperature: ५ ५ | Preservative Type | 달 | Neat | HNO3 | FONH | [₹] OS ^z H | Neat | | | | | hee | - Columbi |
| Turn-Around Time | X Standard | Project Name: San Juan River | 2019 Annual Sampling Event | Project #: | | Project Mana | | | Sampler: | On Ice: | Sample Tem | Container Type and # | 40ml VOA-5 | 250 ml amber-1 | 250 ml plastic-1 | 125 ml plastic-1 | 125 ml plastic-1 | 500 ml plastic-1 | | | | | Received by: | 4 |
| Chain-of-Custody Record | Client: Western - Bloomfield Terminal | | 4990 | Bloomfield, NM 87413 | -2338 | Email: gjmccartney@marathonpetroleum.com | | X Level 4 (Full Validation) | | | | Sample Request ID | North of 46 | North of 46 | North of 46 | North of 46 | North of 46 | North of 46 | | | | | | With Wests |
| -of-Cu | rn - Blo | | : 50 CR 4990 | Bloomf | 419-421-2338 | tney@mar | | • | | EXCEL | | Matrix | H ₂ 0 | H ₂ 0 | H ₂ 0 | H ₂ O | H ₂ 0 | H ₂ O | | | | | Relinquished by: | <u>3</u> |
| hain | Weste | | Mailing Address: | | #: | gimccar | QA/QC Package: | ıdard | ¥. | X EDD (Type)_ | | Time | 1030 | | | | | \ | | | | | Time: | 1756 |
| S | Client: | | Mailing | | Phone #: | Email: | QA/QC I | ☐ Standard | □ Other | X EDD | | Date | 0801 1448 | | | | | -> | | | | | | Slich 9 |

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TABLE 2

Analytical Methods and Target Analytes Facility-Wide Groundwater Monitoring Plan - June 2014 Western Refining Southwest, Inc. - Bloomfield Terminal

| | Cs (EPA Method 8260B) (1) |
|------------|---|
| - Ta | rget List |
| | Benzene |
| | Toluene |
| | Ethylbenzene |
| | Xylenes |
| | Methyl tert butyl ether (MTBE) |
| SVO | Cs - (EPA Method 8270) |
| | - Method List |
| ГРН | I-GRO (EPA Method 8015B) |
| | - Gasoline Range Organics |
| ГРН | -DRO (EPA Method 8015B) |
| | - Diesel Range Organics |
| | - Motor Oil Range Organics |
| Γota | l Carbon Dioxide (Laboratory Calculated) |
| | - Dissolved CO2 |
| Spec | ific Conductivity (EPA Method 120.1 or field measurement) |
| | - Specific conductance |
| <u>rds</u> | (EPA Method 160.1 or field measurement) |
| | - Total dissolved solids |
| Jene | eral Chemistry - Anions (EPA Method 300.0) |
| | Fluoride |
| | Chloride |
| | Bromide |
| | Nitrogen, Nitrite (as N) |
| | Nitrogen, Nitrate (as N) |
| | Phosphorous, Orthophosphate (As P) |
| | Sulfate |
| Jene | ral Chemistry - Alkalinity (EPA Method 310.1) |
| | Alkalinity, Total |
| | Carbonate |
| | Bicarbonate |

| Total Recoverable Metals (EPA | A Method 6010B/7470) | | | | | | | | |
|--|--------------------------------|--|--|--|--|--|--|--|--|
| - Target List (not applicable to R | Liver Terrace Sampling Events) | | | | | | | | |
| Arsenic | Lead | | | | | | | | |
| Barium | Mercury | | | | | | | | |
| Cadmium | Selenium | | | | | | | | |
| Chromium | Silver | | | | | | | | |
| - Target List (for River Terrace S | Sampling Events Only) | | | | | | | | |
| Lead · | - ' | | | | | | | | |
| Mercury (DW-1 ONL | ĹŶ) | | | | | | | | |
| | | | | | | | | | |
| Dissolved Metals (EPA Method | | | | | | | | | |
| Target List (for Refinery Comp | olex, Outfalls, and River) | | | | | | | | |
| Arsenic Manganese | | | | | | | | | |
| Barium | Mercury | | | | | | | | |
| Cadmium | Potassium | | | | | | | | |
| Calcium | Selenium | | | | | | | | |
| Chromium | Silver | | | | | | | | |
| Copper | Sodium | | | | | | | | |
| Iron | Uranium | | | | | | | | |
| Lead | Ztnc | | | | | | | | |
| Magnesium | | | | | | | | | |
| | | | | | | | | | |

TPH = total petroleum hydrocarbons GRO = gasoline range organics VOCs = volatile organic compounds DRO = diesel range organics TDS = total dissolved solids

NOTES:

- (1) VOCs Target List for River Terrace samples are analyzed by EPA Method 8021B per NMED's letter Approval with Direction dated June 16, 2009.
- (2) Target List for San Juan River Terrace Monitoring Wells and Piezomenter Wells only, per the River Terrace Bioventing System Monitoring Plan.



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

September 16, 2019

Gregory McCartney Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4135 FAX: (505) 632-3911

RE: 2019 Annual GW Sampling Event OrderNo.: 1908D80

Dear Gregory McCartney:

Hall Environmental Analysis Laboratory received 9 sample(s) on 8/22/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 7:50:00 AM

Lab ID: 1908D80-001A Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | В | atch ID |
|----------------------------------|--------|--------|------------|----|--------------------|------|---------|
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Anal | yst: | RAA |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 8/27/2019 10:12:21 | AM | GW6245 |
| Surr: BFB | 98.6 | 70-130 | %Rec | 1 | 8/27/2019 10:12:21 | | GW6245 |
| EPA METHOD 8260B: VOLATILES | | | | | Anal | yst: | RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Toluene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,3,5-Trimethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | | R62453 |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Naphthalene | ND | 2.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1-Methylnaphthalene | ND | 4.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 2-Methylnaphthalene | ND | 4.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Acetone | ND | 10 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Bromobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Bromodichloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Bromoform | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Bromomethane | ND | 3.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 2-Butanone | ND | 10 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Carbon disulfide | ND | 10 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Carbon Tetrachloride | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Chlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Chloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Chloroform | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Chloromethane | ND | 3.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 2-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 4-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| cis-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| cis-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Dibromochloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Dibromomethane | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,2-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | | R62453 |
| 1,3-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,4-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | | R62453 |
| Dichlorodifluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | | R62453 |
| 1,1-Dichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,1-Dichloroethene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,2-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | | |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 7:50:00 AM

Lab ID: 1908D80-001A Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | В | atch ID |
|-----------------------------|--------|--------|------------|----|--------------------|------|---------|
| EPA METHOD 8260B: VOLATILES | | | | | Anal | yst: | RAA |
| 1,3-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 2,2-Dichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,1-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Hexachlorobutadiene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 2-Hexanone | ND | 10 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Isopropylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 4-Isopropyltoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 4-Methyl-2-pentanone | ND | 10 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Methylene Chloride | ND | 3.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| n-Butylbenzene | ND | 3.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| n-Propylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| sec-Butylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Styrene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| tert-Butylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Tetrachloroethene (PCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| trans-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| trans-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,2,3-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,2,4-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,1,1-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,1,2-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Trichloroethene (TCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Trichlorofluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| 1,2,3-Trichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Vinyl chloride | ND | 1.0 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Surr: 1,2-Dichloroethane-d4 | 93.7 | 70-130 | %Rec | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Surr: 4-Bromofluorobenzene | 96.0 | 70-130 | %Rec | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Surr: Dibromofluoromethane | 96.5 | 70-130 | %Rec | 1 | 8/27/2019 10:12:21 | AM | R62453 |
| Surr: Toluene-d8 | 98.7 | 70-130 | %Rec | 1 | 8/27/2019 10:12:21 | AM | R62453 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 7:50:00 AM

Lab ID: 1908D80-001B Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|----------|------------|----|---------------------|-----------------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Anal | yst: JME |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 8/28/2019 7:24:03 F | PM 47076 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 8/28/2019 7:24:03 F | PM 47076 |
| Surr: DNOP | 112 | 52.7-168 | %Rec | 1 | 8/28/2019 7:24:03 F | PM 47076 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-1

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/21/2019 7:50:00 AM

Lab ID: 1908D80-001C Matrix: Aqueous

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|-------------------------------------|--------|-------|------|---------|----|----------------------|---------------|
| CARBON DIOXIDE | | | | | | Analys | t: JRR |
| Total Carbon Dioxide | 280 | 1.0 | Н | mg CO2/ | 1 | 8/26/2019 3:40:37 PM | R62429 |
| EPA METHOD 300.0: ANIONS | | | | | | Analys | t: MRA |
| Fluoride | ND | 0.50 | | mg/L | 5 | 9/7/2019 11:06:24 AM | R62756 |
| Chloride | 10 | 2.5 | | mg/L | 5 | 9/7/2019 11:06:24 AM | R62756 |
| Bromide | ND | 0.50 | | mg/L | 5 | 9/7/2019 11:06:24 AM | R62756 |
| Phosphorus, Orthophosphate (As P) | ND | 2.5 | Н | mg/L | 5 | 9/7/2019 11:06:24 AM | R62756 |
| Sulfate | 120 | 2.5 | | mg/L | 5 | 9/7/2019 11:06:24 AM | R62756 |
| Nitrate+Nitrite as N | ND | 1.0 | | mg/L | 5 | 9/7/2019 1:27:56 PM | R62756 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | Analys | t: JRR |
| Conductivity | 810 | 5.0 | | µmhos/c | 1 | 8/26/2019 3:40:37 PM | R62429 |
| SM2320B: ALKALINITY | | | | | | Analys | t: JRR |
| Bicarbonate (As CaCO3) | 297.3 | 20.00 | | mg/L Ca | 1 | 8/26/2019 3:40:37 PM | R62429 |
| Carbonate (As CaCO3) | ND | 2.000 | | mg/L Ca | 1 | 8/26/2019 3:40:37 PM | R62429 |
| Total Alkalinity (as CaCO3) | 297.3 | 20.00 | | mg/L Ca | 1 | 8/26/2019 3:40:37 PM | R62429 |
| SM2540C MOD: TOTAL DISSOLVED SOLIDS | | | | | | Analys | t: JMT |
| Total Dissolved Solids | 528 | 20.0 | * | mg/L | 1 | 8/29/2019 8:45:00 AM | 47078 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 7:50:00 AM

Lab ID: 1908D80-001D Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID | | |
|-------------------------------------|--------|---------|------------|----|----------------------|-----------------|--|--|
| EPA METHOD 7470: MERCURY | | | | | Analyst: rde | | | |
| Mercury | ND | 0.00020 | mg/L | 1 | 9/6/2019 4:48:58 PM | 47323 | | |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | Analy | /st: bcv | | |
| Arsenic | ND | 0.020 | mg/L | 1 | 8/27/2019 1:03:58 PI | M 47018 | | |
| Barium | 0.070 | 0.020 | mg/L | 1 | 8/27/2019 12:14:45 F | PM 47018 | | |
| Cadmium | ND | 0.0020 | mg/L | 1 | 8/27/2019 12:14:45 F | PM 47018 | | |
| Chromium | ND | 0.0060 | mg/L | 1 | 8/27/2019 12:14:45 F | PM 47018 | | |
| Lead | ND | 0.0050 | mg/L | 1 | 8/27/2019 12:14:45 F | PM 47018 | | |
| Selenium | ND | 0.050 | mg/L | 1 | 8/27/2019 12:14:45 F | PM 47018 | | |
| Silver | ND | 0.0050 | mg/L | 1 | 8/27/2019 12:14:45 F | PM 47018 | | |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-1

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/21/2019 7:50:00 AM

Lab ID: 1908D80-001E Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|---------|------------|----|----------------------|----------------|
| EPA METHOD 7470: MERCURY | | | | | Analys | st: rde |
| Mercury | ND | 0.00020 | mg/L | 1 | 9/10/2019 5:52:50 PM | 47378 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | Analys | st: bcv |
| Arsenic | ND | 0.020 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |
| Barium | 0.036 | 0.020 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |
| Cadmium | ND | 0.0020 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |
| Calcium | 86 | 1.0 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |
| Chromium | ND | 0.0060 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |
| Copper | ND | 0.0060 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |
| Iron | ND | 0.020 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |
| Lead | 0.0051 | 0.0050 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |
| Magnesium | 18 | 1.0 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |
| Manganese | 0.012 | 0.0020 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |
| Potassium | 2.1 | 1.0 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |
| Selenium | ND | 0.050 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |
| Silver | ND | 0.0050 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |
| Sodium | 60 | 1.0 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |
| Uranium | ND | 0.10 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |
| Zinc | ND | 0.020 | mg/L | 1 | 9/9/2019 8:54:37 AM | A62764 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-13

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 9:10:00 AM

Lab ID: 1908D80-002A Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|----------------------------------|--------|--------|------------|----|----------------------|----------|
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analy | st: RAA |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 8/27/2019 11:38:39 A | M GW624 |
| Surr: BFB | 97.9 | 70-130 | %Rec | 1 | 8/27/2019 11:38:39 A | |
| EPA METHOD 8260B: VOLATILES | | | | | Analy | st: RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Toluene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| 1,3,5-Trimethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Naphthalene | ND | 2.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| 1-Methylnaphthalene | ND | 4.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| 2-Methylnaphthalene | ND | 4.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Acetone | ND | 10 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Bromobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Bromodichloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Bromoform | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Bromomethane | ND | 3.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| 2-Butanone | ND | 10 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Carbon disulfide | ND | 10 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Carbon Tetrachloride | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Chlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Chloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Chloroform | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Chloromethane | ND | 3.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| 2-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| 4-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| cis-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| cis-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Dibromochloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Dibromomethane | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| 1,2-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | |
| 1,3-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| 1,4-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | M R62453 |
| Dichlorodifluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | |
| 1,1-Dichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | |
| 1,1-Dichloroethene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | |
| 1,2-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 A | |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
 - 8 % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-13

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 9:10:00 AM

Lab ID: 1908D80-002A Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Bat | tch ID |
|-----------------------------|--------|--------|------------|----|--------------------|--------|--------|
| EPA METHOD 8260B: VOLATILES | | | | | Anal | yst: F | RAA |
| 1,3-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| 2,2-Dichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| 1,1-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| Hexachlorobutadiene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| 2-Hexanone | ND | 10 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| Isopropylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| 4-Isopropyltoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| 4-Methyl-2-pentanone | ND | 10 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| Methylene Chloride | ND | 3.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| n-Butylbenzene | ND | 3.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| n-Propylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| sec-Butylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| Styrene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| tert-Butylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| Tetrachloroethene (PCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| trans-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| trans-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| 1,2,3-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| 1,2,4-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| 1,1,1-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| 1,1,2-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| Trichloroethene (TCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| Trichlorofluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| 1,2,3-Trichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| Vinyl chloride | ND | 1.0 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| Surr: 1,2-Dichloroethane-d4 | 95.2 | 70-130 | %Rec | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| Surr: 4-Bromofluorobenzene | 97.5 | 70-130 | %Rec | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| Surr: Dibromofluoromethane | 97.9 | 70-130 | %Rec | 1 | 8/27/2019 11:38:39 | AM F | R62453 |
| Surr: Toluene-d8 | 97.7 | 70-130 | %Rec | 1 | 8/27/2019 11:38:39 | AM F | R62453 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

9/16/2019

Date Reported:

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc.

Client Sample ID: MW-13

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/21/2019 9:10:00 AM

Lab ID: 1908D80-002B Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|----------|------------|----|---------------------|-----------------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Anal | yst: JME |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 8/28/2019 8:37:58 F | PM 47076 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 8/28/2019 8:37:58 F | PM 47076 |
| Surr: DNOP | 112 | 52.7-168 | %Rec | 1 | 8/28/2019 8:37:58 F | PM 47076 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

CLIENT:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-13

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/21/2019 9:10:00 AM

Lab ID: 1908D80-002C Matrix: Aqueous

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch ID | |
|-------------------------------------|---|-------|------|---------|---------------|----------------------|---------------|--|
| CARBON DIOXIDE | | | | | | Analys | t: JRR | |
| Total Carbon Dioxide | 860 | 1.0 | Н | mg CO2/ | 1 | 8/26/2019 3:54:55 PM | R62429 | |
| EPA METHOD 300.0: ANIONS | | | | | | Analyst: MRA | | |
| Fluoride | ND | 0.50 | | mg/L | 5 | 9/7/2019 11:32:07 AM | R62756 | |
| Chloride | 180 | 10 | | mg/L | 20 | 9/7/2019 11:45:00 AM | R62756 | |
| Bromide | 2.3 | 0.50 | | mg/L | 5 | 9/7/2019 11:32:07 AM | R62756 | |
| Phosphorus, Orthophosphate (As P) | ND | 2.5 | Н | mg/L | 5 | 9/7/2019 11:32:07 AM | R62756 | |
| Sulfate | 1100 | 25 | * | mg/L | 50 | 9/9/2019 5:45:29 PM | R62780 | |
| Nitrate+Nitrite as N | 1.8 | 1.0 | | mg/L | 5 | 9/7/2019 1:40:49 PM | R62756 | |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | Analys | t: JRR | |
| Conductivity | 3800 | 5.0 | | µmhos/c | 1 | 8/26/2019 3:54:55 PM | R62429 | |
| SM2320B: ALKALINITY | | | | | | Analys | t: JRR | |
| Bicarbonate (As CaCO3) | 875.1 | 20.00 | | mg/L Ca | 1 | 8/26/2019 3:54:55 PM | R62429 | |
| Carbonate (As CaCO3) | ND | 2.000 | | mg/L Ca | 1 | 8/26/2019 3:54:55 PM | R62429 | |
| Total Alkalinity (as CaCO3) | 875.1 | 20.00 | | mg/L Ca | 1 | 8/26/2019 3:54:55 PM | R62429 | |
| SM2540C MOD: TOTAL DISSOLVED SOLIDS | SM2540C MOD: TOTAL DISSOLVED SOLIDS Analyst | | | | t: JMT | | | |
| Total Dissolved Solids | 2840 | 40.0 | *D | mg/L | 1 | 8/29/2019 8:45:00 AM | 47078 | |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-13

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 9:10:00 AM

Lab ID: 1908D80-002D Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID | | |
|-------------------------------------|--------|--------|------------|----|----------------------|------------------|--|--|
| EPA METHOD 7470: MERCURY | | | | | Analyst: rde | | | |
| Mercury | ND | 0.0010 | mg/L | 5 | 9/6/2019 5:13:52 PM | 47323 | | |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | Analyst: bcv | | | |
| Arsenic | ND | 0.020 | mg/L | 1 | 8/27/2019 1:02:01 PM | <i>I</i> I 47018 | | |
| Barium | 0.026 | 0.020 | mg/L | 1 | 8/27/2019 12:34:43 F | M 47018 | | |
| Cadmium | ND | 0.0020 | mg/L | 1 | 8/27/2019 12:34:43 F | M 47018 | | |
| Chromium | 0.011 | 0.0060 | mg/L | 1 | 8/27/2019 12:34:43 F | M 47018 | | |
| Lead | ND | 0.0050 | mg/L | 1 | 8/27/2019 12:34:43 F | M 47018 | | |
| Selenium | ND | 0.050 | mg/L | 1 | 8/27/2019 12:34:43 F | M 47018 | | |
| Silver | ND | 0.0050 | mg/L | 1 | 8/27/2019 12:34:43 F | M 47018 | | |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-13

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/21/2019 9:10:00 AM

Lab ID: 1908D80-002E Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|---------|------------|----|----------------------|----------------|
| EPA METHOD 7470: MERCURY | | | | | Analys | st: rde |
| Mercury | ND | 0.00020 | mg/L | 1 | 9/10/2019 5:59:37 PM | 47378 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | Analys | st: bcv |
| Arsenic | ND | 0.020 | mg/L | 1 | 9/9/2019 8:58:18 AM | A62764 |
| Barium | 0.022 | 0.020 | mg/L | 1 | 9/9/2019 8:58:18 AM | A62764 |
| Cadmium | ND | 0.0020 | mg/L | 1 | 9/9/2019 8:58:18 AM | A62764 |
| Calcium | 270 | 5.0 | mg/L | 5 | 9/9/2019 9:00:15 AM | A62764 |
| Chromium | ND | 0.0060 | mg/L | 1 | 9/9/2019 8:58:18 AM | A62764 |
| Copper | ND | 0.0060 | mg/L | 1 | 9/9/2019 8:58:18 AM | A62764 |
| Iron | ND | 0.020 | mg/L | 1 | 9/9/2019 8:58:18 AM | A62764 |
| Lead | ND | 0.0050 | mg/L | 1 | 9/9/2019 8:58:18 AM | A62764 |
| Magnesium | 96 | 1.0 | mg/L | 1 | 9/9/2019 8:58:18 AM | A62764 |
| Manganese | 1.5 | 0.010 | mg/L | 5 | 9/9/2019 9:00:15 AM | A62764 |
| Potassium | 3.8 | 1.0 | mg/L | 1 | 9/9/2019 8:58:18 AM | A62764 |
| Selenium | ND | 0.050 | mg/L | 1 | 9/9/2019 8:58:18 AM | A62764 |
| Silver | ND | 0.0050 | mg/L | 1 | 9/9/2019 8:58:18 AM | A62764 |
| Sodium | 530 | 10 | mg/L | 10 | 9/9/2019 12:01:25 PM | A62764 |
| Uranium | ND | 0.10 | mg/L | 1 | 9/9/2019 8:58:18 AM | A62764 |
| Zinc | ND | 0.020 | mg/L | 1 | 9/9/2019 8:58:18 AM | A62764 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: Trip Blank

Project: 2019 Annual GW Sampling Event **Collection Date:**

Lab ID: 1908D80-003A Matrix: Aqueous

| Toluene | Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|---|--------------------------------|--------|-----|------------|----|----------------------|----------|
| Toluene | EPA METHOD 8260B: VOLATILES | | | | | Analys | st: RAA |
| Toluene | Benzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Ethylbenzene | Toluene | ND | 1.0 | | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 1,2,4-Trimethylbenzene | Ethylbenzene | ND | 1.0 | | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 1,3,5-Trimethylbenzene | Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 1,3,5-Trimethylbenzene | 1,2,4-Trimethylbenzene | ND | 1.0 | | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 1,2-Dibromoethane (EDB) | 1,3,5-Trimethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Naphthalene | 1,2-Dichloroethane (EDC) | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 1-Methylnaphthalene | 1,2-Dibromoethane (EDB) | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 2-Methylnaphthalene | Naphthalene | ND | 2.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Acetone ND 10 μg/L 1 8/27/2019 1:05:11 PM R62 Bromobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Bromodichloromethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Bromoform ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Bromomethane ND 3.0 μg/L 1 8/27/2019 1:05:11 PM R62 2-Butanone ND 10 μg/L 1 8/27/2019 1:05:11 PM R62 Carbon disulfide ND 10 μg/L 1 8/27/2019 1:05:11 PM R62 Carbon Tetrachloride ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Chloroberzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Chloroberzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Chloroberthane ND 1.0 μg/L 1 <td< td=""><td>1-Methylnaphthalene</td><td>ND</td><td>4.0</td><td>μg/L</td><td>1</td><td>8/27/2019 1:05:11 PM</td><td>R62453</td></td<> | 1-Methylnaphthalene | ND | 4.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Bromobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Bromodichloromethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Bromoform ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Bromomethane ND 3.0 μg/L 1 8/27/2019 1:05:11 PM R62 2-Butanone ND 10 μg/L 1 8/27/2019 1:05:11 PM R62 Carbon disulfide ND 10 μg/L 1 8/27/2019 1:05:11 PM R62 Carbon Tetrachloride ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Chlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Chlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Chlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Chlorotoluene ND 1.0 μg/L 1 | 2-Methylnaphthalene | ND | 4.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Bromodichloromethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 R | Acetone | ND | 10 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Bromoform ND 1.0 | Bromobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Bromomethane | Bromodichloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Bromomethane | Bromoform | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 2-Butanone ND 10 µg/L 1 8/27/2019 1:05:11 PM R62 Carbon disulfide ND 10 µg/L 1 8/27/2019 1:05:11 PM R62 Carbon Tetrachloride ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 Chlorobenzene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 Chloroform ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 Chloroform ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 Chlorotoluene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 2-Chlorotoluene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 4-Chlorotoluene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 4-Chlorotoluene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 cis-1,2-DCE ND 1.0 µg/L 1 < | Bromomethane | ND | 3.0 | | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Carbon Tetrachloride ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Chlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Chloroethane ND 2.0 μg/L 1 8/27/2019 1:05:11 PM R62 Chloroform ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Chlorotoluene ND 3.0 μg/L 1 8/27/2019 1:05:11 PM R62 2-Chlorotoluene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 4-Chlorotoluene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 4-Chlorotoluene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 4-Chlorotoluene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 4-Chlorotoluene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 cis-1,2-DCE ND 1.0 μg/L 1 | 2-Butanone | ND | 10 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Chlorobenzene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 Chloroethane ND 2.0 µg/L 1 8/27/2019 1:05:11 PM R62 Chloroform ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 Chlorotoluene ND 3.0 µg/L 1 8/27/2019 1:05:11 PM R62 2-Chlorotoluene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 4-Chlorotoluene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 4-Chlorotoluene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 4-Chlorotoluene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 cis-1,2-DCE ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dibromo-3-chloropropane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichlorobenzene ND 1.0 µg/L < | Carbon disulfide | ND | 10 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Chloroethane ND 2.0 μg/L 1 8/27/2019 1:05:11 PM R62 Chloroform ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Chloromethane ND 3.0 μg/L 1 8/27/2019 1:05:11 PM R62 2-Chlorotoluene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 4-Chlorotoluene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 cis-1,2-DCE ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 cis-1,3-Dichloropropene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dibromo-3-chloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dibromo-3-chloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichloromethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichlorobenzene ND 1.0 | Carbon Tetrachloride | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Chloroform ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 Chloromethane ND 3.0 µg/L 1 8/27/2019 1:05:11 PM R62 2-Chlorotoluene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 4-Chlorotoluene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 cis-1,2-DCE ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 cis-1,3-Dichloropropene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dibromo-3-chloropropane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dibromo-3-chloropropane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dibromo-3-chloropropane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichloromethane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,4-Dichlorobenzene ND <td< td=""><td>Chlorobenzene</td><td>ND</td><td>1.0</td><td>μg/L</td><td>1</td><td>8/27/2019 1:05:11 PM</td><td>R62453</td></td<> | Chlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Chloromethane ND 3.0 µg/L 1 8/27/2019 1:05:11 PM R62 2-Chlorotoluene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 4-Chlorotoluene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 cis-1,2-DCE ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 cis-1,3-Dichloropropene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dibromo-3-chloropropane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dibromo-3-chloropropane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dibromo-3-chloropropane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dibromo-3-chloropropane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichlorobertene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloroethane ND< | Chloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 2-Chlorotoluene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 4-Chlorotoluene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 cis-1,2-DCE ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 cis-1,3-Dichloropropene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dibromo-3-chloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Dibromochloromethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Dibromomethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloroethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichlo | Chloroform | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 4-Chlorotoluene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 cis-1,2-DCE ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 cis-1,3-Dichloropropene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dibromo-3-chloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Dibromochloromethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Dibromomethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,4-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloroethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Di | Chloromethane | ND | 3.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| cis-1,2-DCE ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 cis-1,3-Dichloropropene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dibromo-3-chloropropane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 Dibromochloromethane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 Dibromomethane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichlorobenzene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichlorobenzene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,4-Dichlorobenzene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloroethane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichloropropane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 2,2-Dichloropropane ND < | 2-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| cis-1,3-Dichloropropene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dibromo-3-chloropropane ND 2.0 µg/L 1 8/27/2019 1:05:11 PM R62 Dibromochloromethane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 Dibromomethane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichlorobenzene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichlorobenzene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,4-Dichlorobenzene ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 Dichlorodifluoromethane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloroethane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichloropropane ND 1.0 µg/L 1 8/27/2019 1:05:11 PM R62 2,2-Dichloropropane ND <td>4-Chlorotoluene</td> <td>ND</td> <td>1.0</td> <td>μg/L</td> <td>1</td> <td>8/27/2019 1:05:11 PM</td> <td>R62453</td> | 4-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 1,2-Dibromo-3-chloropropane ND 2.0 μg/L 1 8/27/2019 1:05:11 PM R62 Dibromochloromethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Dibromomethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,4-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Dichlorodifluoromethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloroethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 2,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 | cis-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Dibromochloromethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Dibromomethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,4-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Dichlorodifluoromethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloroethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 2,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropane ND | cis-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Dibromomethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,4-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Dichlorodifluoromethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloroethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 2,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropane ND < | 1,2-Dibromo-3-chloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 1,2-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,4-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Dichlorodifluoromethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloroethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 2,2-Dichloropropane ND 2.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 <t< td=""><td>Dibromochloromethane</td><td>ND</td><td>1.0</td><td>μg/L</td><td>1</td><td>8/27/2019 1:05:11 PM</td><td>R62453</td></t<> | Dibromochloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 1,3-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,4-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Dichlorodifluoromethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloroethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 2,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 <t< td=""><td>Dibromomethane</td><td>ND</td><td>1.0</td><td>μg/L</td><td>1</td><td>8/27/2019 1:05:11 PM</td><td>R62453</td></t<> | Dibromomethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 1,4-Dichlorobenzene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 Dichlorodifluoromethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloroethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloroethene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 2,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropane ND 2.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 | 1,2-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Dichlorodifluoromethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloroethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloroethene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 2,2-Dichloropropane ND 2.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 | 1,3-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 1,1-Dichloroethane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloroethene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 2,2-Dichloropropane ND 2.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 | 1,4-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 1,1-Dichloroethene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 2,2-Dichloropropane ND 2.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 | Dichlorodifluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 1,2-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,3-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 2,2-Dichloropropane ND 2.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 | 1,1-Dichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 1,3-Dichloropropane ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 2,2-Dichloropropane ND 2.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 | 1,1-Dichloroethene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 2,2-Dichloropropane ND 2.0 μg/L 1 8/27/2019 1:05:11 PM R62 1,1-Dichloropropene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 | 1,2-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| 1,1-Dichloropropene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 | 1,3-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| | 2,2-Dichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| Hexachlorobutadiene ND 1.0 μg/L 1 8/27/2019 1:05:11 PM R62 | 1,1-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |
| | Hexachlorobutadiene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | R62453 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: Trip Blank

Project: 2019 Annual GW Sampling Event **Collection Date:**

Lab ID: 1908D80-003A Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|-----------------------------|--------|--------|------------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | Analy | st: RAA |
| 2-Hexanone | ND | 10 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| Isopropylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| 4-Isopropyltoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| 4-Methyl-2-pentanone | ND | 10 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| Methylene Chloride | ND | 3.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| n-Butylbenzene | ND | 3.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| n-Propylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| sec-Butylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| Styrene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| tert-Butylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| Tetrachloroethene (PCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| trans-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| trans-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| 1,2,3-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| 1,2,4-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| 1,1,1-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| 1,1,2-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| Trichloroethene (TCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| Trichlorofluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| 1,2,3-Trichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| Vinyl chloride | ND | 1.0 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| Surr: 1,2-Dichloroethane-d4 | 97.1 | 70-130 | %Rec | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| Surr: 4-Bromofluorobenzene | 97.3 | 70-130 | %Rec | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| Surr: Dibromofluoromethane | 100 | 70-130 | %Rec | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |
| Surr: Toluene-d8 | 103 | 70-130 | %Rec | 1 | 8/27/2019 1:05:11 PM | 1 R62453 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-34

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 1:15:00 PM

Lab ID: 1908D80-004A **Matrix:** Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|----------------------------------|--------|--------|------------|----|----------------------|---------------|
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analys | t: RAA |
| Gasoline Range Organics (GRO) | 1.3 | 0.050 | mg/L | 1 | 8/27/2019 1:34:10 PM | GW6245 |
| Surr: BFB | 95.4 | 70-130 | %Rec | 1 | 8/27/2019 1:34:10 PM | GW6245 |
| EPA METHOD 8260B: VOLATILES | | | | | Analys | t: RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Toluene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,3,5-Trimethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Naphthalene | ND | 2.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1-Methylnaphthalene | ND | 4.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 2-Methylnaphthalene | ND | 4.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Acetone | ND | 10 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Bromobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Bromodichloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Bromoform | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Bromomethane | ND | 3.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 2-Butanone | ND | 10 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Carbon disulfide | ND | 10 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Carbon Tetrachloride | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Chlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Chloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Chloroform | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Chloromethane | ND | 3.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 2-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 4-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| cis-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| cis-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Dibromochloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Dibromomethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,2-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,3-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,4-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Dichlorodifluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,1-Dichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,1-Dichloroethene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,2-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
 - 8 % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-34

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 1:15:00 PM

Lab ID: 1908D80-004A Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|-----------------------------|--------|--------|------------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | Analys | st: RAA |
| 1,3-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 2,2-Dichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,1-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Hexachlorobutadiene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 2-Hexanone | ND | 10 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Isopropylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 4-Isopropyltoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 4-Methyl-2-pentanone | ND | 10 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Methylene Chloride | ND | 3.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| n-Butylbenzene | ND | 3.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| n-Propylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| sec-Butylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Styrene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| tert-Butylbenzene | 1.4 | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Tetrachloroethene (PCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| trans-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| trans-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,2,3-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,2,4-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,1,1-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,1,2-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Trichloroethene (TCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Trichlorofluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| 1,2,3-Trichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Vinyl chloride | ND | 1.0 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Surr: 1,2-Dichloroethane-d4 | 95.1 | 70-130 | %Rec | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Surr: 4-Bromofluorobenzene | 89.5 | 70-130 | %Rec | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Surr: Dibromofluoromethane | 97.1 | 70-130 | %Rec | 1 | 8/27/2019 1:34:10 PM | R62453 |
| Surr: Toluene-d8 | 101 | 70-130 | %Rec | 1 | 8/27/2019 1:34:10 PM | R62453 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-34

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/21/2019 1:15:00 PM

Lab ID: 1908D80-004B Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|----------|------------|----|---------------------|-----------------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Anal | yst: JME |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 8/28/2019 9:02:39 P | PM 47076 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 8/28/2019 9:02:39 P | PM 47076 |
| Surr: DNOP | 114 | 52.7-168 | %Rec | 1 | 8/28/2019 9:02:39 P | PM 47076 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

9/16/2019

Hall Environmental Analysis Laboratory, Inc.

Date Reported:

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-34

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/21/2019 1:15:00 PM

Lab ID: 1908D80-004C Matrix: Aqueous

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed I | Batch ID |
|-------------------------------------|--------|-------|------|---------|----|-----------------------|----------|
| CARBON DIOXIDE | | | | | | Analyst | : JRR |
| Total Carbon Dioxide | 1100 | 1.0 | Н | mg CO2/ | 1 | 8/26/2019 4:27:01 PM | R62429 |
| EPA METHOD 300.0: ANIONS | | | | | | Analyst | MRA |
| Fluoride | 0.64 | 0.50 | | mg/L | 5 | 8/23/2019 11:28:49 AM | R62406 |
| Chloride | 250 | 10 | * | mg/L | 20 | 8/23/2019 11:41:40 AM | R62406 |
| Nitrogen, Nitrite (As N) | ND | 0.50 | | mg/L | 5 | 8/23/2019 11:28:49 AM | R62406 |
| Bromide | 3.4 | 0.50 | | mg/L | 5 | 8/23/2019 11:28:49 AM | R62406 |
| Nitrogen, Nitrate (As N) | ND | 0.50 | | mg/L | 5 | 8/23/2019 11:28:49 AM | R62406 |
| Phosphorus, Orthophosphate (As P) | ND | 2.5 | | mg/L | 5 | 8/23/2019 11:28:49 AM | R62406 |
| Sulfate | 77 | 2.5 | | mg/L | 5 | 8/23/2019 11:28:49 AM | R62406 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | Analyst | : JRR |
| Conductivity | 2800 | 5.0 | | µmhos/c | 1 | 8/26/2019 4:27:01 PM | R62429 |
| SM2320B: ALKALINITY | | | | | | Analyst | : JRR |
| Bicarbonate (As CaCO3) | 1152 | 20.00 | | mg/L Ca | 1 | 8/26/2019 4:27:01 PM | R62429 |
| Carbonate (As CaCO3) | ND | 2.000 | | mg/L Ca | 1 | 8/26/2019 4:27:01 PM | R62429 |
| Total Alkalinity (as CaCO3) | 1152 | 20.00 | | mg/L Ca | 1 | 8/26/2019 4:27:01 PM | R62429 |
| SM2540C MOD: TOTAL DISSOLVED SOLIDS | | | | | | Analyst | : JMT |
| Total Dissolved Solids | 1860 | 100 | *D | mg/L | 1 | 8/29/2019 8:45:00 AM | 47078 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-34

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/21/2019 1:15:00 PM

Lab ID: 1908D80-004D Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID | | |
|-------------------------------------|--------|---------|------------|----|----------------------|----------------|--|--|
| EPA METHOD 7470: MERCURY | | | | | Analyst: rde | | | |
| Mercury | ND | 0.00020 | mg/L | 1 | 9/6/2019 4:58:04 PM | 47323 | | |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | Analy | st: bcv | | |
| Arsenic | ND | 0.020 | mg/L | 1 | 8/27/2019 1:00:20 PM | M 47018 | | |
| Barium | 0.17 | 0.020 | mg/L | 1 | 8/27/2019 12:36:43 F | PM 47018 | | |
| Cadmium | ND | 0.0020 | mg/L | 1 | 8/27/2019 12:36:43 F | PM 47018 | | |
| Chromium | ND | 0.0060 | mg/L | 1 | 8/27/2019 12:36:43 F | PM 47018 | | |
| Lead | 0.0087 | 0.0050 | mg/L | 1 | 8/27/2019 12:36:43 F | PM 47018 | | |
| Selenium | ND | 0.050 | mg/L | 1 | 8/27/2019 12:36:43 F | PM 47018 | | |
| Silver | ND | 0.0050 | mg/L | 1 | 8/27/2019 12:36:43 F | PM 47018 | | |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported:

Lab Order: **1908D80**

9/16/2019

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc.

CLIENT:

Client Sample ID: MW-34

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/21/2019 1:15:00 PM

Lab ID: 1908D80-004E Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|---------|------------|----|----------------------|---------------|
| EPA METHOD 7470: MERCURY | | | | | Analys | t: rde |
| Mercury | ND | 0.00020 | mg/L | 1 | 9/10/2019 6:01:54 PM | 47378 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | Analys | t: bcv |
| Arsenic | 0.027 | 0.020 | mg/L | 1 | 9/9/2019 9:02:06 AM | A62764 |
| Barium | 0.14 | 0.020 | mg/L | 1 | 9/9/2019 9:02:06 AM | A62764 |
| Cadmium | ND | 0.0020 | mg/L | 1 | 9/9/2019 9:02:06 AM | A62764 |
| Calcium | 140 | 5.0 | mg/L | 5 | 9/9/2019 9:03:48 AM | A62764 |
| Chromium | ND | 0.0060 | mg/L | 1 | 9/9/2019 9:02:06 AM | A62764 |
| Copper | ND | 0.0060 | mg/L | 1 | 9/9/2019 9:02:06 AM | A62764 |
| Iron | 2.5 | 0.10 | mg/L | 5 | 9/9/2019 9:03:48 AM | A62764 |
| Lead | ND | 0.0050 | mg/L | 1 | 9/9/2019 9:02:06 AM | A62764 |
| Magnesium | 23 | 1.0 | mg/L | 1 | 9/9/2019 9:02:06 AM | A62764 |
| Manganese | 3.6 | 0.010 | mg/L | 5 | 9/9/2019 9:03:48 AM | A62764 |
| Potassium | 1.3 | 1.0 | mg/L | 1 | 9/9/2019 9:02:06 AM | A62764 |
| Selenium | ND | 0.050 | mg/L | 1 | 9/9/2019 9:02:06 AM | A62764 |
| Silver | ND | 0.0050 | mg/L | 1 | 9/9/2019 9:02:06 AM | A62764 |
| Sodium | 490 | 10 | mg/L | 10 | 9/9/2019 12:03:17 PM | A62764 |
| Uranium | ND | 0.10 | mg/L | 1 | 9/9/2019 9:02:06 AM | A62764 |
| Zinc | ND | 0.020 | mg/L | 1 | 9/9/2019 9:02:06 AM | A62764 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: Field Blank #1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 2:10:00 PM

Lab ID: 1908D80-005A Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|----------------------------------|--------|--------|------------|----|----------------------|----------|
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analys | st: RAA |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 8/27/2019 2:03:09 PM | GW6245 |
| Surr: BFB | 98.9 | 70-130 | %Rec | 1 | 8/27/2019 2:03:09 PM | GW6245 |
| EPA METHOD 8260B: VOLATILES | | | | | Analys | st: RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Toluene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | |
| 1,2,4-Trimethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | |
| 1,3,5-Trimethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | |
| Naphthalene | ND | 2.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1-Methylnaphthalene | ND | 4.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 2-Methylnaphthalene | ND | 4.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Acetone | ND | 10 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Bromobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Bromodichloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Bromoform | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Bromomethane | ND | 3.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 2-Butanone | ND | 10 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Carbon disulfide | ND | 10 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Carbon Tetrachloride | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Chlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Chloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Chloroform | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Chloromethane | ND | 3.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 2-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 4-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| cis-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| cis-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Dibromochloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Dibromomethane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1,2-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1,3-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1,4-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Dichlorodifluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1,1-Dichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1,1-Dichloroethene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1,2-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: Field Blank #1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 2:10:00 PM

Lab ID: 1908D80-005A Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|-----------------------------|--------|--------|------------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | Analy | st: RAA |
| 1,3-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 2,2-Dichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1,1-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Hexachlorobutadiene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 2-Hexanone | ND | 10 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Isopropylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 4-Isopropyltoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 4-Methyl-2-pentanone | ND | 10 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Methylene Chloride | ND | 3.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| n-Butylbenzene | ND | 3.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| n-Propylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| sec-Butylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Styrene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| tert-Butylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Tetrachloroethene (PCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| trans-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| trans-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1,2,3-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1,2,4-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1,1,1-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1,1,2-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Trichloroethene (TCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Trichlorofluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| 1,2,3-Trichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Vinyl chloride | ND | 1.0 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Surr: 1,2-Dichloroethane-d4 | 101 | 70-130 | %Rec | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Surr: 4-Bromofluorobenzene | 100 | 70-130 | %Rec | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Surr: Dibromofluoromethane | 102 | 70-130 | %Rec | 1 | 8/27/2019 2:03:09 PM | R62453 |
| Surr: Toluene-d8 | 101 | 70-130 | %Rec | 1 | 8/27/2019 2:03:09 PM | R62453 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
 - S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: Field Blank #1

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/21/2019 2:10:00 PM

Lab ID: 1908D80-005B Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|----------|------------|----|---------------------|------------------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Ana | lyst: JME |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 8/28/2019 9:27:27 F | PM 47076 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 8/28/2019 9:27:27 F | PM 47076 |
| Surr: DNOP | 99.8 | 52.7-168 | %Rec | 1 | 8/28/2019 9:27:27 F | PM 47076 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: Field Blank #1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 2:10:00 PM

Lab ID: 1908D80-005C Matrix: Aqueous

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed I | Batch ID |
|-------------------------------------|--------|-------|------|---------|----|-----------------------|----------|
| CARBON DIOXIDE | | | | | | Analyst | : JRR |
| Total Carbon Dioxide | 10 | 1.0 | Н | mg CO2/ | 1 | 8/26/2019 5:06:04 PM | R62429 |
| EPA METHOD 300.0: ANIONS | | | | | | Analyst | : MRA |
| Fluoride | ND | 0.10 | | mg/L | 1 | 8/23/2019 11:54:32 AM | R62406 |
| Chloride | ND | 0.50 | | mg/L | 1 | 8/23/2019 11:54:32 AM | R62406 |
| Nitrogen, Nitrite (As N) | ND | 0.10 | | mg/L | 1 | 8/23/2019 11:54:32 AM | R62406 |
| Bromide | ND | 0.10 | | mg/L | 1 | 8/23/2019 11:54:32 AM | R62406 |
| Nitrogen, Nitrate (As N) | ND | 0.10 | | mg/L | 1 | 8/23/2019 11:54:32 AM | R62406 |
| Phosphorus, Orthophosphate (As P) | ND | 0.50 | | mg/L | 1 | 8/23/2019 11:54:32 AM | R62406 |
| Sulfate | ND | 0.50 | | mg/L | 1 | 8/23/2019 11:54:32 AM | R62406 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | Analyst | : JRR |
| Conductivity | ND | 5.0 | | µmhos/c | 1 | 8/26/2019 5:06:04 PM | R62429 |
| SM2320B: ALKALINITY | | | | | | Analyst | : JRR |
| Bicarbonate (As CaCO3) | ND | 20.00 | | mg/L Ca | 1 | 8/26/2019 5:06:04 PM | R62429 |
| Carbonate (As CaCO3) | ND | 2.000 | | mg/L Ca | 1 | 8/26/2019 5:06:04 PM | R62429 |
| Total Alkalinity (as CaCO3) | ND | 20.00 | | mg/L Ca | 1 | 8/26/2019 5:06:04 PM | R62429 |
| SM2540C MOD: TOTAL DISSOLVED SOLIDS | | | | | | Analyst | : JMT |
| Total Dissolved Solids | ND | 20.0 | | mg/L | 1 | 8/29/2019 8:45:00 AM | 47078 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: Field Blank #1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 2:10:00 PM

Lab ID: 1908D80-005D Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|-------------------------------------|--------|---------|------------|----|---------------------|-----------------|
| EPA METHOD 7470: MERCURY | | | | | Anal | yst: rde |
| Mercury | ND | 0.00020 | mg/L | 1 | 9/6/2019 5:05:00 PM | 47323 |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | Anal | yst: bcv |
| Arsenic | ND | 0.020 | mg/L | 1 | 8/27/2019 12:54:33 | PM 47018 |
| Barium | ND | 0.020 | mg/L | 1 | 8/27/2019 12:38:31 | PM 47018 |
| Cadmium | ND | 0.0020 | mg/L | 1 | 8/27/2019 12:38:31 | PM 47018 |
| Chromium | ND | 0.0060 | mg/L | 1 | 8/27/2019 12:38:31 | PM 47018 |
| Lead | ND | 0.0050 | mg/L | 1 | 8/27/2019 12:38:31 | PM 47018 |
| Selenium | ND | 0.050 | mg/L | 1 | 8/27/2019 12:38:31 | PM 47018 |
| Silver | ND | 0.0050 | mg/L | 1 | 8/27/2019 12:38:31 | PM 47018 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: Field Blank #1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 2:10:00 PM

Lab ID: 1908D80-005E Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|---------|------------|----|----------------------|----------------|
| EPA METHOD 7470: MERCURY | | | | | Analys | st: rde |
| Mercury | ND | 0.00020 | mg/L | 1 | 9/10/2019 6:04:12 PM | 47378 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | Analys | st: bcv |
| Arsenic | ND | 0.020 | mg/L | 1 | 9/9/2019 12:05:11 PM | A62764 |
| Barium | ND | 0.020 | mg/L | 1 | 9/9/2019 9:11:16 AM | A62764 |
| Cadmium | ND | 0.0020 | mg/L | 1 | 9/9/2019 9:11:16 AM | A62764 |
| Calcium | ND | 1.0 | mg/L | 1 | 9/9/2019 9:11:16 AM | A62764 |
| Chromium | ND | 0.0060 | mg/L | 1 | 9/9/2019 9:11:16 AM | A62764 |
| Copper | ND | 0.0060 | mg/L | 1 | 9/9/2019 9:11:16 AM | A62764 |
| Iron | ND | 0.020 | mg/L | 1 | 9/9/2019 9:11:16 AM | A62764 |
| Lead | ND | 0.0050 | mg/L | 1 | 9/9/2019 9:11:16 AM | A62764 |
| Magnesium | ND | 1.0 | mg/L | 1 | 9/9/2019 9:11:16 AM | A62764 |
| Manganese | ND | 0.0020 | mg/L | 1 | 9/9/2019 9:11:16 AM | A62764 |
| Potassium | ND | 1.0 | mg/L | 1 | 9/9/2019 9:11:16 AM | A62764 |
| Selenium | ND | 0.050 | mg/L | 1 | 9/9/2019 9:11:16 AM | A62764 |
| Silver | ND | 0.0050 | mg/L | 1 | 9/9/2019 9:11:16 AM | A62764 |
| Sodium | ND | 1.0 | mg/L | 1 | 9/9/2019 9:11:16 AM | A62764 |
| Uranium | ND | 0.10 | mg/L | 1 | 9/9/2019 9:11:16 AM | A62764 |
| Zinc | 0.025 | 0.020 | mg/L | 1 | 9/9/2019 9:11:16 AM | A62764 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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- S % Recovery outside of range due to dilution or matrix

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: Field Blank #1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 2:10:00 PM

Lab ID: 1908D80-005F Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID | | |
|---------------------------------|--------|----|------------|----|----------------------|----------|--|--|
| EPA METHOD 8270C: SEMIVOLATILES | | | | | Analyst: DA l | | | |
| Acenaphthene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | l 47026 | | |
| Acenaphthylene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | | | |
| Aniline | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | | | |
| Anthracene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | | | |
| Azobenzene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | | | |
| Benz(a)anthracene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | | | |
| Benzo(a)pyrene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | | | |
| Benzo(b)fluoranthene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | | | |
| Benzo(g,h,i)perylene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | | | |
| Benzo(k)fluoranthene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Benzoic acid | ND | 20 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Benzyl alcohol | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Bis(2-chloroethoxy)methane | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Bis(2-chloroethyl)ether | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Bis(2-chloroisopropyl)ether | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | | | |
| Bis(2-ethylhexyl)phthalate | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 4-Bromophenyl phenyl ether | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Butyl benzyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Carbazole | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 4-Chloro-3-methylphenol | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 4-Chloroaniline | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 2-Chloronaphthalene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | l 47026 | | |
| 2-Chlorophenol | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | l 47026 | | |
| 4-Chlorophenyl phenyl ether | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | l 47026 | | |
| Chrysene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Di-n-butyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Di-n-octyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Dibenz(a,h)anthracene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Dibenzofuran | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 1,2-Dichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 1,3-Dichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 1,4-Dichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 3,3´-Dichlorobenzidine | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Diethyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Dimethyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 2,4-Dichlorophenol | ND | 20 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 2,4-Dimethylphenol | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 4,6-Dinitro-2-methylphenol | ND | 20 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 2,4-Dinitrophenol | ND | 20 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 2,4-Dinitrotoluene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 2,6-Dinitrotoluene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: Field Blank #1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 2:10:00 PM

Lab ID: 1908D80-005F Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID | | |
|---------------------------------|--------|----------|------------|----|----------------------|----------|--|--|
| EPA METHOD 8270C: SEMIVOLATILES | | | | | Analyst: DAM | | | |
| Fluoranthene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Fluorene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| Hexachlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| Hexachlorobutadiene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| Hexachlorocyclopentadiene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| Hexachloroethane | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| Indeno(1,2,3-cd)pyrene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Isophorone | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 1-Methylnaphthalene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 2-Methylnaphthalene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| 2-Methylphenol | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| 3+4-Methylphenol | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| N-Nitrosodi-n-propylamine | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| N-Nitrosodimethylamine | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| N-Nitrosodiphenylamine | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Naphthalene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| 2-Nitroaniline | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| 3-Nitroaniline | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| 4-Nitroaniline | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Nitrobenzene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| 2-Nitrophenol | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 4-Nitrophenol | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| Pentachlorophenol | ND | 20 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| Phenanthrene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |
| Phenol | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | l 47026 | | |
| Pyrene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | l 47026 | | |
| Pyridine | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | l 47026 | | |
| 1,2,4-Trichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 2,4,5-Trichlorophenol | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| 2,4,6-Trichlorophenol | ND | 10 | μg/L | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Surr: 2-Fluorophenol | 56.7 | 15-101 | %Rec | 1 | 8/29/2019 6:53:46 PM | l 47026 | | |
| Surr: Phenol-d5 | 41.4 | 15-84.6 | %Rec | 1 | 8/29/2019 6:53:46 PM | l 47026 | | |
| Surr: 2,4,6-Tribromophenol | 60.3 | 27.8-112 | %Rec | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Surr: Nitrobenzene-d5 | 79.1 | 33-113 | %Rec | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Surr: 2-Fluorobiphenyl | 65.1 | 26.6-107 | %Rec | 1 | 8/29/2019 6:53:46 PM | 47026 | | |
| Surr: 4-Terphenyl-d14 | 64.6 | 18.7-148 | %Rec | 1 | 8/29/2019 6:53:46 PM | 1 47026 | | |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
 - S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported: 9/16/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-11

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 2:40:00 PM

Lab ID: 1908D80-006A Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|---|----------|--------|--------------|----|--|----------|
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analys | st: RAA |
| Gasoline Range Organics (GRO) | 2.4 | 0.050 | mg/L | 1 | 8/27/2019 2:32:10 PM | GW6245 |
| Surr: BFB | 101 | 70-130 | %Rec | 1 | 8/27/2019 2:32:10 PM | |
| EPA METHOD 8260B: VOLATILES | | | | | Analys | st: RAA |
| Benzene | 8.0 | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| Toluene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| 1,2,4-Trimethylbenzene | 110 | 10 | μg/L | 10 | 8/28/2019 3:34:21 PM | |
| 1,3,5-Trimethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| Naphthalene | 99 | 20 | μg/L | 10 | 8/28/2019 3:34:21 PM | |
| 1-Methylnaphthalene | 18 | 4.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| 2-Methylnaphthalene | 28 | 4.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| Acetone | ND | 10 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| Bromobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| Bromodichloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| Bromoform | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| Bromomethane | ND | 3.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| 2-Butanone | ND | 10 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| Carbon disulfide | ND | 10 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| Carbon Tetrachloride | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| Chlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| Chloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| Chloroform | ND | 1.0 | | 1 | 8/27/2019 2:32:10 PM | |
| Chloromethane | ND | 3.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| 2-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| 4-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| cis-1,2-DCE | ND | 1.0 | μg/L μg/L | 1 | 8/27/2019 2:32:10 PM | |
| cis-1,3-DGE cis-1,3-Dichloropropene | ND ND | 1.0 | | 1 | 8/27/2019 2:32:10 PM | |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| Dibromochloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| | ND ND | | μg/L | 1 | | |
| Dibromomethane | | 1.0 | μg/L | | 8/27/2019 2:32:10 PM | |
| 1,2-Dichlorobenzene 1,3-Dichlorobenzene | ND ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM 8/27/2019 2:32:10 PM | |
| · | ND ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| 1,4-Dichlorobenzene Dichlorodifluoromethane | ND ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| 1,1-Dichloroethane | | 1.0 | μg/L | 1 | | |
| • | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| 1,1-Dichloroethene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | |
| 1,2-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
 - 8 % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-11

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 2:40:00 PM

Lab ID: 1908D80-006A Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|-----------------------------|--------|--------|------------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | Analy | st: RAA |
| 1,3-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| 2,2-Dichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| 1,1-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| Hexachlorobutadiene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| 2-Hexanone | ND | 10 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| Isopropylbenzene | 81 | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| 4-Isopropyltoluene | 3.0 | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| 4-Methyl-2-pentanone | ND | 10 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| Methylene Chloride | ND | 3.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| n-Butylbenzene | 3.3 | 3.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| n-Propylbenzene | 86 | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| sec-Butylbenzene | 13 | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| Styrene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| tert-Butylbenzene | 2.5 | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| Tetrachloroethene (PCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| trans-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| trans-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| 1,2,3-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| 1,2,4-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| 1,1,1-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| 1,1,2-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| Trichloroethene (TCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| Trichlorofluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| 1,2,3-Trichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| Vinyl chloride | ND | 1.0 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 8/27/2019 2:32:10 PM | R62453 |
| Surr: 1,2-Dichloroethane-d4 | 110 | 70-130 | %Rec | 1 | 8/27/2019 2:32:10 PM | R62453 |
| Surr: 4-Bromofluorobenzene | 105 | 70-130 | %Rec | 1 | 8/27/2019 2:32:10 PM | R62453 |
| Surr: Dibromofluoromethane | 100 | 70-130 | %Rec | 1 | 8/27/2019 2:32:10 PM | R62453 |
| Surr: Toluene-d8 | 105 | 70-130 | %Rec | 1 | 8/27/2019 2:32:10 PM | R62453 |

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

9/16/2019

Hall Environmental Analysis Laboratory, Inc.

Date Reported:

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-11

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/21/2019 2:40:00 PM

Lab ID: 1908D80-006B Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|----------|------------|----|---------------------|-----------------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Anal | yst: JME |
| Diesel Range Organics (DRO) | 0.52 | 0.40 | mg/L | 1 | 8/28/2019 9:52:13 P | PM 47076 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 8/28/2019 9:52:13 P | PM 47076 |
| Surr: DNOP | 111 | 52.7-168 | %Rec | 1 | 8/28/2019 9:52:13 P | PM 47076 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-11

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 2:40:00 PM

Lab ID: 1908D80-006C Matrix: Aqueous

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed B | Batch ID |
|-------------------------------------|--------|-------|------|---------|-----|-----------------------|----------|
| CARBON DIOXIDE | | | | | | Analyst | JRR |
| Total Carbon Dioxide | 970 | 2.5 | Н | mg CO2/ | 2.5 | 8/28/2019 11:58:41 PM | R62496 |
| EPA METHOD 300.0: ANIONS | | | | | | Analyst | MRA |
| Fluoride | ND | 0.50 | | mg/L | 5 | 8/23/2019 12:20:15 PM | R62406 |
| Chloride | 240 | 10 | | mg/L | 20 | 8/23/2019 12:33:08 PM | R62406 |
| Nitrogen, Nitrite (As N) | ND | 0.50 | | mg/L | 5 | 8/23/2019 12:20:15 PM | R62406 |
| Bromide | 3.8 | 0.50 | | mg/L | 5 | 8/23/2019 12:20:15 PM | R62406 |
| Nitrogen, Nitrate (As N) | ND | 0.50 | | mg/L | 5 | 8/23/2019 12:20:15 PM | R62406 |
| Phosphorus, Orthophosphate (As P) | ND | 2.5 | | mg/L | 5 | 8/23/2019 12:20:15 PM | R62406 |
| Sulfate | 6.9 | 2.5 | | mg/L | 5 | 8/23/2019 12:20:15 PM | R62406 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | Analyst | JRR |
| Conductivity | 2800 | 5.0 | | µmhos/c | 1 | 8/26/2019 5:12:04 PM | R62429 |
| SM2320B: ALKALINITY | | | | | | Analyst | JRR |
| Bicarbonate (As CaCO3) | 1084 | 50.00 | | mg/L Ca | 2.5 | 8/28/2019 11:58:41 PM | R62496 |
| Carbonate (As CaCO3) | ND | 5.000 | | mg/L Ca | 2.5 | 8/28/2019 11:58:41 PM | R62496 |
| Total Alkalinity (as CaCO3) | 1084 | 50.00 | | mg/L Ca | 2.5 | 8/28/2019 11:58:41 PM | R62496 |
| SM2540C MOD: TOTAL DISSOLVED SOLIDS | | | | | | Analyst | JMT |
| Total Dissolved Solids | 1820 | 100 | *D | mg/L | 1 | 8/29/2019 8:45:00 AM | 47078 |

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- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-11

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/21/2019 2:40:00 PM

Lab ID: 1908D80-006D Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|-------------------------------------|--------|---------|------------|----|----------------------|-----------------|
| EPA METHOD 7470: MERCURY | | | | | Analy | /st: rde |
| Mercury | ND | 0.00020 | mg/L | 1 | 9/6/2019 5:07:19 PM | 47323 |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | Analy | /st: bcv |
| Arsenic | ND | 0.020 | mg/L | 1 | 8/27/2019 12:58:30 F | PM 47018 |
| Barium | 0.99 | 0.020 | mg/L | 1 | 8/27/2019 12:40:36 F | PM 47018 |
| Cadmium | ND | 0.0020 | mg/L | 1 | 8/27/2019 12:40:36 F | PM 47018 |
| Chromium | ND | 0.0060 | mg/L | 1 | 8/27/2019 12:40:36 F | PM 47018 |
| Lead | 0.014 | 0.0050 | mg/L | 1 | 8/27/2019 12:40:36 F | PM 47018 |
| Selenium | ND | 0.050 | mg/L | 1 | 8/27/2019 12:40:36 F | PM 47018 |
| Silver | ND | 0.0050 | mg/L | 1 | 8/27/2019 12:40:36 F | PM 47018 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported:

Lab Order: **1908D80**

9/16/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-11

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 2:40:00 PM

Lab ID: 1908D80-006E Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|---------|-------------------|----|-----------------------|----------------|
| EPA METHOD 7470: MERCURY | | | | | Analys | st: rde |
| Mercury | ND | 0.00020 | mg/L | 1 | 9/11/2019 11:01:57 Al | M 47378 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | Analys | st: bcv |
| Arsenic | ND | 0.020 | mg/L | 1 | 9/9/2019 12:07:00 PM | A62764 |
| Barium | 0.97 | 0.020 | mg/L | 1 | 9/9/2019 9:14:58 AM | A62764 |
| Cadmium | ND | 0.0020 | mg/L | 1 | 9/9/2019 9:14:58 AM | A62764 |
| Calcium | 130 | 5.0 | mg/L | 5 | 9/9/2019 9:16:40 AM | A62764 |
| Chromium | ND | 0.0060 | mg/L | 1 | 9/9/2019 9:14:58 AM | A62764 |
| Copper | ND | 0.0060 | mg/L | 1 | 9/9/2019 9:14:58 AM | A62764 |
| Iron | 6.5 | 0.20 | mg/L | 10 | 9/11/2019 12:45:38 Pf | M A62841 |
| Lead | 0.0068 | 0.0050 | mg/L | 1 | 9/9/2019 9:14:58 AM | A62764 |
| Magnesium | 31 | 1.0 | mg/L | 1 | 9/9/2019 9:14:58 AM | A62764 |
| Manganese | 2.2 | 0.010 | mg/L | 5 | 9/9/2019 9:16:40 AM | A62764 |
| Potassium | 1.9 | 1.0 | mg/L | 1 | 9/9/2019 9:14:58 AM | A62764 |
| Selenium | ND | 0.050 | mg/L | 1 | 9/9/2019 9:14:58 AM | A62764 |
| Silver | ND | 0.0050 | mg/L | 1 | 9/9/2019 9:14:58 AM | A62764 |
| Sodium | 490 | 10 | mg/L | 10 | 9/9/2019 12:08:41 PM | A62764 |
| Uranium | ND | 0.10 | mg/L | 1 | 9/9/2019 9:14:58 AM | A62764 |
| Zinc | ND | 0.020 | mg/L | 1 | 9/9/2019 9:14:58 AM | A62764 |

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- D Sample Diluted Due to Matrix
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- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported:

Lab Order: **1908D80**

9/16/2019

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc.

CLIENT:

Client Sample ID: MW-11

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 2:40:00 PM

Lab ID: 1908D80-006F Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|----|------------|----|----------------------|----------------|
| EPA METHOD 8270C: SEMIVOLATILES | | | | | Analys | st: DAM |
| Acenaphthene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Acenaphthylene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Aniline | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Anthracene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Azobenzene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | |
| Benz(a)anthracene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Benzo(a)pyrene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Benzo(b)fluoranthene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Benzo(g,h,i)perylene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Benzo(k)fluoranthene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Benzoic acid | ND | 20 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Benzyl alcohol | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Bis(2-chloroethoxy)methane | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Bis(2-chloroethyl)ether | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Bis(2-chloroisopropyl)ether | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Bis(2-ethylhexyl)phthalate | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 4-Bromophenyl phenyl ether | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Butyl benzyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Carbazole | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 4-Chloro-3-methylphenol | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 4-Chloroaniline | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 2-Chloronaphthalene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 2-Chlorophenol | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 4-Chlorophenyl phenyl ether | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Chrysene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Di-n-butyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Di-n-octyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Dibenz(a,h)anthracene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Dibenzofuran | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 1,2-Dichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 1,3-Dichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 1,4-Dichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 3,3´-Dichlorobenzidine | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Diethyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| Dimethyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 2,4-Dichlorophenol | ND | 20 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 2,4-Dimethylphenol | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 4,6-Dinitro-2-methylphenol | ND | 20 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 2,4-Dinitrophenol | ND | 20 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 2,4-Dinitrotoluene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |
| 2,6-Dinitrotoluene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 |

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- PQL Practical Quanitative Limit
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- E Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-11

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 2:40:00 PM

Lab ID: 1908D80-006F Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID | | |
|---------------------------------|--------|----------|------------|----|----------------------|----------|--|--|
| EPA METHOD 8270C: SEMIVOLATILES | | | | | Analyst: DAM | | | |
| Fluoranthene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Fluorene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Hexachlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Hexachlorobutadiene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Hexachlorocyclopentadiene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Hexachloroethane | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Indeno(1,2,3-cd)pyrene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Isophorone | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| 1-Methylnaphthalene | 34 | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| 2-Methylnaphthalene | 24 | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| 2-Methylphenol | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| 3+4-Methylphenol | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| N-Nitrosodi-n-propylamine | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| N-Nitrosodimethylamine | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| N-Nitrosodiphenylamine | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Naphthalene | 85 | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| 2-Nitroaniline | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| 3-Nitroaniline | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| 4-Nitroaniline | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Nitrobenzene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| 2-Nitrophenol | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| 4-Nitrophenol | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Pentachlorophenol | ND | 20 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Phenanthrene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Phenol | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Pyrene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Pyridine | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| 1,2,4-Trichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| 2,4,5-Trichlorophenol | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| 2,4,6-Trichlorophenol | ND | 10 | μg/L | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Surr: 2-Fluorophenol | 52.6 | 15-101 | %Rec | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Surr: Phenol-d5 | 44.3 | 15-84.6 | %Rec | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Surr: 2,4,6-Tribromophenol | 65.6 | 27.8-112 | %Rec | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Surr: Nitrobenzene-d5 | 82.0 | 33-113 | %Rec | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Surr: 2-Fluorobiphenyl | 73.9 | 26.6-107 | %Rec | 1 | 8/29/2019 7:24:15 PM | 47026 | | |
| Surr: 4-Terphenyl-d14 | 69.6 | 18.7-148 | %Rec | 1 | 8/29/2019 7:24:15 PM | 47026 | | |

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: DUPLICATE #1

Project:2019 Annual GW Sampling EventCollection Date: 8/21/2019Lab ID:1908D80-007AMatrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|----------------------------------|--------|--------|------------|----|----------------------|----------|
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analy | st: RAA |
| Gasoline Range Organics (GRO) | 1.8 | 0.050 | mg/L | 1 | 8/27/2019 3:01:13 PM | 1 GW6245 |
| Surr: BFB | 102 | 70-130 | %Rec | 1 | 8/27/2019 3:01:13 PM | d GW6245 |
| EPA METHOD 8260B: VOLATILES | | | | | Analy | st: RAA |
| Benzene | 7.0 | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Toluene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| 1,2,4-Trimethylbenzene | 93 | 10 | μg/L | 10 | 8/28/2019 4:03:20 PM | 1 R62453 |
| 1,3,5-Trimethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Naphthalene | 92 | 2.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| 1-Methylnaphthalene | 16 | 4.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| 2-Methylnaphthalene | 24 | 4.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Acetone | ND | 10 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Bromobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Bromodichloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Bromoform | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Bromomethane | ND | 3.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| 2-Butanone | ND | 10 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Carbon disulfide | ND | 10 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Carbon Tetrachloride | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Chlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Chloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Chloroform | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Chloromethane | ND | 3.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| 2-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| 4-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| cis-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| cis-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Dibromochloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Dibromomethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| 1,2-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| 1,3-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| 1,4-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| Dichlorodifluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| 1,1-Dichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| 1,1-Dichloroethene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |
| 1,2-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | 1 R62453 |

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- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: DUPLICATE #1

Project:2019 Annual GW Sampling EventCollection Date: 8/21/2019Lab ID:1908D80-007AMatrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|-----------------------------|--------|--------|------------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | Analys | st: RAA |
| 1,3-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| 2,2-Dichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| 1,1-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| Hexachlorobutadiene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| 2-Hexanone | ND | 10 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| Isopropylbenzene | 71 | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| 4-Isopropyltoluene | 2.3 | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| 4-Methyl-2-pentanone | ND | 10 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| Methylene Chloride | ND | 3.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| n-Butylbenzene | ND | 3.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| n-Propylbenzene | 70 | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| sec-Butylbenzene | 10 | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| Styrene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| tert-Butylbenzene | 2.1 | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| Tetrachloroethene (PCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| trans-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| trans-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| 1,2,3-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| 1,2,4-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| 1,1,1-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| 1,1,2-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| Trichloroethene (TCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| Trichlorofluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| 1,2,3-Trichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| Vinyl chloride | ND | 1.0 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 8/27/2019 3:01:13 PM | R62453 |
| Surr: 1,2-Dichloroethane-d4 | 109 | 70-130 | %Rec | 1 | 8/27/2019 3:01:13 PM | R62453 |
| Surr: 4-Bromofluorobenzene | 102 | 70-130 | %Rec | 1 | 8/27/2019 3:01:13 PM | R62453 |
| Surr: Dibromofluoromethane | 112 | 70-130 | %Rec | 1 | 8/27/2019 3:01:13 PM | R62453 |
| Surr: Toluene-d8 | 105 | 70-130 | %Rec | 1 | 8/27/2019 3:01:13 PM | R62453 |

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- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: DUPLICATE #1

Project:2019 Annual GW Sampling EventCollection Date: 8/21/2019Lab ID:1908D80-007BMatrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|----------|------------|----|--------------------|-----------------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Anal | yst: JME |
| Diesel Range Organics (DRO) | 0.53 | 0.40 | mg/L | 1 | 8/28/2019 10:16:49 | PM 47076 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 8/28/2019 10:16:49 | PM 47076 |
| Surr: DNOP | 114 | 52.7-168 | %Rec | 1 | 8/28/2019 10:16:49 | PM 47076 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: DUPLICATE #1

Project:2019 Annual GW Sampling EventCollection Date: 8/21/2019Lab ID:1908D80-007CMatrix: Aqueous

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed B | atch ID |
|-------------------------------------|--------|-------|------|---------|-----|-----------------------|---------|
| CARBON DIOXIDE | | | | | | Analyst: | JRR |
| Total Carbon Dioxide | 960 | 2.5 | Н | mg CO2/ | 2.5 | 8/29/2019 12:16:17 AM | R62496 |
| EPA METHOD 300.0: ANIONS | | | | | | Analyst: | MRA |
| Fluoride | ND | 0.50 | | mg/L | 5 | 8/23/2019 12:45:59 PM | R62406 |
| Chloride | 250 | 10 | * | mg/L | 20 | 8/23/2019 12:58:51 PM | R62406 |
| Nitrogen, Nitrite (As N) | ND | 0.50 | | mg/L | 5 | 8/23/2019 12:45:59 PM | R62406 |
| Bromide | 3.9 | 0.50 | | mg/L | 5 | 8/23/2019 12:45:59 PM | R62406 |
| Nitrogen, Nitrate (As N) | ND | 0.50 | | mg/L | 5 | 8/23/2019 12:45:59 PM | R62406 |
| Phosphorus, Orthophosphate (As P) | ND | 2.5 | | mg/L | 5 | 8/23/2019 12:45:59 PM | R62406 |
| Sulfate | 9.6 | 2.5 | | mg/L | 5 | 8/23/2019 12:45:59 PM | R62406 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | Analyst: | JRR |
| Conductivity | 2900 | 5.0 | | µmhos/c | 1 | 8/26/2019 5:50:01 PM | R62429 |
| SM2320B: ALKALINITY | | | | | | Analyst: | JRR |
| Bicarbonate (As CaCO3) | 1073 | 50.00 | | mg/L Ca | 2.5 | 8/29/2019 12:16:17 AM | R62496 |
| Carbonate (As CaCO3) | ND | 5.000 | | mg/L Ca | 2.5 | 8/29/2019 12:16:17 AM | R62496 |
| Total Alkalinity (as CaCO3) | 1073 | 50.00 | | mg/L Ca | 2.5 | 8/29/2019 12:16:17 AM | R62496 |
| SM2540C MOD: TOTAL DISSOLVED SOLIDS | | | | | | Analyst: | JMT |
| Total Dissolved Solids | 1800 | 100 | *D | mg/L | 1 | 8/29/2019 8:45:00 AM | 47078 |

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Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: DUPLICATE #1

Project:2019 Annual GW Sampling EventCollection Date: 8/21/2019Lab ID:1908D80-007DMatrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID | |
|-------------------------------------|--------|---------|------------|----|----------------------|----------|--|
| EPA METHOD 7470: MERCURY | | | | | Analyst: rde | | |
| Mercury | ND | 0.00020 | mg/L | 1 | 9/6/2019 5:09:29 PM | 47323 | |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | Analyst: bcv | | |
| Arsenic | ND | 0.020 | mg/L | 1 | 8/27/2019 12:56:40 F | PM 47018 | |
| Barium | 1.0 | 0.020 | mg/L | 1 | 8/27/2019 12:42:24 F | PM 47018 | |
| Cadmium | ND | 0.0020 | mg/L | 1 | 8/27/2019 12:42:24 F | PM 47018 | |
| Chromium | ND | 0.0060 | mg/L | 1 | 8/27/2019 12:42:24 F | PM 47018 | |
| Lead | 0.0072 | 0.0050 | mg/L | 1 | 8/27/2019 12:42:24 F | PM 47018 | |
| Selenium | ND | 0.050 | mg/L | 1 | 8/27/2019 12:42:24 F | PM 47018 | |
| Silver | ND | 0.0050 | mg/L | 1 | 8/27/2019 12:42:24 F | PM 47018 | |

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Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: DUPLICATE #1

Project:2019 Annual GW Sampling EventCollection Date: 8/21/2019Lab ID:1908D80-007EMatrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed I | Batch ID |
|------------------------------------|--------|---------|------------|----|-----------------------|----------|
| EPA METHOD 7470: MERCURY | | | | | Analyst | : rde |
| Mercury | ND | 0.00020 | mg/L | 1 | 9/11/2019 11:04:15 AM | 47378 |
| EPA METHOD 6010B: DISSOLVED METALS | | | | | Analyst | bcv |
| Arsenic | ND | 0.020 | mg/L | 1 | 9/9/2019 12:10:22 PM | A62764 |
| Barium | 0.97 | 0.020 | mg/L | 1 | 9/9/2019 9:18:21 AM | A62764 |
| Cadmium | ND | 0.0020 | mg/L | 1 | 9/9/2019 9:18:21 AM | A62764 |
| Calcium | 140 | 5.0 | mg/L | 5 | 9/9/2019 9:20:02 AM | A62764 |
| Chromium | ND | 0.0060 | mg/L | 1 | 9/9/2019 9:18:21 AM | A62764 |
| Copper | ND | 0.0060 | mg/L | 1 | 9/9/2019 9:18:21 AM | A62764 |
| Iron | 6.5 | 0.20 | mg/L | 10 | 9/11/2019 12:47:34 PM | A62841 |
| Lead | 0.0080 | 0.0050 | mg/L | 1 | 9/9/2019 9:18:21 AM | A62764 |
| Magnesium | 31 | 1.0 | mg/L | 1 | 9/9/2019 9:18:21 AM | A62764 |
| Manganese | 2.2 | 0.010 | mg/L | 5 | 9/9/2019 9:20:02 AM | A62764 |
| Potassium | 1.9 | 1.0 | mg/L | 1 | 9/9/2019 9:18:21 AM | A62764 |
| Selenium | ND | 0.050 | mg/L | 1 | 9/9/2019 9:18:21 AM | A62764 |
| Silver | ND | 0.0050 | mg/L | 1 | 9/9/2019 9:18:21 AM | A62764 |
| Sodium | 500 | 10 | mg/L | 10 | 9/9/2019 12:12:03 PM | A62764 |
| Uranium | ND | 0.10 | mg/L | 1 | 9/9/2019 9:18:21 AM | A62764 |
| Zinc | ND | 0.020 | mg/L | 1 | 9/9/2019 9:18:21 AM | A62764 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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- D Sample Diluted Due to Matrix
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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: DUPLICATE #1

Project:2019 Annual GW Sampling EventCollection Date: 8/21/2019Lab ID:1908D80-007FMatrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|----|------------|----|----------------------|----------------|
| EPA METHOD 8270C: SEMIVOLATILES | | | | | Analys | st: DAM |
| Acenaphthene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Acenaphthylene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | l 47026 |
| Aniline | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | l 47026 |
| Anthracene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Azobenzene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Benz(a)anthracene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Benzo(a)pyrene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Benzo(b)fluoranthene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Benzo(g,h,i)perylene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Benzo(k)fluoranthene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Benzoic acid | ND | 20 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Benzyl alcohol | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Bis(2-chloroethoxy)methane | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Bis(2-chloroethyl)ether | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Bis(2-chloroisopropyl)ether | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | l 47026 |
| Bis(2-ethylhexyl)phthalate | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 4-Bromophenyl phenyl ether | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Butyl benzyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Carbazole | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 4-Chloro-3-methylphenol | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 4-Chloroaniline | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 2-Chloronaphthalene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 2-Chlorophenol | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 4-Chlorophenyl phenyl ether | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Chrysene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Di-n-butyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| Di-n-octyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| Dibenz(a,h)anthracene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| Dibenzofuran | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| 1,2-Dichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| 1,3-Dichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| 1,4-Dichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| 3,3´-Dichlorobenzidine | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| Diethyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| Dimethyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| 2,4-Dichlorophenol | ND | 20 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 2,4-Dimethylphenol | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| 4,6-Dinitro-2-methylphenol | ND | 20 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| 2,4-Dinitrophenol | ND | 20 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| 2,4-Dinitrotoluene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| 2,6-Dinitrotoluene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |

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Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: DUPLICATE #1

Project:2019 Annual GW Sampling EventCollection Date: 8/21/2019Lab ID:1908D80-007FMatrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|----------|------------|----|----------------------|----------|
| EPA METHOD 8270C: SEMIVOLATILES | | | | | Analy | st: DAM |
| Fluoranthene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | l 47026 |
| Fluorene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Hexachlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Hexachlorobutadiene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| Hexachlorocyclopentadiene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| Hexachloroethane | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| Indeno(1,2,3-cd)pyrene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| Isophorone | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 1-Methylnaphthalene | 32 | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| 2-Methylnaphthalene | 20 | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 2-Methylphenol | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 3+4-Methylphenol | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| N-Nitrosodi-n-propylamine | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| N-Nitrosodimethylamine | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| N-Nitrosodiphenylamine | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Naphthalene | 72 | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 2-Nitroaniline | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 3-Nitroaniline | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 47026 |
| 4-Nitroaniline | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Nitrobenzene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 2-Nitrophenol | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 4-Nitrophenol | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Pentachlorophenol | ND | 20 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Phenanthrene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Phenol | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Pyrene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Pyridine | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 1,2,4-Trichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 2,4,5-Trichlorophenol | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| 2,4,6-Trichlorophenol | ND | 10 | μg/L | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Surr: 2-Fluorophenol | 50.8 | 15-101 | %Rec | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Surr: Phenol-d5 | 39.9 | 15-84.6 | %Rec | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Surr: 2,4,6-Tribromophenol | 60.2 | 27.8-112 | %Rec | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Surr: Nitrobenzene-d5 | 79.3 | 33-113 | %Rec | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Surr: 2-Fluorobiphenyl | 70.7 | 26.6-107 | %Rec | 1 | 8/29/2019 7:54:42 PM | 1 47026 |
| Surr: 4-Terphenyl-d14 | 65.3 | 18.7-148 | %Rec | 1 | 8/29/2019 7:54:42 PM | 1 47026 |

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Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: TRIP BLANK

Project: 2019 Annual GW Sampling Event **Collection Date:**

Lab ID: 1908D80-008A **Matrix:** Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|----------------------------------|--------|--------|----------------|----|----------------------|---------------|
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analys | t: RAA |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 8/27/2019 3:30:17 PM | GW6245 |
| Surr: BFB | 104 | 70-130 | %Rec | 1 | 8/27/2019 3:30:17 PM | GW6245 |
| EPA METHOD 8260B: VOLATILES | | | | | Analys | t: RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Toluene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,3,5-Trimethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Naphthalene | ND | 2.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1-Methylnaphthalene | ND | 4.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 2-Methylnaphthalene | ND | 4.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Acetone | ND | 10 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Bromobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Bromodichloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Bromoform | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Bromomethane | ND | 3.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 2-Butanone | ND | 10 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Carbon disulfide | ND | 10 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Carbon Tetrachloride | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Chlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Chloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Chloroform | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Chloromethane | ND | 3.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 2-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 4-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| cis-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| cis-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Dibromochloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Dibromomethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,2-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,3-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,4-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Dichlorodifluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,1-Dichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,1-Dichloroethene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,2-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,2-Didiliotopiopalie | ND | 1.0 | μ 9 / L | ' | 0/21/2018 3.30.17 FW | 1102400 |

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- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Collection Date:

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: TRIP BLANK

Project: 2019 Annual GW Sampling Event

Lab ID: 1908D80-008A Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|-----------------------------|--------|--------|------------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | Analys | t: RAA |
| 1,3-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 2,2-Dichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,1-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Hexachlorobutadiene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 2-Hexanone | ND | 10 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Isopropylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 4-Isopropyltoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 4-Methyl-2-pentanone | ND | 10 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Methylene Chloride | ND | 3.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| n-Butylbenzene | ND | 3.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| n-Propylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| sec-Butylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Styrene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| tert-Butylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Tetrachloroethene (PCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| trans-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| trans-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,2,3-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,2,4-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,1,1-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,1,2-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Trichloroethene (TCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Trichlorofluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| 1,2,3-Trichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Vinyl chloride | ND | 1.0 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Surr: 1,2-Dichloroethane-d4 | 94.0 | 70-130 | %Rec | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Surr: 4-Bromofluorobenzene | 96.5 | 70-130 | %Rec | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Surr: Dibromofluoromethane | 97.0 | 70-130 | %Rec | 1 | 8/27/2019 3:30:17 PM | R62453 |
| Surr: Toluene-d8 | 106 | 70-130 | %Rec | 1 | 8/27/2019 3:30:17 PM | R62453 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: EQUIPMENT BLANK #1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 4:00:00 PM

Lab ID: 1908D80-009A **Matrix:** Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|----------------------------------|--------|--------|------------|----|----------------------|---------------|
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analys | t: RAA |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 8/27/2019 3:59:20 PM | GW6245 |
| Surr: BFB | 96.2 | 70-130 | %Rec | 1 | 8/27/2019 3:59:20 PM | GW6245 |
| EPA METHOD 8260B: VOLATILES | | | | | Analys | t: RAA |
| Benzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Toluene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,2,4-Trimethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,3,5-Trimethylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Naphthalene | ND | 2.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1-Methylnaphthalene | ND | 4.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 2-Methylnaphthalene | ND | 4.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Acetone | ND | 10 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Bromobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Bromodichloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Bromoform | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Bromomethane | ND | 3.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 2-Butanone | ND | 10 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Carbon disulfide | ND | 10 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Carbon Tetrachloride | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Chlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Chloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Chloroform | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Chloromethane | ND | 3.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 2-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 4-Chlorotoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| cis-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| cis-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Dibromochloromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Dibromomethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,2-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,3-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,4-Dichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Dichlorodifluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,1-Dichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,1-Dichloroethene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,2-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: EQUIPMENT BLANK #1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 4:00:00 PM

Lab ID: 1908D80-009A **Matrix:** Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|-----------------------------|--------|--------|------------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | Analys | st: RAA |
| 1,3-Dichloropropane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 2,2-Dichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,1-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Hexachlorobutadiene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 2-Hexanone | ND | 10 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Isopropylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 4-Isopropyltoluene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 4-Methyl-2-pentanone | ND | 10 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Methylene Chloride | ND | 3.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| n-Butylbenzene | ND | 3.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| n-Propylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| sec-Butylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Styrene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| tert-Butylbenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Tetrachloroethene (PCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| trans-1,2-DCE | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| trans-1,3-Dichloropropene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,2,3-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,2,4-Trichlorobenzene | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,1,1-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,1,2-Trichloroethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Trichloroethene (TCE) | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Trichlorofluoromethane | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| 1,2,3-Trichloropropane | ND | 2.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Vinyl chloride | ND | 1.0 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Surr: 1,2-Dichloroethane-d4 | 96.7 | 70-130 | %Rec | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Surr: 4-Bromofluorobenzene | 92.5 | 70-130 | %Rec | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Surr: Dibromofluoromethane | 98.7 | 70-130 | %Rec | 1 | 8/27/2019 3:59:20 PM | R62453 |
| Surr: Toluene-d8 | 101 | 70-130 | %Rec | 1 | 8/27/2019 3:59:20 PM | R62453 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
 - 8 % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: EQUIPMENT BLANK #1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 4:00:00 PM Lab ID: 1908D80-009B Matrix: Aqueous

Analyses Result **RL Qual Units DF** Date Analyzed **Batch ID EPA METHOD 8015D: DIESEL RANGE** Analyst: JME Diesel Range Organics (DRO) ND 0.40 mg/L 8/28/2019 10:41:37 PM 47076 Motor Oil Range Organics (MRO) 8/28/2019 10:41:37 PM 47076 ND 2.5 mg/L 1 Surr: DNOP 118 52.7-168 %Rec 8/28/2019 10:41:37 PM 47076

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Date Reported:

Lab Order: **1908D80**

9/16/2019

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc.

2019 Annual GW Sampling Event

1908D80-009C

Client Sample ID: EQUIPMENT BLANK #1

Collection Date: 8/21/2019 4:00:00 PM

Matrix: Aqueous

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|-------------------------------------|--------|-------|------|---------|----|----------------------|----------------|
| CARBON DIOXIDE | | | | | | Analys | st: JRR |
| Total Carbon Dioxide | 9.6 | 1.0 | Н | mg CO2/ | 1 | 8/26/2019 6:26:41 PM | R62429 |
| EPA METHOD 300.0: ANIONS | | | | | | Analys | st: MRA |
| Fluoride | ND | 0.10 | | mg/L | 1 | 8/23/2019 1:11:42 PM | R62406 |
| Chloride | ND | 0.50 | | mg/L | 1 | 8/23/2019 1:11:42 PM | R62406 |
| Nitrogen, Nitrite (As N) | ND | 0.10 | | mg/L | 1 | 8/23/2019 1:11:42 PM | R62406 |
| Bromide | ND | 0.10 | | mg/L | 1 | 8/23/2019 1:11:42 PM | R62406 |
| Nitrogen, Nitrate (As N) | 0.10 | 0.10 | | mg/L | 1 | 8/23/2019 1:11:42 PM | R62406 |
| Phosphorus, Orthophosphate (As P) | ND | 0.50 | | mg/L | 1 | 8/23/2019 1:11:42 PM | R62406 |
| Sulfate | ND | 0.50 | | mg/L | 1 | 8/23/2019 1:11:42 PM | R62406 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | Analys | st: JRR |
| Conductivity | ND | 5.0 | | µmhos/c | 1 | 8/26/2019 6:26:41 PM | R62429 |
| SM2320B: ALKALINITY | | | | | | Analys | st: JRR |
| Bicarbonate (As CaCO3) | ND | 20.00 | | mg/L Ca | 1 | 8/26/2019 6:26:41 PM | R62429 |
| Carbonate (As CaCO3) | ND | 2.000 | | mg/L Ca | 1 | 8/26/2019 6:26:41 PM | R62429 |
| Total Alkalinity (as CaCO3) | ND | 20.00 | | mg/L Ca | 1 | 8/26/2019 6:26:41 PM | R62429 |
| SM2540C MOD: TOTAL DISSOLVED SOLIDS | | | | | | Analys | st: JMT |
| Total Dissolved Solids | ND | 20.0 | | mg/L | 1 | 8/29/2019 8:45:00 AM | 47078 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

CLIENT:

Project:

Lab ID:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** EQUIPMENT BLANK #1

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/21/2019 4:00:00 PM

Lab ID: 1908D80-009D Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|-------------------------------------|--------|---------|------------|----|----------------------|-----------------|
| EPA METHOD 7470: MERCURY | | | | | Analy | /st: rde |
| Mercury | ND | 0.00020 | mg/L | 1 | 9/6/2019 5:11:40 PM | 47323 |
| EPA 6010B: TOTAL RECOVERABLE METALS | | | | | Analy | /st: bcv |
| Arsenic | ND | 0.020 | mg/L | 1 | 8/27/2019 12:50:25 F | PM 47018 |
| Barium | ND | 0.020 | mg/L | 1 | 8/27/2019 12:50:25 F | PM 47018 |
| Cadmium | ND | 0.0020 | mg/L | 1 | 8/27/2019 12:50:25 F | PM 47018 |
| Chromium | ND | 0.0060 | mg/L | 1 | 8/27/2019 12:50:25 F | PM 47018 |
| Lead | ND | 0.0050 | mg/L | 1 | 8/27/2019 12:50:25 F | PM 47018 |
| Selenium | ND | 0.050 | mg/L | 1 | 8/27/2019 12:50:25 F | PM 47018 |
| Silver | ND | 0.0050 | mg/L | 1 | 8/27/2019 12:50:25 F | PM 47018 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order: 1908D80

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: EQUIPMENT BLANK #1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 4:00:00 PM Lab ID: 1908D80-009E Matrix: Aqueous

Analyses Result **RL Qual Units DF** Date Analyzed **Batch ID EPA METHOD 7470: MERCURY** Analyst: rde ND 0.00020 9/11/2019 11:06:27 AM 47378 mg/L **EPA METHOD 6010B: DISSOLVED METALS** Analyst: bcv 9/9/2019 12:13:44 PM Arsenic ND 0.020 mg/L A62764 1 Barium 0.020 1 9/9/2019 9:21:43 AM A62764 ND mg/L Cadmium ND 0.0020 mg/L 1 9/9/2019 9:21:43 AM A62764 Calcium 9/9/2019 9:21:43 AM ND 1.0 mg/L 1 A62764 ND Chromium 0.0060 mg/L 9/9/2019 9:21:43 AM 1 A62764 Copper ND 0.0060 mg/L 1 9/9/2019 9:21:43 AM A62764 Iron ND 0.020 mg/L 1 9/9/2019 9:21:43 AM A62764 Lead ND 0.0050 mg/L 1 9/9/2019 9:21:43 AM A62764 Magnesium ND 1.0 mg/L 1 9/9/2019 9:21:43 AM A62764 ND 0.0020 9/9/2019 9:21:43 AM Manganese mg/L 1 A62764 Potassium ND 1.0 mg/L 9/9/2019 9:21:43 AM A62764 ND Selenium 0.050 mg/L 1 9/9/2019 9:21:43 AM A62764 Silver ND 0.0050 mg/L 1 9/9/2019 9:21:43 AM A62764 Sodium ND mg/L 1 9/9/2019 9:21:43 AM 1.0 A62764

ND

0.022

0.10

0.020

mg/L

mg/L

1

9/9/2019 9:21:43 AM

9/9/2019 9:21:43 AM

A62764

A62764

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Uranium

Zinc

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: EQUIPMENT BLANK #1

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/21/2019 4:00:00 PM

Lab ID: 1908D80-009F Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|----|-------------------|----|----------------------|----------|
| EPA METHOD 8270C: SEMIVOLATILES | | | | | Analys | st: DAM |
| Acenaphthene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Acenaphthylene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Aniline | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Anthracene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Azobenzene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Benz(a)anthracene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Benzo(a)pyrene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Benzo(b)fluoranthene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Benzo(g,h,i)perylene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Benzo(k)fluoranthene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Benzoic acid | ND | 20 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Benzyl alcohol | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Bis(2-chloroethoxy)methane | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Bis(2-chloroethyl)ether | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Bis(2-chloroisopropyl)ether | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Bis(2-ethylhexyl)phthalate | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 4-Bromophenyl phenyl ether | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Butyl benzyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Carbazole | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 4-Chloro-3-methylphenol | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 4-Chloroaniline | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 2-Chloronaphthalene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 2-Chlorophenol | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 4-Chlorophenyl phenyl ether | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Chrysene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Di-n-butyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Di-n-octyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Dibenz(a,h)anthracene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Dibenzofuran | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 1,2-Dichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 1,3-Dichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 1,4-Dichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 3,3´-Dichlorobenzidine | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Diethyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Dimethyl phthalate | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 2,4-Dichlorophenol | ND | 20 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 2,4-Dimethylphenol | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 4,6-Dinitro-2-methylphenol | ND | 20 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 2,4-Dinitrophenol | ND | 20 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 2,4-Dinitrotoluene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 2,6-Dinitrotoluene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/16/2019

CLIENT: Western Refining Southwest, Inc. Client Sample ID: EQUIPMENT BLANK #1

Project: 2019 Annual GW Sampling Event Collection Date: 8/21/2019 4:00:00 PM

Lab ID: 1908D80-009F Matrix: Aqueous

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|----------|------------|----|----------------------|----------|
| EPA METHOD 8270C: SEMIVOLATILES | | | | | Analys | st: DAM |
| Fluoranthene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Fluorene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Hexachlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Hexachlorobutadiene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Hexachlorocyclopentadiene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Hexachloroethane | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Indeno(1,2,3-cd)pyrene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Isophorone | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 1-Methylnaphthalene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 2-Methylnaphthalene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 2-Methylphenol | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 3+4-Methylphenol | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| N-Nitrosodi-n-propylamine | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| N-Nitrosodimethylamine | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| N-Nitrosodiphenylamine | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Naphthalene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 2-Nitroaniline | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 3-Nitroaniline | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 4-Nitroaniline | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Nitrobenzene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 2-Nitrophenol | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 4-Nitrophenol | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Pentachlorophenol | ND | 20 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Phenanthrene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Phenol | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Pyrene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Pyridine | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 1,2,4-Trichlorobenzene | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 2,4,5-Trichlorophenol | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| 2,4,6-Trichlorophenol | ND | 10 | μg/L | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Surr: 2-Fluorophenol | 45.0 | 15-101 | %Rec | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Surr: Phenol-d5 | 33.6 | 15-84.6 | %Rec | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Surr: 2,4,6-Tribromophenol | 56.4 | 27.8-112 | %Rec | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Surr: Nitrobenzene-d5 | 64.2 | 33-113 | %Rec | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Surr: 2-Fluorobiphenyl | 55.3 | 26.6-107 | %Rec | 1 | 8/29/2019 8:25:06 PM | 47026 |
| Surr: 4-Terphenyl-d14 | 59.8 | 18.7-148 | %Rec | 1 | 8/29/2019 8:25:06 PM | 47026 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
 - S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908D80**

16-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: MB | SampT | SampType: mblk | | | tCode: El | PA Method | 300.0: Anions | ; | | | |
|----------------------------------|--------------------------|-----------------------|-----------|----------------|-----------|-----------|---------------|------|----------|------|--|
| Client ID: PBW | Batch | n ID: R6 | 2406 | F | RunNo: 6 | 2406 | | | | | |
| Prep Date: | Analysis Date: 8/23/2019 | | | SeqNo: 2121353 | | | Units: mg/L | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Fluoride | ND | 0.10 | | | | | | | | | |
| Chloride | ND | 0.50 | | | | | | | | | |
| Nitrogen, Nitrite (As N) | ND | 0.10 | | | | | | | | | |
| Bromide | ND | 0.10 | | | | | | | | | |
| Nitrogen, Nitrate (As N) | ND | 0.10 | | | | | | | | | |
| Phosphorus, Orthophosphate (As P | ND | 0.50 | | | | | | | | | |
| Sulfate | ND | 0.50 | | | | | | | | | |

| Sample ID: LCS | ample ID: LCS SampType: Ics | | | | | TestCode: EPA Method 300.0: Anions | | | | | | |
|----------------------------------|-----------------------------|-----------------|-----------|-------------|----------|------------------------------------|-------------|------|----------|------|--|--|
| Client ID: LCSW | Batc | h ID: R6 | 2406 | F | RunNo: 6 | 2406 | | | | | | |
| Prep Date: | Analysis D | Date: 8/ | 23/2019 | 5 | SeqNo: 2 | 121354 | Units: mg/L | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | | |
| Fluoride | 0.52 | 0.10 | 0.5000 | 0 | 104 | 90 | 110 | | | | | |
| Chloride | 4.9 | 0.50 | 5.000 | 0 | 97.1 | 90 | 110 | | | | | |
| Nitrogen, Nitrite (As N) | 0.94 | 0.10 | 1.000 | 0 | 94.3 | 90 | 110 | | | | | |
| Bromide | 2.4 | 0.10 | 2.500 | 0 | 97.6 | 90 | 110 | | | | | |
| Nitrogen, Nitrate (As N) | 2.5 | 0.10 | 2.500 | 0 | 101 | 90 | 110 | | | | | |
| Phosphorus, Orthophosphate (As P | 4.8 | 0.50 | 5.000 | 0 | 96.0 | 90 | 110 | | | | | |
| Sulfate | 9.8 | 0.50 | 10.00 | 0 | 98.0 | 90 | 110 | | | | | |

| Sample ID: MB | SampT | SampType: mblk | | | tCode: El | PA Method | 300.0: Anions | 3 | | |
|----------------------------------|------------|-----------------------|-----------|-------------|-----------|-----------|---------------|------|----------|------|
| Client ID: PBW | Batch | 1D: R6 | 2756 | F | RunNo: 6 | 2756 | | | | |
| Prep Date: | Analysis D | ate: 9/ | 7/2019 | 5 | SeqNo: 2 | 137528 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride | ND | 0.10 | | | | | | | | _ |
| Chloride | ND | 0.50 | | | | | | | | |
| Bromide | ND | 0.10 | | | | | | | | |
| Phosphorus, Orthophosphate (As P | ND | 0.50 | | | | | | | | |
| Sulfate | ND | 0.50 | | | | | | | | |
| Nitrate+Nitrite as N | ND | 0.20 | | | | | | | | |

| Sample ID: LCS | SampT | Type: Ics | ; | Tes | TestCode: EPA Method 300.0: Anions | | | | | | |
|-----------------|------------|-----------------|-----------|-------------|------------------------------------|----------|-------------|------|----------|------|--|
| Client ID: LCSW | Batch | h ID: R6 | 2756 | F | RunNo: 6 | 2756 | | | | | |
| Prep Date: | Analysis D | Date: 9/ | 7/2019 | S | SeqNo: 2 | 137529 | Units: mg/L | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Fluoride | 0.52 | 0.10 | 0.5000 | 0 | 105 | 90 | 110 | | | | |
| Chloride | 4.8 | 0.50 | 5.000 | 0 | 96.6 | 90 | 110 | | | | |

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 55 of 75

Hall Environmental Analysis Laboratory, Inc.

Analysis Date: 9/9/2019

PQL

0.50

10.00

Result

10

WO#: 1908D80

16-Sep-19

Client: Western Refining Southwest, Inc. **Project:** 2019 Annual GW Sampling Event

| Sample ID: LCS | SampType: Ics TestCode: EPA Metho | | | | | | 300.0: Anions | 3 | | |
|-----------------------------------|-------------------------------------|------------------------------------|-----------------------------|-------------|--|----------------------------|---------------------------|----------|----------|------|
| Client ID: LCSW | Batcl | n ID: R6 | 2756 | F | RunNo: 6 | 2756 | | | | |
| Prep Date: | Analysis D | ate: 9/ | 7/2019 | S | SeqNo: 2 | 137529 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Bromide | 2.5 | 0.10 | 2.500 | 0 | 98.7 | 90 | 110 | | | |
| Phosphorus, Orthophosphate (As P | 4.8 | 0.50 | 5.000 | 0 | 95.3 | 90 | 110 | | | |
| Sulfate | 9.7 | 0.50 | 10.00 | 0 | 97.0 | 90 | 110 | | | |
| Nitrate+Nitrite as N | 3.5 | 0.20 | 3.500 | 0 | 98.9 | 90 | 110 | | | |
| | | | | | | | | | | |
| Sample ID: MB | SampT | уре: МЕ | BLK | Tes | tCode: El | PA Method | 300.0: Anions | 5 | | |
| Sample ID: MB Client ID: PBW | • | ype: ME | | | tCode: El RunNo: 6 2 | | 300.0: Anions | 3 | | |
| · | • | n ID: R6 | 2780 | F | | 2780 | 300.0: Anions Units: mg/L | S | | |
| Client ID: PBW | Batcl | n ID: R6 | 2780 9/2019 | F | RunNo: 6 2 | 2780 | | %RPD | RPDLimit | Qual |
| Client ID: PBW Prep Date: | Batcl Analysis D | n ID: R6 Date: 9/ | 2780 9/2019 | F | RunNo: 62 SeqNo: 2 | 2780 138812 | Units: mg/L | | RPDLimit | Qual |
| Client ID: PBW Prep Date: Analyte | Batcl Analysis E Result ND | n ID: R6 Date: 9/ | 2780 9/2019 SPK value | SPK Ref Val | RunNo: 6: 6eqNo: 2 ⁻ %REC | 2780 138812 LowLimit | Units: mg/L | %RPD | RPDLimit | Qual |

SPK value SPK Ref Val %REC LowLimit

0

102

SeqNo: 2138813

Units: mg/L

HighLimit

110

90

%RPD

RPDLimit

Qual

Qualifiers:

Prep Date:

Analyte

Sulfate

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

Client:

Project:

Client ID: LCSW

Analyte

Surr: DNOP

Prep Date: 8/27/2019

Diesel Range Organics (DRO)

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc.

2019 Annual GW Sampling Event

Batch ID: 47076

Analysis Date: 8/28/2019

PQL

0.40

Result

2.5

0.24

WO#: **1908D80**

16-Sep-19

Sample ID: 1908D80-001BMS SampType: MS TestCode: EPA Method 8015D: Diesel Range Client ID: MW-1 Batch ID: 47076 RunNo: 62454 Prep Date: 8/27/2019 Analysis Date: 8/28/2019 SeqNo: 2126290 Units: mg/L PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result LowLimit Qual Diesel Range Organics (DRO) 0.40 0 2.7 2.500 109 68.3 147 Surr: DNOP 0.27 0.2500 108 52.7 168 Sample ID: 1908D80-001BMSD TestCode: EPA Method 8015D: Diesel Range SampType: MSD Client ID: MW-1 Batch ID: 47076 RunNo: 62454 Prep Date: 8/27/2019 Analysis Date: 8/28/2019 SeqNo: 2126291 Units: mg/L **RPDLimit** Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD Qual Diesel Range Organics (DRO) 0.40 2.8 2.500 0 110 68.3 147 1.07 20 Surr: DNOP 0.2500 52.7 0 0.27 108 168 Sample ID: LCS-47076 SampType: LCS TestCode: EPA Method 8015D: Diesel Range

RunNo: 62454

%REC

100

97.4

SeqNo: 2126320

LowLimit

66.7

52.7

Units: mg/L

HighLimit

148

168

%RPD

RPDLimit

Qual

| Sample ID: MB-47076 | SampT | уре: МЕ | BLK | Tes | tCode: El | PA Method | 8015D: Diese | I Range | | |
|--------------------------------|------------|-------------------|-----------|-------------|-----------|-----------|--------------|---------|----------|------|
| Client ID: PBW | Batch | n ID: 47 0 | 076 | F | RunNo: 6 | 2454 | | | | |
| Prep Date: 8/27/2019 | Analysis D | ate: 8/ | 28/2019 | S | SeqNo: 2 | 126322 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | ND | 0.40 | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | | | | | | | |
| Surr: DNOP | 0.50 | | 0.5000 | | 99.8 | 52.7 | 168 | | | |

0

SPK value SPK Ref Val

2.500

0.2500

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908D80**

16-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: 100ng lcs | SampT | SampType: LCS TestCode: EPA Method 8260B: VOLATILES | | | | | | | | |
|-----------------------------|------------|---|-----------|-------------|----------|----------|-------------|------|----------|------|
| Client ID: LCSW | Batch | n ID: R6 | 2453 | F | RunNo: 6 | 2453 | | | | |
| Prep Date: | Analysis D | ate: 8/ | 27/2019 | S | SeqNo: 2 | 124995 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 18 | 1.0 | 20.00 | 0 | 89.9 | 70 | 130 | | | |
| Toluene | 19 | 1.0 | 20.00 | 0 | 92.9 | 70 | 130 | | | |
| Chlorobenzene | 19 | 1.0 | 20.00 | 0 | 92.7 | 70 | 130 | | | |
| 1,1-Dichloroethene | 17 | 1.0 | 20.00 | 0 | 84.1 | 70 | 130 | | | |
| Trichloroethene (TCE) | 17 | 1.0 | 20.00 | 0 | 85.5 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.4 | | 10.00 | | 93.5 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.5 | | 10.00 | | 95.4 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.4 | | 10.00 | | 94.0 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.6 | | 10.00 | | 95.9 | 70 | 130 | | | |

| Sample ID: 1908d80-001a ms | SampT | ype: MS | 6 | Tes | tCode: El | ATILES | | | | |
|-----------------------------|------------|-------------------|-----------|-------------|-----------|----------|-------------|------|----------|------|
| Client ID: MW-1 | Batch | n ID: R6 | 2453 | F | RunNo: 6 | 2453 | | | | |
| Prep Date: | Analysis D | oate: 8/ 2 | 27/2019 | 8 | SeqNo: 2 | 124997 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 18 | 1.0 | 20.00 | 0 | 89.3 | 70 | 130 | | | |
| Toluene | 17 | 1.0 | 20.00 | 0 | 87.3 | 70 | 130 | | | |
| Chlorobenzene | 17 | 1.0 | 20.00 | 0 | 86.5 | 70 | 130 | | | |
| 1,1-Dichloroethene | 17 | 1.0 | 20.00 | 0 | 83.4 | 70 | 130 | | | |
| Trichloroethene (TCE) | 17 | 1.0 | 20.00 | 0 | 86.4 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.5 | | 10.00 | | 95.1 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.9 | | 10.00 | | 98.8 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.7 | | 10.00 | | 97.3 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.5 | | 10.00 | | 94.8 | 70 | 130 | | | |

| Sample ID: 1908d80-001a msd | SampT | ype: MS | SD | Tes | tCode: El | ATILES | | | | |
|-----------------------------|------------|------------------|-----------|-------------|-----------|----------|-------------|-------|----------|------|
| Client ID: MW-1 | Batch | ID: R6 | 2453 | F | RunNo: 6 | 2453 | | | | |
| Prep Date: | Analysis D | ate: 8/ 2 | 27/2019 | 8 | SeqNo: 2 | 124998 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 18 | 1.0 | 20.00 | 0 | 89.0 | 70 | 130 | 0.355 | 20 | |
| Toluene | 18 | 1.0 | 20.00 | 0 | 88.9 | 70 | 130 | 1.78 | 20 | |
| Chlorobenzene | 18 | 1.0 | 20.00 | 0 | 89.1 | 70 | 130 | 3.03 | 20 | |
| 1,1-Dichloroethene | 16 | 1.0 | 20.00 | 0 | 82.5 | 70 | 130 | 1.06 | 20 | |
| Trichloroethene (TCE) | 17 | 1.0 | 20.00 | 0 | 82.7 | 70 | 130 | 4.35 | 20 | |
| Surr: 1,2-Dichloroethane-d4 | 9.8 | | 10.00 | | 97.6 | 70 | 130 | 0 | 0 | |
| Surr: 4-Bromofluorobenzene | 9.9 | | 10.00 | | 99.1 | 70 | 130 | 0 | 0 | |
| Surr: Dibromofluoromethane | 10 | | 10.00 | | 102 | 70 | 130 | 0 | 0 | |
| Surr: Toluene-d8 | 9.8 | | 10.00 | | 98.4 | 70 | 130 | 0 | 0 | |

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 58 of 75

Sample ID: rb

Hall Environmental Analysis Laboratory, Inc.

SampType: MBLK

WO#: 1908D80

16-Sep-19

Client: Western Refining Southwest, Inc. **Project:** 2019 Annual GW Sampling Event

Client ID: PBW Batch ID: R62453 RunNo: 62453

TestCode: EPA Method 8260B: VOLATILES

| OHORRID. I DIV | Baton ib. NOZ-100 | | | (dili 10. 0 / | 100 | | | | | |
|--------------------------------|--------------------------|-----|----------------|----------------------|------|-------------|-----------|------|----------|------|
| Prep Date: | Analysis Date: 8/27/2019 | | SeqNo: 2125016 | | | Units: µg/L | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 1.0 | | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 1.0 | | | | | | | | |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | | | | | | | | |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | | | | | | | | |
| Naphthalene | ND | 2.0 | | | | | | | | |
| 1-Methylnaphthalene | ND | 4.0 | | | | | | | | |
| 2-Methylnaphthalene | ND | 4.0 | | | | | | | | |
| Acetone | ND | 10 | | | | | | | | |
| Bromobenzene | ND | 1.0 | | | | | | | | |
| Bromodichloromethane | ND | 1.0 | | | | | | | | |
| Bromoform | ND | 1.0 | | | | | | | | |
| Bromomethane | ND | 3.0 | | | | | | | | |
| 2-Butanone | ND | 10 | | | | | | | | |
| Carbon disulfide | ND | 10 | | | | | | | | |
| Carbon Tetrachloride | ND | 1.0 | | | | | | | | |
| Chlorobenzene | ND | 1.0 | | | | | | | | |
| Chloroethane | ND | 2.0 | | | | | | | | |
| Chloroform | ND | 1.0 | | | | | | | | |
| Chloromethane | ND | 3.0 | | | | | | | | |
| 2-Chlorotoluene | ND | 1.0 | | | | | | | | |
| 4-Chlorotoluene | ND | 1.0 | | | | | | | | |
| cis-1,2-DCE | ND | 1.0 | | | | | | | | |
| cis-1,3-Dichloropropene | ND | 1.0 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | | | | | | | | |
| Dibromochloromethane | ND | 1.0 | | | | | | | | |
| Dibromomethane | ND | 1.0 | | | | | | | | |
| 1,2-Dichlorobenzene | ND | 1.0 | | | | | | | | |
| 1,3-Dichlorobenzene | ND | 1.0 | | | | | | | | |
| 1,4-Dichlorobenzene | ND | 1.0 | | | | | | | | |
| Dichlorodifluoromethane | ND | 1.0 | | | | | | | | |
| 1,1-Dichloroethane | ND | 1.0 | | | | | | | | |
| 1,1-Dichloroethene | ND | 1.0 | | | | | | | | |
| 1,2-Dichloropropane | ND | 1.0 | | | | | | | | |
| 1,3-Dichloropropane | ND | 1.0 | | | | | | | | |
| 2,2-Dichloropropane | ND | 2.0 | | | | | | | | |
| | | | | | | | | | | |

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908D80**

16-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: rb | SampType: MBLK | | | TestCode: EPA Method 8260B: VOLATILES | | | | | | | | |
|-----------------------------|-------------------------|---------|-----------|---------------------------------------|-----------------------|----------|-----------|-------------|----------|------|--|--|
| Client ID: PBW | Batch ID: R62453 | | | RunNo: 62453 | | | | | | | | |
| Prep Date: | Analysis D | ate: 8/ | 27/2019 | S | SeqNo: 2125016 | | | Units: µg/L | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | | |
| 1,1-Dichloropropene | ND | 1.0 | | | | | | | | | | |
| Hexachlorobutadiene | ND | 1.0 | | | | | | | | | | |
| 2-Hexanone | ND | 10 | | | | | | | | | | |
| Isopropylbenzene | ND | 1.0 | | | | | | | | | | |
| 4-Isopropyltoluene | ND | 1.0 | | | | | | | | | | |
| 4-Methyl-2-pentanone | ND | 10 | | | | | | | | | | |
| Methylene Chloride | ND | 3.0 | | | | | | | | | | |
| n-Butylbenzene | ND | 3.0 | | | | | | | | | | |
| n-Propylbenzene | ND | 1.0 | | | | | | | | | | |
| sec-Butylbenzene | ND | 1.0 | | | | | | | | | | |
| Styrene | ND | 1.0 | | | | | | | | | | |
| tert-Butylbenzene | ND | 1.0 | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | | | | | | | | | | |
| Tetrachloroethene (PCE) | ND | 1.0 | | | | | | | | | | |
| trans-1,2-DCE | ND | 1.0 | | | | | | | | | | |
| trans-1,3-Dichloropropene | ND | 1.0 | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | ND | 1.0 | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 1.0 | | | | | | | | | | |
| 1,1,1-Trichloroethane | ND | 1.0 | | | | | | | | | | |
| 1,1,2-Trichloroethane | ND | 1.0 | | | | | | | | | | |
| Trichloroethene (TCE) | ND | 1.0 | | | | | | | | | | |
| Trichlorofluoromethane | ND | 1.0 | | | | | | | | | | |
| 1,2,3-Trichloropropane | ND | 2.0 | | | | | | | | | | |
| Vinyl chloride | ND | 1.0 | | | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.7 | | 10.00 | | 97.4 | 70 | 130 | | | | | |
| Surr: 4-Bromofluorobenzene | 9.7 | | 10.00 | | 97.2 | 70 | 130 | | | | | |
| Surr: Dibromofluoromethane | 9.7 | | 10.00 | | 96.8 | 70 | 130 | | | | | |
| Surr: Toluene-d8 | 9.8 | | 10.00 | | 98.4 | 70 | 130 | | | | | |

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908D80**

16-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: Ics-47026 | SampT | ype: LC | S | Tes | | | | | | |
|----------------------------|------------|-------------------|-----------|-----------------------|----------|----------|-------------|------|----------|------|
| Client ID: LCSW | Batch | n ID: 47 0 | 026 | F | RunNo: 6 | 2538 | | | | |
| Prep Date: 8/26/2019 | Analysis D | Date: 8/ 2 | 29/2019 | SeqNo: 2127567 | | | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Acenaphthene | 66 | 10 | 100.0 | 0 | 66.0 | 32.2 | 94 | | | |
| 4-Chloro-3-methylphenol | 140 | 10 | 200.0 | 0 | 68.6 | 37.7 | 101 | | | |
| 2-Chlorophenol | 130 | 10 | 200.0 | 0 | 66.4 | 32.6 | 90.1 | | | |
| 1,4-Dichlorobenzene | 57 | 10 | 100.0 | 0 | 56.9 | 30 | 87.2 | | | |
| 2,4-Dinitrotoluene | 62 | 10 | 100.0 | 0 | 61.7 | 35.9 | 85.8 | | | |
| N-Nitrosodi-n-propylamine | 68 | 10 | 100.0 | 0 | 67.7 | 37.1 | 108 | | | |
| 4-Nitrophenol | 110 | 10 | 200.0 | 0 | 54.5 | 22.4 | 86.6 | | | |
| Pentachlorophenol | 110 | 20 | 200.0 | 0 | 53.9 | 31.6 | 91 | | | |
| Phenol | 110 | 10 | 200.0 | 0 | 55.6 | 21.7 | 84.9 | | | |
| Pyrene | 61 | 10 | 100.0 | 0 | 61.1 | 46.3 | 103 | | | |
| 1,2,4-Trichlorobenzene | 58 | 10 | 100.0 | 0 | 57.6 | 30.2 | 88.3 | | | |
| Surr: 2-Fluorophenol | 120 | | 200.0 | | 59.2 | 15 | 101 | | | |
| Surr: Phenol-d5 | 120 | | 200.0 | | 58.0 | 15 | 84.6 | | | |
| Surr: 2,4,6-Tribromophenol | 120 | | 200.0 | | 58.0 | 27.8 | 112 | | | |
| Surr: Nitrobenzene-d5 | 76 | | 100.0 | | 76.4 | 33 | 113 | | | |
| Surr: 2-Fluorobiphenyl | 64 | | 100.0 | | 63.7 | 26.6 | 107 | | | |
| Surr: 4-Terphenyl-d14 | 61 | | 100.0 | | 60.6 | 18.7 | 148 | | | |

| Sample ID: Icsd-47026 | SampT | ype: LC | SD | TestCode: EPA Method 8270C: Semivolatiles | | | | | | |
|----------------------------|--|----------------|-----------|---|------|----------|-------------|------|----------|------|
| Client ID: LCSS02 | Batch ID: 47026 Analysis Date: 8/29/2019 | | | RunNo: 62538 | | | | | | |
| Prep Date: 8/26/2019 | | | | SeqNo: 2127570 | | | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Acenaphthene | 84 | 10 | 100.0 | 0 | 84.5 | 32.2 | 94 | 24.6 | 32.9 | |
| 4-Chloro-3-methylphenol | 170 | 10 | 200.0 | 0 | 85.5 | 37.7 | 101 | 21.9 | 29.9 | |
| 2-Chlorophenol | 170 | 10 | 200.0 | 0 | 84.1 | 32.6 | 90.1 | 23.5 | 28.5 | |
| 1,4-Dichlorobenzene | 72 | 10 | 100.0 | 0 | 71.8 | 15 | 87.2 | 23.2 | 44.9 | |
| 2,4-Dinitrotoluene | 80 | 10 | 100.0 | 0 | 80.2 | 35.9 | 85.8 | 26.0 | 28.5 | |
| N-Nitrosodi-n-propylamine | 91 | 10 | 100.0 | 0 | 90.9 | 37.1 | 108 | 29.3 | 29.9 | |
| 4-Nitrophenol | 120 | 10 | 200.0 | 0 | 58.5 | 15 | 86.6 | 7.19 | 68 | |
| Pentachlorophenol | 130 | 20 | 200.0 | 0 | 66.7 | 31.6 | 91 | 21.3 | 39.5 | |
| Phenol | 130 | 10 | 200.0 | 0 | 66.4 | 15 | 84.9 | 17.8 | 44.2 | |
| Pyrene | 75 | 10 | 100.0 | 0 | 75.3 | 46.3 | 103 | 20.9 | 23.8 | |
| 1,2,4-Trichlorobenzene | 71 | 10 | 100.0 | 0 | 70.6 | 15.7 | 88.3 | 20.2 | 38 | |
| Surr: 2-Fluorophenol | 150 | | 200.0 | | 73.6 | 15 | 101 | 0 | 0 | |
| Surr: Phenol-d5 | 140 | | 200.0 | | 68.1 | 15 | 84.6 | 0 | 0 | |
| Surr: 2,4,6-Tribromophenol | 140 | | 200.0 | | 72.2 | 27.8 | 112 | 0 | 0 | |
| Surr: Nitrobenzene-d5 | 91 | | 100.0 | | 90.6 | 33 | 113 | 0 | 0 | |
| Surr: 2-Fluorobiphenyl | 77 | | 100.0 | | 77.4 | 26.6 | 107 | 0 | 0 | |

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

ND

ND

ND

10

10

10

WO#: **1908D80**

16-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: Icsd-47026 SampType: LCSD TestCode: EPA Method 8270C: Semivolatiles

Client ID: LCSS02 Batch ID: 47026 RunNo: 62538

Prep Date: 8/26/2019 Analysis Date: 8/29/2019 SeqNo: 2127570 Units: μg/L

Analyte SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result Surr: 4-Terphenyl-d14 76 100.0 76.3 18.7 148 0 0

Sample ID: mb-47026 SampType: MBLK TestCode: EPA Method 8270C: Semivolatiles Client ID: PBW Batch ID: 47026 RunNo: 62538 Prep Date: 8/26/2019 Analysis Date: 8/29/2019 SeqNo: 2127573 Units: µg/L PQL SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Analyte Result HighLimit Qual ND Acenaphthene 10 Acenaphthylene ND 10 Aniline ND 10 Anthracene ND 10 ND 10 Azobenzene

| (-)- | | |
|-----------------------------|----|----|
| Benzo(a)pyrene | ND | 10 |
| Benzo(b)fluoranthene | ND | 10 |
| Benzo(g,h,i)perylene | ND | 10 |
| Benzo(k)fluoranthene | ND | 10 |
| Benzoic acid | ND | 20 |
| Benzyl alcohol | ND | 10 |
| Bis(2-chloroethoxy)methane | ND | 10 |
| Bis(2-chloroethyl)ether | ND | 10 |
| Bis(2-chloroisopropyl)ether | ND | 10 |
| Bis(2-ethylhexyl)phthalate | ND | 10 |
| 4-Bromophenyl phenyl ether | ND | 10 |
| Butyl benzyl phthalate | ND | 10 |
| Carbazole | ND | 10 |
| 4-Chloro-3-methylphenol | ND | 10 |
| 4-Chloroaniline | ND | 10 |
| 2-Chloronaphthalene | ND | 10 |
| 2-Chlorophenol | ND | 10 |
| 4-Chlorophenyl phenyl ether | ND | 10 |
| Chrysene | ND | 10 |
| Di-n-butyl phthalate | ND | 10 |
| Di-n-octyl phthalate | ND | 10 |
| Dibenz(a,h)anthracene | ND | 10 |
| Dibenzofuran | ND | 10 |
| 1,2-Dichlorobenzene | ND | 10 |
| | | |

Qualifiers:

1,3-Dichlorobenzene

1,4-Dichlorobenzene

Benz(a)anthracene

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908D80**

16-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: mb-47026 SampType: MBLK TestCode: EPA Method 8270C: Semivolatiles Client ID: PBW Batch ID: 47026 RunNo: 62538 Prep Date: 8/26/2019 Analysis Date: 8/29/2019 SeqNo: 2127573 Units: µg/L PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte 3,3'-Dichlorobenzidine ND 10 Diethyl phthalate ND 10 Dimethyl phthalate ND 10 2,4-Dichlorophenol ND 20 2,4-Dimethylphenol ND 10 4,6-Dinitro-2-methylphenol ND 20 2,4-Dinitrophenol ND 20 2,4-Dinitrotoluene ND 10 2,6-Dinitrotoluene ND 10 ND 10 Fluoranthene ND 10 Fluorene 10 ND Hexachlorobenzene ND 10 Hexachlorobutadiene Hexachlorocyclopentadiene ND 10 Hexachloroethane ND 10 10 Indeno(1,2,3-cd)pyrene ND ND 10 Isophorone 1-Methylnaphthalene ND 10 2-Methylnaphthalene ND 10 2-Methylphenol ND 10 ND 3+4-Methylphenol 10 N-Nitrosodi-n-propylamine ND 10 N-Nitrosodimethylamine ND 10 N-Nitrosodiphenylamine ND 10 Naphthalene ND 10 2-Nitroaniline ND 10 3-Nitroaniline ND 10 ND 10 4-Nitroaniline Nitrobenzene ND 10 2-Nitrophenol ND 10 4-Nitrophenol ND 10 ND Pentachlorophenol 20 ND 10 Phenanthrene ND 10 Phenol Pyrene ND 10 Pyridine ND 10 1,2,4-Trichlorobenzene ND 10 2,4,5-Trichlorophenol ND 10 2,4,6-Trichlorophenol ND 10

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908D80**

16-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: mb-47026 Client ID: PBW | SampT _y Batch | /pe: ME ID: 47 (| | | tCode: El RunNo: 6 | | 8270C: Semi | olatiles/ | | |
|---------------------------------------|-----------------------------|---|-----------|-------------|-------------------------------------|----------|-------------|-----------|----------|------|
| Prep Date: 8/26/2019 | Analysis Da | nalysis Date: 8/29/2019 Result POI SPK value S | | | SeqNo: 2 | 127573 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 2-Fluorophenol | 120 | | 200.0 | | 58.6 | 15 | 101 | | | |
| Surr: Phenol-d5 | 110 | | 200.0 | | 52.8 | 15 | 84.6 | | | |
| Surr: 2,4,6-Tribromophenol | 150 | | 200.0 | | 73.6 | 27.8 | 112 | | | |
| Surr: Nitrobenzene-d5 | 82 | | 100.0 | | 82.3 | 33 | 113 | | | |
| Surr: 2-Fluorobiphenyl | 72 | | 100.0 | | 71.8 | 26.6 | 107 | | | |
| Surr: 4-Terphenyl-d14 | 77 | | 100.0 | | 76.7 | 18.7 | 148 | | | |

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908D80**

16-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: Ics-1 99.8uS eC SampType: Ics TestCode: SM2510B: Specific Conductance

Client ID: LCSW Batch ID: R62429 RunNo: 62429

Prep Date: Analysis Date: 8/26/2019 SeqNo: 2122562 Units: µmhos/cm

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Conductivity 100 5.0 99.80 0 101 85 115

Sample ID: Ics-2 99.8uS eC SampType: Ics TestCode: SM2510B: Specific Conductance

Client ID: LCSW Batch ID: R62429 RunNo: 62429

Prep Date: Analysis Date: 8/26/2019 SeqNo: 2122588 Units: µmhos/cm

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Conductivity 100 5.0 99.80 0 105 85 115

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908D80**

16-Sep-19

| Client: | | Refining Southwe | | | | | | | | |
|------------|----------------|----------------------|-----------|-------------|-------------------|-----------|--------------|------|----------|------|
| Project: | 2019 Ann | nual GW Samplin | g Event | | | | | | | |
| Sample ID: | MB-47323 | SampType: M I | BLK | Tes | tCode: EF | PA Method | 7470: Mercur | у | | |
| Client ID: | PBW | Batch ID: 47 | 323 | F | RunNo: 62 | 2727 | | | | |
| Prep Date: | 9/6/2019 | Analysis Date: 9/ | /6/2019 | \$ | SeqNo: 21 | 136161 | Units: mg/L | | | |
| Analyte | | Result PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury | | ND 0.00020 | | | | | | | | |
| Sample ID: | LCS-47323 | SampType: L C | s | Tes | tCode: EF | PA Method | 7470: Mercur | у | | |
| Client ID: | LCSW | Batch ID: 47 | 323 | F | RunNo: 62 | 2727 | | | | |
| Prep Date: | 9/6/2019 | Analysis Date: 9/ | /6/2019 | 5 | SeqNo: 21 | 136162 | Units: mg/L | | | |
| Analyte | | Result PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury | | 0.0050 0.00020 | 0.005000 | 0 | 99.2 | 80 | 120 | | | |
| Sample ID: | 1908D80-002DMS | SampType: M | S | Tes | tCode: EF | PA Method | 7470: Mercur | у | | |
| Client ID: | MW-13 | Batch ID: 47 | 323 | F | RunNo: 62 | 2727 | | | | |
| Prep Date: | 9/6/2019 | Analysis Date: 9 | /6/2019 | 5 | SeqNo: 21 | 136175 | Units: mg/L | | | |
| Analyte | | Result PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury | | 0.0037 0.0010 | 0.005000 | 0 | 74.5 | 75 | 125 | | | S |
| Sample ID: | 1908D80-002DMS | D SampType: M | SD | Tes | tCode: EF | PA Method | 7470: Mercur | у | | |
| Client ID: | MW-13 | Batch ID: 47 | 323 | F | RunNo: 62 | 2727 | | | | |
| Prep Date: | 9/6/2019 | Analysis Date: 9/ | /6/2019 | 9 | SeqNo: 2 1 | 136176 | Units: mg/L | | | |
| Analyte | | Result PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury | | 0.0036 0.0010 | 0.005000 | 0 | 72.1 | 75 | 125 | 3.24 | 20 | S |
| Sample ID: | MB-47378 | SampType: MI | BLK | Tes | tCode: EF | PA Method | 7470: Mercur | у | | |
| Client ID: | PBW | Batch ID: 47 | 378 | F | RunNo: 62 | 2816 | | | | |
| Prep Date: | 9/10/2019 | Analysis Date: 9 | /10/2019 | 5 | SeqNo: 21 | 140407 | Units: mg/L | | | |
| Analyte | | Result PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Mercury | | ND 0.00020 | | | | | | | | |
| Sample ID: | LCS-47378 | SampType: LC | cs | Tes | tCode: EF | PA Method | 7470: Mercur | у | | |
| Client ID: | LCSW | Batch ID: 47 | 378 | F | RunNo: 62 | 2816 | | | | |
| Prep Date: | 9/10/2019 | Analysis Date: 9 | /10/2019 | S | SeqNo: 2 1 | 140408 | Units: mg/L | | | |
| 1 | | | | | | | | | | |

Qualifiers:

Analyte

Mercury

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

Result

0.0051 0.00020

PQL

0.005000

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

SPK value SPK Ref Val %REC LowLimit

RL Reporting Limit

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RPDLimit

Qual

%RPD

HighLimit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908D80**

1.31

125

20

16-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: 1908D80-001EMS SampType: MS TestCode: EPA Method 7470: Mercury

Client ID: MW-1 Batch ID: 47378 RunNo: 62816

Prep Date: 9/10/2019 Analysis Date: 9/10/2019 SeqNo: 2140410 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.0054 0.00020 0.005000 0 108 75 125

Sample ID: 1908D80-001EMSD SampType: MSD TestCode: EPA Method 7470: Mercury

Client ID: MW-1 Batch ID: 47378 RunNo: 62816

0.0055 0.00020

Prep Date: 9/10/2019 Analysis Date: 9/10/2019 SeqNo: 2140411 Units: mg/L

0.005000

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

110

Qualifiers:

Mercury

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

ND

ND

ND

1.0

0.10

0.020

SampType: LCS

WO#: **1908D80**

16-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: MB-A SampType: MBLK TestCode: EPA Method 6010B: Dissolved Metals Client ID: PBW Batch ID: A62764 RunNo: 62764 Prep Date: Analysis Date: 9/9/2019 SeqNo: 2137952 Units: mg/L PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Arsenic ND 0.020 Barium ND 0.020 ND 0.0020 Cadmium Calcium ND 1.0 Chromium ND 0.0060 ND 0.0060 Copper Iron ND 0.020 ND 0.0050 Lead Magnesium ND 1.0 ND 0.0020 Manganese Potassium ND 1.0 ND 0.050 Selenium ND 0.0050 Silver

| Client ID: LCSW | Bato | ch ID: A6 | 2764 | F | RunNo: 6 | 2764 | | | | |
|-----------------|----------|-----------------|-----------|-------------|----------|----------|-------------|------|----------|------|
| Prep Date: | Analysis | Date: 9/ | 9/2019 | 8 | SeqNo: 2 | 137953 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | 0.48 | 0.020 | 0.5000 | 0 | 95.6 | 80 | 120 | | | |
| Barium | 0.48 | 0.020 | 0.5000 | 0 | 95.1 | 80 | 120 | | | |
| Cadmium | 0.50 | 0.0020 | 0.5000 | 0 | 99.4 | 80 | 120 | | | |
| Calcium | 50 | 1.0 | 50.00 | 0 | 100 | 80 | 120 | | | |
| Chromium | 0.49 | 0.0060 | 0.5000 | 0 | 97.1 | 80 | 120 | | | |
| Copper | 0.50 | 0.0060 | 0.5000 | 0 | 100 | 80 | 120 | | | |
| Iron | 0.49 | 0.020 | 0.5000 | 0 | 98.6 | 80 | 120 | | | |
| Lead | 0.49 | 0.0050 | 0.5000 | 0 | 98.6 | 80 | 120 | | | |
| Magnesium | 50 | 1.0 | 50.00 | 0 | 100 | 80 | 120 | | | |
| Manganese | 0.48 | 0.0020 | 0.5000 | 0 | 97.0 | 80 | 120 | | | |
| Potassium | 50 | 1.0 | 50.00 | 0 | 99.3 | 80 | 120 | | | |
| Selenium | 0.48 | 0.050 | 0.5000 | 0 | 96.3 | 80 | 120 | | | |
| Silver | 0.10 | 0.0050 | 0.1000 | 0 | 99.8 | 80 | 120 | | | |
| Sodium | 50 | 1.0 | 50.00 | 0 | 99.6 | 80 | 120 | | | |
| Uranium | 0.46 | 0.10 | 0.5000 | 0 | 91.3 | 80 | 120 | | | |
| Zinc | 0.48 | 0.020 | 0.5000 | 0 | 96.5 | 80 | 120 | | | |

Qualifiers:

Sodium

Uranium

Sample ID: LCS-A

Zinc

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

TestCode: EPA Method 6010B: Dissolved Metals

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908D80**

16-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: MB-A SampType: MBLK TestCode: EPA Method 6010B: Dissolved Metals

Client ID: PBW Batch ID: A62841 RunNo: 62841

Prep Date: Analysis Date: 9/11/2019 SeqNo: 2141041 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Iron ND 0.020

Sample ID: LCS-A SampType: LCS TestCode: EPA Method 6010B: Dissolved Metals

Client ID: LCSW Batch ID: A62841 RunNo: 62841

Prep Date: Analysis Date: 9/11/2019 SeqNo: 2141042 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Iron 0.48 0.020 0.5000 0 95.5 80 120

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908D80**

16-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: 1908D80-001DMS | Samp | Туре: МЅ |) | TestCode: EPA 6010B: Total Recoverable Metals | | | | | | |
|---------------------------|----------|-------------------|-----------|---|----------|----------|-------------|------|----------|------|
| Client ID: MW-1 | Bato | h ID: 470 | 018 | F | RunNo: 6 | 2461 | | | | |
| Prep Date: 8/23/2019 | Analysis | Date: 8/ 2 | 27/2019 | 8 | SeqNo: 2 | 124151 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Barium | 0.54 | 0.020 | 0.5000 | 0.06969 | 94.2 | 75 | 125 | | | |
| Cadmium | 0.50 | 0.0020 | 0.5000 | 0 | 100 | 75 | 125 | | | |
| Chromium | 0.49 | 0.0060 | 0.5000 | 0 | 97.1 | 75 | 125 | | | |
| Lead | 0.48 | 0.0050 | 0.5000 | 0 | 95.8 | 75 | 125 | | | |
| Selenium | 0.45 | 0.050 | 0.5000 | 0 | 89.8 | 75 | 125 | | | |
| Silver | 0.099 | 0.0050 | 0.1000 | 0.001404 | 97.6 | 75 | 125 | | | |

| Sample ID: 1908D80-001DMS | D Samp | Type: MS | SD | Tes | tCode: El | PA 6010B: 1 | Total Recover | able Meta | als | |
|---------------------------|---------------|-------------------|-----------|-------------|-----------|-------------|---------------|-----------|----------|------|
| Client ID: MW-1 | Bato | h ID: 470 | 018 | F | RunNo: 6 | 2461 | | | | |
| Prep Date: 8/23/2019 | Analysis | Date: 8/ 2 | 27/2019 | 8 | SeqNo: 2 | 124152 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Barium | 0.54 | 0.020 | 0.5000 | 0.06969 | 94.5 | 75 | 125 | 0.240 | 20 | |
| Cadmium | 0.50 | 0.0020 | 0.5000 | 0 | 101 | 75 | 125 | 0.808 | 20 | |
| Chromium | 0.49 | 0.0060 | 0.5000 | 0 | 97.7 | 75 | 125 | 0.553 | 20 | |
| Lead | 0.49 | 0.0050 | 0.5000 | 0 | 97.8 | 75 | 125 | 2.13 | 20 | |
| Selenium | 0.47 | 0.050 | 0.5000 | 0 | 93.1 | 75 | 125 | 3.65 | 20 | |
| Silver | 0.099 | 0.0050 | 0.1000 | 0.001404 | 97.7 | 75 | 125 | 0.0564 | 20 | |

| Sample ID: MB-47018 SampType: MBLK TestCode: EPA 6010B: Total Recoverable Metals | | | | | | | | | | | | |
|--|----------------------|------------|-------------------|-----------|-------------|----------|----------|-------------|------|----------|------|--|
| | Client ID: PBW | Batc | h ID: 47 0 | 018 | F | RunNo: 6 | 2461 | | | | | |
| | Prep Date: 8/23/2019 | Analysis [| Date: 8/ 3 | 27/2019 | 8 | SeqNo: 2 | 124174 | Units: mg/L | | | | |
| | Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| | Arsenic | ND | 0.020 | | | | | | | | | |
| | Barium | ND | 0.020 | | | | | | | | | |
| | Cadmium | ND | 0.0020 | | | | | | | | | |
| | Chromium | ND | 0.0060 | | | | | | | | | |

| Sample ID: LCS-47018 | SampType: LCS | TestCode: EPA 6010B: Total Rec |
|----------------------|-----------------------|--------------------------------|
| Selenium Silver | ND 0.050 ND 0.0050 | |
| Lead | ND 0.0050 | |
| Chromium | ND 0.0060 | |

| Sample ID: LCS-47018 | Samp | Type: LC | S | Tes | ıls | | | | | |
|----------------------|----------|-------------------|-----------|-------------|----------|----------|-------------|------|----------|------|
| Client ID: LCSW | Bato | h ID: 470 | 018 | F | RunNo: 6 | 2461 | | | | |
| Prep Date: 8/23/2019 | Analysis | Date: 8/ 3 | 27/2019 | 8 | SeqNo: 2 | 124176 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | 0.48 | 0.020 | 0.5000 | 0 | 96.5 | 80 | 120 | | | |
| Barium | 0.48 | 0.020 | 0.5000 | 0 | 95.7 | 80 | 120 | | | |
| Cadmium | 0.50 | 0.0020 | 0.5000 | 0 | 99.3 | 80 | 120 | | | |

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908D80**

16-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: LCS-47018 | Samp | Type: LC | S | TestCode: EPA 6010B: Total Recoverable Metals | | | | | | | | |
|----------------------|----------|-------------------|-----------|---|----------|----------|-------------|------|----------|------|--|--|
| Client ID: LCSW | Bato | h ID: 470 | 018 | F | RunNo: 6 | 2461 | | | | | | |
| Prep Date: 8/23/2019 | Analysis | Date: 8/ 3 | 27/2019 | 8 | SeqNo: 2 | 124176 | Units: mg/L | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | | |
| Chromium | 0.49 | 0.0060 | 0.5000 | 0 | 99.0 | 80 | 120 | | | | | |
| Lead | 0.48 | 0.0050 | 0.5000 | 0 | 96.4 | 80 | 120 | | | | | |
| Selenium | 0.49 | 0.050 | 0.5000 | 0 | 97.1 | 80 | 120 | | | | | |
| Silver | 0.097 | 0.0050 | 0.1000 | 0 | 97.4 | 80 | 120 | | | | | |

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analysis Date: 8/27/2019

PQL

0.050

Result

0.48

9.9

WO#: **1908D80**

16-Sep-19

Client: Western Refining Southwest, Inc.
Project: 2019 Annual GW Sampling Event

| Sample ID: 1908d80-002a m | s Samp1 | Гуре: МS | 3 | TestCode: EPA Method 8015D: Gasoline Range | | | | | | |
|------------------------------------|----------------|-------------------|-----------|--|-----------|-----------|---------------------------|-----------|----------|------|
| Client ID: MW-13 | Batc | h ID: GV | V62453 | F | RunNo: 6 | 2453 | | | | |
| Prep Date: | Analysis D | Date: 8/ 2 | 27/2019 | S | SeqNo: 2 | 126256 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 0.44 | 0.050 | 0.5000 | 0 | 87.5 | 70 | 130 | | | |
| Surr: BFB | 10 | | 10.00 | | 100 | 70 | 130 | | | |
| Sample ID: 1908d80-002a m | sd Samp1 | Гуре: МЅ | SD | Tes | tCode: El | PA Method | 8015D: Gaso | line Rang | e | |
| Client ID: MW-13 | Batc | h ID: GV | V62453 | F | RunNo: 6 | 2453 | | | | |
| Prep Date: | Analysis D | Date: 8/ 2 | 27/2019 | 8 | SeqNo: 2 | 126257 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 0.42 | 0.050 | 0.5000 | 0 | 84.4 | 70 | 130 | 3.58 | 20 | |
| | 0.12 | | | | | | | | | |
| Surr: BFB | 10 | | 10.00 | | 100 | 70 | 130 | 0 | 0 | |
| Surr: BFB Sample ID: 2.5ug gro Ics | 10 | Гуре: LC | | Tes | | | 130 8015D: Gaso | | | |

| Sample ID: rb | SampT | уре: МЕ | BLK | Test | Code: El | PA Method | 8015D: Gaso | line Rang | е | |
|-------------------------------|------------|------------------|-----------|-------------|----------|-----------|-------------|-----------|----------|------|
| Client ID: PBW | Batch | n ID: GV | V62453 | R | tunNo: 6 | 2453 | | | | |
| Prep Date: | Analysis D | ate: 8/ 2 | 27/2019 | S | eqNo: 2 | 126273 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND | 0.050 | | | | | | | | |
| Surr: BFB | 9.9 | | 10.00 | | 98.5 | 70 | 130 | | | |

0

SPK value SPK Ref Val %REC

0.5000

10.00

SeqNo: 2126272

95.3

99.0

LowLimit

70

70

Units: mg/L

HighLimit

130

130

%RPD

RPDLimit

Qual

Qualifiers:

Prep Date:

Surr: BFB

Gasoline Range Organics (GRO)

Analyte

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: 1908D80

16-Sep-19

| | ern Refining Southwest, Inc. Annual GW Sampling Event | | | | |
|--|---|--|---|----------|------|
| Sample ID: mb-1 alk | SampType: mblk | TestCode: SM2320B: A | Ikalinity | | |
| Client ID: PBW | Batch ID: R62429 | RunNo: 62429 | | | |
| Prep Date: | Analysis Date: 8/26/2019 | SeqNo: 2122487 | Units: mg/L CaCO3 | | |
| Analyte | Result PQL SPK value | SPK Ref Val %REC LowLimit | HighLimit %RPD | RPDLimit | Qual |
| Total Alkalinity (as CaCO3) | ND 20.00 | | | | |
| Sample ID: Ics-1 alk | SampType: Ics | TestCode: SM2320B: A | Ikalinity | | |
| Client ID: LCSW | Batch ID: R62429 | RunNo: 62429 | | | |
| Prep Date: | Analysis Date: 8/26/2019 | SeqNo: 2122488 | Units: mg/L CaCO3 | | |
| Analyte | Result PQL SPK value | SPK Ref Val %REC LowLimit | HighLimit %RPD | RPDLimit | Qual |
| Total Alkalinity (as CaCO3) | 79.32 20.00 80.00 | 0 99.2 90 | 110 | | |
| Sample ID: mb-2 alk | SampType: mblk | TestCode: SM2320B: A | Ikalinity | | |
| Client ID: PBW | Batch ID: R62429 | RunNo: 62429 | | | |
| Prep Date: | Analysis Date: 8/26/2019 | SeqNo: 2122510 | Units: mg/L CaCO3 | | |
| Analyte | Result PQL SPK value | SPK Ref Val %REC LowLimit | HighLimit %RPD | RPDLimit | Qual |
| Total Alkalinity (as CaCO3) | ND 20.00 | | | | |
| Sample ID: Ics-2 alk | SampType: Ics | TestCode: SM2320B: A | Ikalinity | | |
| Client ID: LCSW | Batch ID: R62429 | RunNo: 62429 | | | |
| Prep Date: | Analysis Date: 8/26/2019 | SeqNo: 2122511 | Units: mg/L CaCO3 | | |
| | | | | | |
| Analyte | Result PQL SPK value | SPK Ref Val %REC LowLimit | HighLimit %RPD | RPDLimit | Qual |
| Analyte Total Alkalinity (as CaCO3) | Result PQL SPK value 79.64 20.00 80.00 | SPK Ref Val %REC LowLimit 0 99.6 90 | HighLimit %RPD 110 | RPDLimit | Qual |
| • | | | 110 | RPDLimit | Qual |
| Total Alkalinity (as CaCO3) | 79.64 20.00 80.00 | 0 99.6 90 | 110 | RPDLimit | Qual |
| Total Alkalinity (as CaCO3) Sample ID: mb-3 alk | 79.64 20.00 80.00 SampType: mblk | 0 99.6 90 TestCode: SM2320B: A | 110 | RPDLimit | Qual |
| Total Alkalinity (as CaCO3) Sample ID: mb-3 alk Client ID: PBW | 79.64 20.00 80.00 SampType: mblk Batch ID: R62429 Analysis Date: 8/26/2019 | 0 99.6 90 TestCode: SM2320B: A RunNo: 62429 | 110 Ikalinity Units: mg/L CaCO3 | | Qual |
| Total Alkalinity (as CaCO3) Sample ID: mb-3 alk Client ID: PBW Prep Date: | 79.64 20.00 80.00 SampType: mblk Batch ID: R62429 Analysis Date: 8/26/2019 | 0 99.6 90 TestCode: SM2320B: A RunNo: 62429 SeqNo: 2122533 | 110 Ikalinity Units: mg/L CaCO3 | | |
| Total Alkalinity (as CaCO3) Sample ID: mb-3 alk Client ID: PBW Prep Date: Analyte | 79.64 20.00 80.00 SampType: mblk Batch ID: R62429 Analysis Date: 8/26/2019 Result PQL SPK value | 0 99.6 90 TestCode: SM2320B: A RunNo: 62429 SeqNo: 2122533 | 110 Ikalinity Units: mg/L CaCO3 HighLimit %RPD | | |
| Total Alkalinity (as CaCO3) Sample ID: mb-3 alk Client ID: PBW Prep Date: Analyte Total Alkalinity (as CaCO3) | 79.64 20.00 80.00 SampType: mblk Batch ID: R62429 Analysis Date: 8/26/2019 Result PQL SPK value ND 20.00 | 0 99.6 90 TestCode: SM2320B: A RunNo: 62429 SeqNo: 2122533 SPK Ref Val %REC LowLimit | 110 Ikalinity Units: mg/L CaCO3 HighLimit %RPD | | |

Qualifiers:

Analyte

Total Alkalinity (as CaCO3)

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded

Result

80.12

PQL

20.00

80.00

- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range

SPK value SPK Ref Val %REC LowLimit

RL Reporting Limit **RPDLimit**

Qual

%RPD

HighLimit

110

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908D80**

16-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: mb-1 alk SampType: mblk TestCode: SM2320B: Alkalinity

Client ID: PBW Batch ID: R62496 RunNo: 62496

Prep Date: Analysis Date: 8/28/2019 SeqNo: 2126078 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) ND 20.00

Sample ID: Ics-1 alk SampType: Ics TestCode: SM2320B: Alkalinity

Client ID: LCSW Batch ID: R62496 RunNo: 62496

Prep Date: Analysis Date: 8/28/2019 SeqNo: 2126079 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) 78.96 20.00 80.00 0 98.7 90 110

Sample ID: mb-2 alk SampType: mblk TestCode: SM2320B: Alkalinity

Client ID: PBW Batch ID: R62496 RunNo: 62496

Prep Date: Analysis Date: 8/28/2019 SeqNo: 2126101 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) ND 20.00

Sample ID: Ics-2 alk SampType: Ics TestCode: SM2320B: Alkalinity

Client ID: LCSW Batch ID: R62496 RunNo: 62496

Prep Date: Analysis Date: 8/28/2019 SeqNo: 2126102 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) 80.56 20.00 80.00 0 101 90 110

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908D80**

16-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: MB-47078 SampType: MBLK TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: PBW Batch ID: 47078 RunNo: 62492

Prep Date: 8/27/2019 Analysis Date: 8/29/2019 SeqNo: 2125816 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids ND 20.0

Sample ID: LCS-47078 SampType: LCS TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: LCSW Batch ID: 47078 RunNo: 62492

Prep Date: 8/27/2019 Analysis Date: 8/29/2019 SeqNo: 2125817 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids 1030 20.0 1000 0 103 80 120

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109

Sample Log-In Check List

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

| Client Name: | Western Refining Sout | hw Work Order Numi | per: 1908D8 | 0 | RcptNo: | 1 |
|--------------------------|--|-------------------------|--------------------------------|------------------------------|------------------------|-------------------|
| Received By: | Leah Baca | 8/22/2019 8:25:00 / | AM | /m/ Par | 4 | |
| Completed By | Anne Thorne | 8/23/2019 8:14:27 / | AM. | Lood Bac Arne St. | , | |
| _ | 168/23/11 | 0.20.2010 0.14.277 | 441 | Anne H | | |
| Chain of Cu | stod <u>y</u> | | | | | |
| 1. Is Chain of | Custody complete? | | Yes 🗹 | No 🗆 | Not Present | |
| 2. How was the | e sample delivered? | | Courier | | | |
| Log In 3. Was an atte | mpt made to cool the sam | ples? | Yes 🗸 | No 🗌 | NA 🗆 | |
| 4. 386 11 | | | | . | | |
| 4. vvere all san | nples received at a temper | ature of >0° C to 6.0°C | Yes 🗹 | No 🗆 | NA 🗆 | |
| 5. Sample(s) ir | proper container(s)? | | Yes 🗹 | No 🗆 | | |
| 6. Sufficient sa | mple volume for indicated | test(s)? | Yes 🗹 | No 🗌 | | |
| 7. Are samples | (except VOA and ONG) p | operly preserved? | Yes 🗸 | No 🗌 | | |
| | ative added to bottles? | | Yes | No 🗹 | NA \square | |
| 9. VOA vials ha | ve zero headspace? | | Yes 🗸 | No 🗀 | No VOA Vials | |
| 10. Were any sa | imple containers received | oroken? | Yes | No 🗹 | # of preserved | |
| | ork match bottle labels? cancies on chain of custod | <i>(</i>) | Yes 🗹 | No 🗌 | bottles checked of pH: | >12 unless noted) |
| | correctly identified on Cha | • | Yes 🗸 | No 🗀 | Adjusted? | |
| 13. Is it clear wha | at analyses were requeste | 1? | Yes 🗸 | No 🗌 | • | |
| | ling times able to be met? customer for authorization. |) | Yes 🗹 | No 🗌 | Checked by: | -08/23/19 |
| | lling (if applicable) | • | | | | |
| | otified of all discrepancies | with this order? | Yes 🗌 | No 🗌 | NA 🔽 | |
| Persor | Notified: | Date | | | | |
| By Wh | om: | Via: | eMail | ☐ Phone ☐ Fax | n Person | |
| Regard | ding: | | | | | |
| Client | Instructions: | | | | | |
| 16. Additional re | emarks: | | | | | l |
| CUSTO | ODY SEALS INTACT ON : | SAMPLE BOTTLES/at 8/23/ | 19 | | | |
| 17. Cooler Info | | | - | | | |
| Cooler No | Charles and the control of the contr | Seal Intact Seal No | Seal Date | Signed By | | |
| 1 | 4.3 Good | Yes | e a sai airtimenne ente mili . | ayaan waxaan ka fida da T | <u>.</u> | |
| 2 | 2.8 Good | Yes | | | | |
| 3 | 0.8 Good | Yes | | | | |

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| 10 10 10 10 10 10 10 10 | | | | Project Name: | | | nual GW | | | Š | ww.hal | lenviro | nmenta | al.com | _ | | | |
| Tel. 505-345-407 | Mailing Address: 50 CR 4990 | 50 CR 4990 | | | | Samplin | g Event | 4 | 901 H | awkins | | | uerque | N N | 87109 | | | |
| 1 | Bloomfield, NM 87413 Project #: | | | Project #: | | | | | | 5-345- | 3975 | Fa) | | 345-4 | 107 | | | |
| ### Part | Phone #: 419-421-2338 | 419-421-2338 | 1-2338 | | | | | | | | A | nalysis | Redu | est | | | | |
| 1 | gjmccartney@marathonpetroleum.com Project Manager | Project Manag | Project Manag | | | r. Grego | ry McCartney | | | | | | _ | | | 7 | | |
| 1 | QA/QC Package: ☐ Standard | | X Level 4 (Full Validation) | | | | | | | | (SV | | | | | | Hunty | |
| 1 | Sampler: | Sampler: | - | - | == | acy Payr | ne - 919-561-7055 | | | | | | | | | | /IKS | (1 |
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| | Ğ | | www.hallenvironmental.com | Albuquerane. NM 87109 | Fax 505-345-4107 | Analysis Request | | s,g; | Эд а | 780 | 8/9 | | oitseq 18 | | <u> </u> | | | | | | | + | | |
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| | | Ž | * | 4901 Hawkins NE | Tel. 505-345-3975 | | | | | (1 | .40 | g po | odjeM) 80 | 13 | | | | | | | | | Analytical Methods | |
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| | Time: | □ Rush | 2019 Aı | Sampling Event | | | er: Greg | | | Tracy Payne - 919-561-7055 | ĭ Yes | perature: | 2 Preservative ⁶ Type | 달 | Neat | HNO3 | HNO3 | H ₂ SO ₄ | Neat | 174 | | | | E E |
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| | Turn-Around | X Standard | Project Name: 2019 Annual GW | | Project #: | | Project Manager: Gregory McCartney | | | Sampler: | On Ice: | Sample Tem | Container Type and # | 40ml VOA-5 | 250 ml | 250 ml plastic-1 | 125 ml plastic-1 | 125 ml plastic-1 | 500 ml plastic-1 | 40 Mc VOA-2 | | | Received by: | Received by: |
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| | Chain-of-Custody Record | Client: Western - Bloomfield Terminal | | | 87413 | | Email: gimccartney@marathonpetroleum.com | | X Level 4 (Full Validation) | | | | Sample Request ID | MW-13 | MW-13 | MW-13 | MW-13 | MW-13 | MW-13 | BLANK | | | | |
| | stody | omfield | | 4990 | Bloomfield, NM 87413 | -2338 | athonpetr | | X Level 4 | | | | Sample | | | | | | | TRIP B | | | 4 by: | |
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| 1 | ပ | Client: | | Mailing | | Phone #: | Email: | QAVQC | ☐ Standard | □ Other | X EDD | | Date | 8/21/18 | | | | | \rightarrow | 8/2/9 | | | Date: 8/21/2 | · · · · · |

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| A National Content | ANALYSIS LABC Project Name: 2019 Annual GW Sampling Event | Project Name: 2019 Annual GW Sampling Event Sampling Event Project Manager: Gregory McCartney Sample Time Sampling Event Sampling Event Sampling Event Sampling Event Tel. 505- Tel. 505- Tel. 50 | Chain-of-Custody Record | Turn-Around Time: | | | | * | | | | 2 | | ' <u> </u> | | ļ. |
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| 2 | ij | , E | Albuqueraue, NM 87109 | Fax 505-345-4107 | | | | | | | | -imə2) 0728 | | | × | | ~ | ļ | | + | $\exists \Box$ | | |
| C | 8 | www.hallenvironmental.com | Ź | 345- | lest | | | | | | () | 8560B (VO | X | | | | | | | + | | | |
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| 4 | ANALYSIS | ; | 4901 Hawkins NE | Tel. 505-345-3975 | | | | | | | | EDB (Metho | lacksquare | | | | | | | | Analytical Methods | | |
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| | | | | | | rtney | | | 919-561-7055 | | 4,20 | 2.8C 2.9C HEAL NO. 8 D80 | 205 | 205 | 2002 | 502 | 592 | 120 | B | | l≞ | 7620 Time | 7/20 47 |
| | | ual GW | y Event | | | y McCal | | | | oN □ | 4000 | 000 | | | | | | | | | Date (| 0/21/14 Date | 8/22/19 |
| nd Time: | □ Rush | 2019 Annual GW | Sampling Event | | | er: Gregor | | | Tracy Payne | ₩ Yes | erature: 6/, a | 2. 8 O. 8 O. 8 Type | HCI | NEAT | NEAT | HND. | FUNH | H2504 | NEAT | | 1 1 1 | LABE | J |
| Turn-Around | X Standard | Project Name: | | Project #: | | Project Manager: Gregory McCartney | | | Sampler: | On Ice: | Tem | Container Type and # | 40 ML VOA-5 | 250MC AMBER-1 | 1 L Amber-1 | 250mL AASTK-1 | 125 ML PLASTIC-1 | 125ML AMSTIC-1 | SCOME FLASTICAL | | Received by: | Received by: | Lein |
| | rminal | | | | | | | II Validation) | | | 107 | Sample Request ID | BLANK #1 | | | | | | | | <u> </u> | 186 | |
| Chain-of-Custody Record | Western - Bloomfield Terminal | | 4990 | Bloomfield, NM 87413 | -2338 | Email: ginccartney@marathonpetroleum.com | | X Level 4 (Full Validation) | | | j | Sample R | FIELD P | | | | | | 1 | | 1 | lbv: | T. Park |
| -of-Cu | ırı - Blo | | s: 50 CR 4990 | Bloomf | 419-421-2338 | tney@mai | | • | | EXCEL | | Matrix | 420 | | | | | | 7 | | Relinquished by | Relinduished by: | |
| hain | - 1 | | Mailing Address: | | #: | gjmccar | QA/QC Package: | ndard | er | X EDD (Type)_ | į | Time | ानाव | | | | | | * | | Time: | <u>_63</u> Time: | 1601121198 |
| | Client: | | Mailin | İ | Phone #: | Email: | QAVQC | □ Standard | □ Other | X EDI | | Date | b/\z/8 | | | | | | * | | Date: | Date: | 10 |

Air Bubbles (Y or N) Remarks: See Analytical Methods and Target Analytes. **ANALYSIS LABORATORY** HALL ENVIRONMENTAL 5 OF 18 General Chem. - Alkalinity × Seneral Chem.-Anionasas × × 4901 Hawkins NE - Albuquerque, NM 87109 Dissolved Metals × Fax 505-345-4107 (AOV-ima2) 07S8 × www.hallenvironmental.com **Analysis Request** (AOV) 80828 × 8081 Pesticides / 8082 PCB's Anions (F,Cl,NO₃,NO₂,PO₄,SO₄) RCRA 8 Metals Total × Tel. 505-345-3975 (SMIS0758 to 0158) HA9 EDB (Method 504.1) TPH (Method 418.1) TPH 8015B (GRO/DRO/MRO) × × BTEX+MTBE+TPH(Gas only) BTEX+MTBE+TMB's(8021) 900 200 B 200 99 Tracy Payne - 919-561-7055 200 B 1620 4.3-ck.00- 4.3C Time Project Manager: Gregory McCartney HEAL No. 19080 1 1/12/g Project Name: 2019 Annual GW Sampling Event Date 90 **2**□ 2.5 0.8 Preservative □ Rush HNO3 H₂SO₄ HNO3 Neat Neat Neat Type ᄗ Sample Temperature: ⊈ Yes Turn-Around Time amber 44 X Standard 40mil VOA-5 Type and # 1 liter奖 Container plastic-1 plastic-1 plastic-1 plastic-1 amber-1 125 ml 250 ml 250 ml 125 ml 500 ml Receixed by: ceived by Project #: Sampler: On Ice: X Level 4 (Full Validation) Sample Request ID Chain-of-Custody Record Client: Western - Bloomfield Terminal Email: gjmccartney@marathonpetroleum.com Bloomfield, NM 87413 MW-11 MW-11 **MW-11** MW-11 **MW-11** MW-11 MW-11 419-421-2338 Mailing Address: 50 CR 4990 uished by: Relinquished by Matrix EXCE H₂0 H₂O H₂0 H₂O P₂O P₂O H₂0 140 1630 QA/QC Package: X EDD (Type) Time Time: Time: □ Standard Phone #: □ Other 9/2/19 12/13/10 - PI Date Date:

6 OF ## 7

| Chain-of-Custody Record | Turn-Around Time: | | | | HAI | Ī | > | FNVTRONMENT | Z | <u> </u> | - - | • | |
|---|------------------------------------|------------------------------|----------------------|----------------------|---|----------------------------|-------------------|-----------------------|-------------|-------------|----------------|------------------|--------------|
| Client: Western - Bloomfield Terminal | X Standard | | | · · | ANALYSIS LABORATORY | | SI | _ ≤ | 80 | 7 | | S S | |
| | Project Name: 2019 Annual GW | MS. | | | www. | www.hallenvironmental.com | ironr | ental. |) E | | ! ! | | |
| Mailing Address: 50 CR 4990 | Sampling Event | ent | 490 | 1 Haw | 4901 Hawkins NE | - 1 | enbn | Albuquerque, NM 87109 | N N N | 7109 | | | |
| Bloomfield, NM 87413 | Project #: | ļ | Tel | 505- | Tel. 505-345-3975 | ıo | | Fax 505-345-4107 | 541 | 27 | | | |
| Phone #: 419-421-2338 | | | | | | Inal | sis R | Request | st | | | | |
| Email: gjmccartney@marathonpetroleum.com | Project Manager: Gregory McCartney | Cartney | ┡ | (1 | | | | | | | 7 | | |
| QA/QC Package: | | | (մլս | | | | ([†] O | s,8; | | | | ry | |
| ☐ Standard X Level 4 (Full Validation) | | | o se | W/O | (0) | | S' [†] O | БС | | | | iiuil | |
| □ Other | Sampler: Tracy Payne - 91 | 919-561-7055 | (G | | (1 | | q, _s c | 2808 | | | | /IK9 | () |
| X EDD (Type) EXCEL | | | ΙДТ | | ` Þ 0 | | N'ε | 8 / 5 | (A | sje | | / - · | A 10 |
| | ر م | 1243C | .+ 3 | | g po | | ON' | | • | JəN | | |) (Y |
| Date Time Matrix Sample Request ID | 2.8.2. or 19.0.1 | -0 = 2.7°C HEAL NO, forth | 8TM+X3T8 8TM+X3T8 | BB108 H9T | EDB (Metho | PAH (8310 BCRA 8 Me | IO,4) enoinA | 8081 Pestic | -imə2) 0728 | Dissolved I | General Ch | General Ch | Rir Bubbles |
| 84/9 - H2O DURICATE #1 | 40 ML-5 HZL | 5007 | | X | | | | <u> </u> | ļ. — | | _ | | ' |
| | 250ML AMBER-1 NEAT | 727 | | X | | | | | | | | | |
| | AMBER-1 NEAT | 201 | | | | | | | X | | | | |
| | | 102 | | | | X | | | | | | | |
| | PLASTIC HNOS | 100 | | | | | | | | X | × | | |
| | PLASTIC-1 Hz. 304 | 267 | | | | | | | | | \overline{x} | | |
| 7 7 7 | Scome NEAT | 102 | | | | | | : | | | | X | |
| | | ļ | | | | | | . 3 | | | | |] |
| 94/9 - 420 TRIP BLANK | YOA-3 HCI | 200 | | | | | | * | | | + | | \Box |
| Pate: Time: Relinquished by: | Received by: Date | Time | Remarks: | See | See Analytical Methods and Target Analytes. | ical N | √leth(| ods a | nd T | arge | \#\ ₩ | alyte | S. |
| Date: Time: Refinquished by: | | | | | | | | | | | | | - |
| 12/11/8301 (N W S | | 11/11/2 OF 25 | | | | | | | | | | | |

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TABLE 2

Analytical Methods and Target Analytes Facility-Wide Groundwater Monitoring Plan - June 2014 Western Refining Southwest, Inc. - Bloomfield Terminal

| VO | Cs (EPA Method 8260B) (1) |
|-----------------|---|
| - Ta | rget List |
| | Benzene |
| | Toluene |
| | Ethylbenzene |
| | Xylenes |
| | Methyl tert butyl ether (MTBE) |
| SVC | OCs - (EPA Method 8270) |
| | - Method List |
| [PF | I-GRO (EPA Method 8015B) |
| | - Gasoline Range Organics |
| rpi: | I-DRO (EPA Method 8015B) |
| | - Diesel Range Organics |
| | - Motor Oil Range Organics |
| Cota | l Carbon Dioxide (Laboratory Calculated) |
| | - Dissolved CO2 |
| Spec | ific Conductivity (EPA Method 120.1 or field measurement) |
| | - Specific conductance |
| 'DS | (EPA Method 160.1 or field measurement) |
| | - Total dissolved solids |
| l en | eral Chemistry - Anions (EPA Method 300.0) |
| | Fluoride |
| | Chloride |
| | Bromide |
| | Nitrogen, Nitrite (as N) |
| | Nitrogen, Nitrate (as N) |
| | Phosphorous, Orthophosphate (As P) |
| | Sulfate |
| ene | eral Chemistry - Alkalinity (EPA Method 310.1) |
| | Alkalinity, Total |
| | Carbonate |
| | Bicarbonate |

| Total Recoverable Metals (EI | PA Method 6010B/7470) | | | | | | | | | |
|--|--------------------------------|--|--|--|--|--|--|--|--|--|
| - Target List (not applicable to | River Terrace Sampling Events) | | | | | | | | | |
| Arsenic | Lead | | | | | | | | | |
| Barium | Mercury | | | | | | | | | |
| Cadmium | Selenium | | | | | | | | | |
| Chromium | Silver | | | | | | | | | |
| - Target List (for River Terrace | Sampling Events Only) | | | | | | | | | |
| Lead | · · | | | | | | | | | |
| Mercury (DW-1 ON | LY) | | | | | | | | | |
| | | | | | | | | | | |
| Dissolved Metals (EPA Metho | | | | | | | | | | |
| - Target List (for Refinery Complex, Outfalls, and River) Arsenic Manganese | | | | | | | | | | |
| Arsenic Manganese | | | | | | | | | | |
| Barium | Mercury | | | | | | | | | |
| Cadmium | Potassium | | | | | | | | | |
| Calcium | Selenium | | | | | | | | | |
| Chromium | Silver | | | | | | | | | |
| Copper | Sodium | | | | | | | | | |
| Iron | Uranium | | | | | | | | | |
| Lead | Zinc | | | | | | | | | |
| Magnesium | | | | | | | | | | |
| | | | | | | | | | | |

TPH = total petroleum hydrocarbons GRO = gasoline range organics VOCs = volatile organic compounds DRO = diesel range organics TDS = total dissolved solids

NOTES:

- (1) VOCs Target List for River Terrace samples are analyzed by EPA Method 8021B per NMED's letter Approval with Direction dated June 16, 2009.
- (2) Target List for San Juan River Terrace Monitoring Wells and Piezomenter Wells only, per the River Terrace Bioventing System Monitoring Plan.



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

September 30, 2019

Gregory J. McCartney Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4135 FAX: (505) 632-3911

RE: 2019 Annual GW Sampling Event OrderNo.: 1908E25

Dear Gregory J. McCartney:

Hall Environmental Analysis Laboratory received 7 sample(s) on 8/23/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com **Case Narrative**

WO#: **1908E25**Date: **9/30/2019**

CLIENT: Western Refining Southwest, Inc. **Project:** 2019 Annual GW Sampling Event

Analytical Notes Regarding EPA Method 8270: The method blank had poor surrogate recoveries.

Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-32

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 7:20:00 AM

 Lab ID: 1908E25-001
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed I | Batch ID |
|-----------------------------------|----------|----------|----------|------|-------|----|-----------------------|----------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | | Analyst: JME | |
| Diesel Range Organics (DRO) | ND | 0.13 | 0.40 | | mg/L | 1 | 8/28/2019 11:06:18 PM | 1 47076 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | 2.5 | | mg/L | 1 | 8/28/2019 11:06:18 PM | 1 47076 |
| Surr: DNOP | 120 | 0 | 52.7-168 | | %Rec | 1 | 8/28/2019 11:06:18 PM | 1 47076 |
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CAS | |
| Fluoride | ND | 0.073 | 0.50 | | mg/L | 5 | 9/9/2019 10:15:09 AM | R62780 |
| Chloride | 740 | 25 | 25 | * | mg/L | 50 | 9/10/2019 5:29:20 PM | R62809 |
| Bromide | 4.4 | 0.089 | 0.50 | | mg/L | 5 | 9/9/2019 10:15:09 AM | R62780 |
| Phosphorus, Orthophosphate (As P) | ND | 1.2 | 2.5 | Н | mg/L | 5 | 9/9/2019 10:15:09 AM | R62780 |
| Sulfate | 1800 | 3.3 | 25 | * | mg/L | 50 | 9/10/2019 5:29:20 PM | R62809 |
| Nitrate+Nitrite as N | 37 | 0.097 | 2.0 | * | mg/L | 10 | 9/13/2019 1:04:29 PM | R62940 |
| EPA METHOD 7470: MERCURY | | | | | | | Analyst: rde | |
| Mercury | 0.000054 | 0.000038 | 0.00020 | J | mg/L | 1 | 9/12/2019 2:01:18 PM | 47428 |
| EPA METHOD 6010B: DISSOLVED ME | TALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.019 | 0.020 | | mg/L | 1 | 9/9/2019 12:25:00 PM | A62764 |
| Barium | 0.018 | 0.00056 | 0.020 | J | mg/L | 1 | 9/9/2019 9:34:34 AM | A62764 |
| Cadmium | ND | 0.00058 | 0.0020 | | mg/L | 1 | 9/9/2019 9:34:34 AM | A62764 |
| Calcium | 320 | 0.60 | 10 | | mg/L | 10 | 9/11/2019 1:00:05 PM | A62841 |
| Chromium | ND | 0.0012 | 0.0060 | | mg/L | 1 | 9/9/2019 9:34:34 AM | A62764 |
| Copper | ND | 0.0023 | 0.0060 | | mg/L | 1 | 9/9/2019 9:34:34 AM | A62764 |
| Iron | ND | 0.0054 | 0.020 | | mg/L | 1 | 9/9/2019 9:34:34 AM | A62764 |
| Lead | ND | 0.0048 | 0.0050 | | mg/L | 1 | 9/9/2019 9:34:34 AM | A62764 |
| Magnesium | 50 | 0.061 | 1.0 | | mg/L | 1 | 9/9/2019 9:34:34 AM | A62764 |
| Manganese | ND | 0.00026 | 0.0020 | | mg/L | 1 | 9/9/2019 9:34:34 AM | A62764 |
| Potassium | 3.7 | 0.11 | 1.0 | | mg/L | 1 | 9/9/2019 9:34:34 AM | A62764 |
| Selenium | ND | 0.041 | 0.050 | | mg/L | 1 | 9/9/2019 9:34:34 AM | A62764 |
| Silver | 0.0049 | 0.0013 | 0.0050 | J | mg/L | 1 | 9/9/2019 9:34:34 AM | A62764 |
| Sodium | 800 | 2.4 | 10 | | mg/L | 10 | 9/9/2019 12:30:44 PM | A62764 |
| Uranium | ND | 0.062 | 0.10 | | mg/L | 1 | 9/9/2019 12:25:00 PM | A62764 |
| Zinc | 0.020 | 0.0026 | 0.020 | | mg/L | 1 | 9/9/2019 9:34:34 AM | A62764 |
| EPA 6010B: TOTAL RECOVERABLE N | METALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.015 | 0.020 | | mg/L | 1 | 9/5/2019 2:12:07 PM | 47071 |
| Barium | 0.024 | 0.0012 | 0.020 | | mg/L | 1 | 9/5/2019 2:12:07 PM | 47071 |
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 2:12:07 PM | 47071 |
| Chromium | ND | 0.00086 | 0.0060 | | mg/L | 1 | 9/5/2019 2:12:07 PM | 47071 |
| Lead | ND | 0.0035 | 0.0050 | | mg/L | 1 | 9/5/2019 2:12:07 PM | 47071 |
| Selenium | ND | 0.035 | 0.050 | | mg/L | 1 | 9/5/2019 2:12:07 PM | 47071 |
| Silver | 0.0045 | 0.00055 | 0.0050 | J | mg/L | 1 | 9/5/2019 2:12:07 PM | 47071 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-32

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 7:20:00 AM

 Lab ID:
 1908E25-001
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

Result **Qual Units** DF **Date Analyzed Batch ID Analyses MDL** RL**EPA METHOD 8260B: VOLATILES** Analyst: RAA ND 1.0 8/27/2019 4:28:23 PM R62453 Benzene 0.17 µg/L 1 Toluene ND 0.35 1.0 μg/L 1 8/27/2019 4:28:23 PM R62453 Ethylbenzene ND 0.13 1.0 μg/L 1 8/27/2019 4:28:23 PM R62453 μg/L Methyl tert-butyl ether (MTBE) ND 0.46 8/27/2019 4:28:23 PM R62453 1.0 1 1,2,4-Trimethylbenzene ND 0.21 1 1.0 µg/L 8/27/2019 4:28:23 PM R62453 1.3.5-Trimethylbenzene ND 0.19 1.0 ua/L 1 8/27/2019 4:28:23 PM R62453 1,2-Dichloroethane (EDC) ND 0.19 µg/L 1 8/27/2019 4:28:23 PM R62453 1.0 1,2-Dibromoethane (EDB) ND 0.17 1.0 μg/L 1 8/27/2019 4:28:23 PM R62453 0.28 1 Naphthalene ND 2.0 µg/L 8/27/2019 4:28:23 PM R62453 1-Methylnaphthalene ND 0.31 4.0 μg/L 1 8/27/2019 4:28:23 PM R62453 0.35 2-Methylnaphthalene ND 4.0 µg/L 1 8/27/2019 4:28:23 PM R62453 Acetone ND 1.2 10 µg/L 1 8/27/2019 4:28:23 PM R62453 Bromobenzene ND 0.24 1.0 µg/L 1 8/27/2019 4:28:23 PM R62453 Bromodichloromethane ND 0.13 1.0 μg/L 1 8/27/2019 4:28:23 PM R62453 ND 0.29 1 8/27/2019 4:28:23 PM R62453 Bromoform 1.0 µg/L ND 0.27 3.0 1 R62453 Bromomethane µg/L 8/27/2019 4:28:23 PM 2-Butanone ND 2.1 10 µg/L 1 8/27/2019 4:28:23 PM R62453 ND Carbon disulfide 0.45 10 µg/L 1 8/27/2019 4:28:23 PM R62453 Carbon Tetrachloride ND 0.14 1.0 µg/L 1 8/27/2019 4:28:23 PM R62453 Chlorobenzene ND 0.19 1.0 µg/L 1 8/27/2019 4:28:23 PM R62453 Chloroethane ND 0.18 2.0 1 µg/L 8/27/2019 4:28:23 PM R62453 Chloroform ND 0.12 1.0 µg/L 1 8/27/2019 4:28:23 PM R62453 Chloromethane ND 0.32 3.0 1 R62453 µg/L 8/27/2019 4:28:23 PM 2-Chlorotoluene ND 0.25 8/27/2019 4:28:23 PM R62453 1.0 µg/L 1 ND 0.23 4-Chlorotoluene 1.0 µg/L 1 8/27/2019 4:28:23 PM R62453 cis-1,2-DCE ND 0.19 1.0 µg/L 1 8/27/2019 4:28:23 PM R62453 cis-1,3-Dichloropropene ND 0.14 μg/L 1 R62453 1.0 8/27/2019 4:28:23 PM 1,2-Dibromo-3-chloropropane ND 0.33 2.0 µg/L 1 8/27/2019 4:28:23 PM R62453 Dibromochloromethane ND 0.24 1 1.0 µg/L 8/27/2019 4:28:23 PM R62453 8/27/2019 4:28:23 PM Dibromomethane ND 0.21 1.0 µg/L 1 R62453 1,2-Dichlorobenzene ND 0.30 1.0 µg/L 1 8/27/2019 4:28:23 PM R62453 1,3-Dichlorobenzene ND 0.25 1.0 μg/L 1 8/27/2019 4:28:23 PM R62453 1,4-Dichlorobenzene ND 0.29 1.0 µg/L 1 8/27/2019 4:28:23 PM R62453 ND Dichlorodifluoromethane 0.26 1.0 μg/L 1 R62453 8/27/2019 4:28:23 PM 1,1-Dichloroethane ND 0.14 1 R62453 1.0 µg/L 8/27/2019 4:28:23 PM 1,1-Dichloroethene ND 0.21 1.0 µg/L 1 8/27/2019 4:28:23 PM R62453 1 1,2-Dichloropropane ND 0.21 1.0 µg/L 8/27/2019 4:28:23 PM R62453 1,3-Dichloropropane ND 0.20 μg/L 1 8/27/2019 4:28:23 PM R62453 1.0 2,2-Dichloropropane ND 0.23 2.0 µg/L 8/27/2019 4:28:23 PM R62453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-32

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 7:20:00 AM

 Lab ID: 1908E25-001
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed H | Batch ID |
|----------------------------------|--------|-------|--------|------|--------|------|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: RAA | |
| 1,1-Dichloropropene | ND | 0.16 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| Hexachlorobutadiene | ND | 0.31 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| 2-Hexanone | ND | 1.5 | 10 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| Isopropylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| 4-Isopropyltoluene | ND | 0.22 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| 4-Methyl-2-pentanone | ND | 0.71 | 10 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| Methylene Chloride | ND | 0.15 | 3.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| n-Butylbenzene | ND | 0.23 | 3.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| n-Propylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| sec-Butylbenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| Styrene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| tert-Butylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| 1,1,1,2-Tetrachloroethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| 1,1,2,2-Tetrachloroethane | ND | 0.55 | 2.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| Tetrachloroethene (PCE) | ND | 0.15 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| trans-1,2-DCE | ND | 0.18 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| trans-1,3-Dichloropropene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| 1,2,3-Trichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| 1,2,4-Trichlorobenzene | ND | 0.20 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| 1,1,1-Trichloroethane | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| 1,1,2-Trichloroethane | ND | 0.22 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| Trichloroethene (TCE) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| Trichlorofluoromethane | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| 1,2,3-Trichloropropane | ND | 0.30 | 2.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| Vinyl chloride | ND | 0.18 | 1.0 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| Xylenes, Total | ND | 0.45 | 1.5 | | μg/L | 1 | 8/27/2019 4:28:23 PM | R62453 |
| Surr: 1,2-Dichloroethane-d4 | 94.8 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 4:28:23 PM | R62453 |
| Surr: 4-Bromofluorobenzene | 95.0 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 4:28:23 PM | R62453 |
| Surr: Dibromofluoromethane | 101 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 4:28:23 PM | R62453 |
| Surr: Toluene-d8 | 102 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 4:28:23 PM | R62453 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: RAA | |
| Gasoline Range Organics (GRO) | ND | 0.031 | 0.050 | | mg/L | 1 | 8/27/2019 4:28:23 PM | GW624 |
| Surr: BFB | 98.5 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 4:28:23 PM | GW624 |
| CARBON DIOXIDE | | | | | | | Analyst: JRR | |
| Total Carbon Dioxide | 160 | 0 | 1.0 | Н | mg CO2 | 2/ 1 | 8/26/2019 7:09:06 PM | R62429 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | | Analyst: JRR | |
| Conductivity | 5300 | 5.0 | 5.0 | | µmhos/ | c 1 | 8/26/2019 7:09:06 PM | R62429 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-32

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/22/2019 7:20:00 AM

Lab ID: 1908E25-001 **Matrix:** AQUEOUS **Received Date:** 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|-------|-------|------|---------|-----|----------------------|----------|
| SM2320B: ALKALINITY | | | | | | | Analyst: JRF | R |
| Bicarbonate (As CaCO3) | 178.6 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/26/2019 7:09:06 PM | R62429 |
| Carbonate (As CaCO3) | ND | 2.000 | 2.000 | | mg/L Ca | a 1 | 8/26/2019 7:09:06 PM | R62429 |
| Total Alkalinity (as CaCO3) | 178.6 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/26/2019 7:09:06 PM | R62429 |
| SM2540C MOD: TOTAL DISSOLVED SOLID | S | | | | | | Analyst: JM 1 | Г |
| Total Dissolved Solids | 3830 | 40.0 | 40.0 | *D | mg/L | 1 | 8/29/2019 1:58:00 PM | 47121 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-27

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 8:00:00 AM

 Lab ID: 1908E25-002
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed I | Batch ID |
|-----------------------------------|----------|----------|----------|------|-------|---------------------|-----------------------|----------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | Analyst: JME | | |
| Diesel Range Organics (DRO) | 0.23 | 0.13 | 0.40 | J | mg/L | 1 | 8/28/2019 11:30:56 PM | 47076 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | 2.5 | | mg/L | 1 | 8/28/2019 11:30:56 PM | 47076 |
| Surr: DNOP | 123 | 0 | 52.7-168 | | %Rec | 1 | 8/28/2019 11:30:56 PM | 47076 |
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CAS | |
| Fluoride | 0.11 | 0.073 | 0.50 | J | mg/L | 5 | 9/9/2019 11:06:37 AM | R62780 |
| Chloride | 960 | 50 | 50 | * | mg/L | 100 | 9/10/2019 5:41:44 PM | R62809 |
| Bromide | 9.5 | 0.089 | 0.50 | | mg/L | 5 | 9/9/2019 11:06:37 AM | R62780 |
| Phosphorus, Orthophosphate (As P) | ND | 1.2 | 2.5 | Н | mg/L | 5 | 9/9/2019 11:06:37 AM | R62780 |
| Sulfate | 2900 | 6.7 | 50 | * | mg/L | 100 | 9/10/2019 5:41:44 PM | R62809 |
| Nitrate+Nitrite as N | ND | 0.048 | 1.0 | | mg/L | 5 | 9/9/2019 2:32:30 PM | R62780 |
| EPA METHOD 7470: MERCURY | | | | | | | Analyst: rde | |
| Mercury | 0.000055 | 0.000038 | 0.00020 | J | mg/L | 1 | 9/12/2019 2:03:31 PM | 47428 |
| EPA 6010B: TOTAL RECOVERABLE ME | TALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.015 | 0.020 | | mg/L | 1 | 9/5/2019 2:17:07 PM | 47071 |
| Barium | 0.059 | 0.0012 | 0.020 | | mg/L | 1 | 9/5/2019 2:17:07 PM | 47071 |
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 2:17:07 PM | 47071 |
| Chromium | ND | 0.00086 | 0.0060 | | mg/L | 1 | 9/5/2019 2:17:07 PM | 47071 |
| Lead | ND | 0.0035 | 0.0050 | | mg/L | 1 | 9/5/2019 2:17:07 PM | 47071 |
| Selenium | ND | 0.035 | 0.050 | | mg/L | 1 | 9/5/2019 2:17:07 PM | 47071 |
| Silver | 0.0086 | 0.00055 | 0.0050 | | mg/L | 1 | 9/5/2019 2:17:07 PM | 47071 |
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: RAA | |
| Benzene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Toluene | ND | 0.35 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Ethylbenzene | ND | 0.13 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Methyl tert-butyl ether (MTBE) | ND | 0.46 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| 1,2,4-Trimethylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| 1,3,5-Trimethylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| 1,2-Dichloroethane (EDC) | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| 1,2-Dibromoethane (EDB) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Naphthalene | ND | 0.28 | 2.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| 1-Methylnaphthalene | ND | 0.31 | 4.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| 2-Methylnaphthalene | ND | 0.35 | 4.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Acetone | ND | 1.2 | 10 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Bromobenzene | ND | 0.24 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Bromodichloromethane | ND | 0.13 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Bromoform | ND | 0.29 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Bromomethane | ND | 0.27 | 3.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-27

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 8:00:00 AM

 Lab ID: 1908E25-002
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual Units | DF | Date Analyzed | Batch ID | | |
|-----------------------------|--------|------|-----|------------|----|----------------------|----------|--|--|
| EPA METHOD 8260B: VOLATILES | | | | | | Analyst: RAA | | | |
| 2-Butanone | ND | 2.1 | 10 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| Carbon disulfide | ND | 0.45 | 10 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| Carbon Tetrachloride | ND | 0.14 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| Chlorobenzene | ND | 0.19 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| Chloroethane | ND | 0.18 | 2.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| Chloroform | ND | 0.12 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| Chloromethane | ND | 0.32 | 3.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 2-Chlorotoluene | ND | 0.25 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 4-Chlorotoluene | ND | 0.23 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| cis-1,2-DCE | ND | 0.19 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| cis-1,3-Dichloropropene | ND | 0.14 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 1,2-Dibromo-3-chloropropane | ND | 0.33 | 2.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| Dibromochloromethane | ND | 0.24 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| Dibromomethane | ND | 0.21 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 1,2-Dichlorobenzene | ND | 0.30 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 1,3-Dichlorobenzene | ND | 0.25 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 1,4-Dichlorobenzene | ND | 0.29 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| Dichlorodifluoromethane | ND | 0.26 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 1,1-Dichloroethane | ND | 0.14 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 1,1-Dichloroethene | ND | 0.21 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 1,2-Dichloropropane | ND | 0.21 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 1,3-Dichloropropane | ND | 0.20 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 2,2-Dichloropropane | ND | 0.23 | 2.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 1,1-Dichloropropene | ND | 0.16 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| Hexachlorobutadiene | ND | 0.31 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 2-Hexanone | ND | 1.5 | 10 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| Isopropylbenzene | ND | 0.19 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 4-Isopropyltoluene | ND | 0.22 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 4-Methyl-2-pentanone | ND | 0.71 | 10 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| Methylene Chloride | ND | 0.15 | 3.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| n-Butylbenzene | ND | 0.23 | 3.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| n-Propylbenzene | ND | 0.21 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| sec-Butylbenzene | ND | 0.25 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| Styrene | ND | 0.19 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| tert-Butylbenzene | ND | 0.21 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.21 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.55 | 2.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| Tetrachloroethene (PCE) | ND | 0.15 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |
| trans-1,2-DCE | ND | 0.18 | 1.0 | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 | | |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-27

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 8:00:00 AM

 Lab ID: 1908E25-002
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed H | Batch ID |
|----------------------------------|--------|-------|--------|------|---------|------|-----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: RAA | |
| trans-1,3-Dichloropropene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| 1,2,3-Trichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| 1,2,4-Trichlorobenzene | ND | 0.20 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| 1,1,1-Trichloroethane | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| 1,1,2-Trichloroethane | ND | 0.22 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Trichloroethene (TCE) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Trichlorofluoromethane | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| 1,2,3-Trichloropropane | ND | 0.30 | 2.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Vinyl chloride | ND | 0.18 | 1.0 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Xylenes, Total | ND | 0.45 | 1.5 | | μg/L | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Surr: 1,2-Dichloroethane-d4 | 96.2 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Surr: 4-Bromofluorobenzene | 98.6 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Surr: Dibromofluoromethane | 99.1 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 4:57:24 PM | R62453 |
| Surr: Toluene-d8 | 100 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 4:57:24 PM | R62453 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: RAA | |
| Gasoline Range Organics (GRO) | ND | 0.031 | 0.050 | | mg/L | 1 | 8/27/2019 4:57:24 PM | GW624 |
| Surr: BFB | 99.6 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 4:57:24 PM | GW624 |
| CARBON DIOXIDE | | | | | | | Analyst: JRR | |
| Total Carbon Dioxide | 230 | 0 | 1.0 | Н | mg CO2 | 2/ 1 | 8/28/2019 10:34:42 PM | R62496 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | | Analyst: JRR | |
| Conductivity | 7300 | 5.0 | 5.0 | | µmhos/ | c 1 | 8/28/2019 10:34:42 PM | R62496 |
| SM2320B: ALKALINITY | | | | | | | Analyst: JRR | |
| Bicarbonate (As CaCO3) | 250.6 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/28/2019 10:34:42 PM | R62496 |
| Carbonate (As CaCO3) | ND | 2.000 | 2.000 | | mg/L Ca | | 8/28/2019 10:34:42 PM | R62496 |
| Total Alkalinity (as CaCO3) | 250.6 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/28/2019 10:34:42 PM | R62496 |
| SM2540C MOD: TOTAL DISSOLVED SOL | IDS | | | | | | Analyst: JMT | |
| Total Dissolved Solids | 4990 | 200 | 200 | *D | mg/L | 1 | 8/29/2019 1:58:00 PM | 47121 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-38

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 8:45:00 AM

 Lab ID: 1908E25-003
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|-----------------------------------|----------|----------|----------|------|-------|---------------------|-----------------------|----------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | Analyst: JME | _ | |
| Diesel Range Organics (DRO) | ND | 0.13 | 0.40 | | mg/L | 1 | 8/28/2019 11:55:33 PM | 1 47076 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | 2.5 | | mg/L | 1 | 8/28/2019 11:55:33 PM | 1 47076 |
| Surr: DNOP | 129 | 0 | 52.7-168 | | %Rec | 1 | 8/28/2019 11:55:33 PM | 1 47076 |
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CAS | |
| Fluoride | 0.61 | 0.073 | 0.50 | | mg/L | 5 | 9/9/2019 11:58:05 AM | R62780 |
| Chloride | 170 | 10 | 10 | | mg/L | 20 | 9/9/2019 12:10:56 PM | R62780 |
| Bromide | 2.3 | 0.089 | 0.50 | | mg/L | 5 | 9/9/2019 11:58:05 AM | R62780 |
| Phosphorus, Orthophosphate (As P) | ND | 1.2 | 2.5 | Н | mg/L | 5 | 9/9/2019 11:58:05 AM | R62780 |
| Sulfate | 13 | 0.33 | 2.5 | | mg/L | 5 | 9/9/2019 11:58:05 AM | R62780 |
| Nitrate+Nitrite as N | 0.097 | 0.048 | 1.0 | J | mg/L | 5 | 9/9/2019 2:45:22 PM | R62780 |
| EPA METHOD 7470: MERCURY | | | | | | | Analyst: rde | |
| Mercury | 0.000044 | 0.000038 | 0.00020 | J | mg/L | 1 | 9/12/2019 2:10:12 PM | 47428 |
| EPA METHOD 6010B: DISSOLVED ME | TALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.019 | 0.020 | | mg/L | 1 | 9/9/2019 12:32:32 PM | A62764 |
| Barium | 0.55 | 0.00056 | 0.020 | | mg/L | 1 | 9/9/2019 9:45:54 AM | A62764 |
| Cadmium | ND | 0.00058 | 0.0020 | | mg/L | 1 | 9/9/2019 9:45:54 AM | A62764 |
| Calcium | 130 | 0.30 | 5.0 | | mg/L | 5 | 9/9/2019 9:47:43 AM | A62764 |
| Chromium | ND | 0.0012 | 0.0060 | | mg/L | 1 | 9/9/2019 9:45:54 AM | A62764 |
| Copper | ND | 0.0023 | 0.0060 | | mg/L | 1 | 9/9/2019 9:45:54 AM | A62764 |
| Iron | 0.18 | 0.0054 | 0.020 | | mg/L | 1 | 9/9/2019 9:45:54 AM | A62764 |
| Lead | ND | 0.0048 | 0.0050 | | mg/L | 1 | 9/9/2019 9:45:54 AM | A62764 |
| Magnesium | 21 | 0.061 | 1.0 | | mg/L | 1 | 9/9/2019 9:45:54 AM | A62764 |
| Manganese | 2.8 | 0.0013 | 0.010 | | mg/L | 5 | 9/9/2019 9:47:43 AM | A62764 |
| Potassium | 2.3 | 0.11 | 1.0 | | mg/L | 1 | 9/9/2019 9:45:54 AM | A62764 |
| Selenium | ND | 0.041 | 0.050 | | mg/L | 1 | 9/9/2019 9:45:54 AM | A62764 |
| Silver | 0.0018 | 0.0013 | 0.0050 | J | mg/L | 1 | 9/9/2019 9:45:54 AM | A62764 |
| Sodium | 220 | 1.2 | 5.0 | | mg/L | 5 | 9/9/2019 9:47:43 AM | A62764 |
| Uranium | ND | 0.062 | 0.10 | | mg/L | 1 | 9/9/2019 9:45:54 AM | A62764 |
| Zinc | 0.025 | 0.0026 | 0.020 | | mg/L | 1 | 9/9/2019 9:45:54 AM | A62764 |
| EPA 6010B: TOTAL RECOVERABLE M | ETALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.015 | 0.020 | | mg/L | 1 | 9/5/2019 2:18:47 PM | 47071 |
| Barium | 0.56 | 0.0012 | 0.020 | | mg/L | 1 | 9/5/2019 2:18:47 PM | 47071 |
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 2:18:47 PM | 47071 |
| Chromium | 0.0070 | 0.00086 | 0.0060 | | mg/L | 1 | 9/5/2019 2:18:47 PM | 47071 |
| Lead | ND | 0.0035 | 0.0050 | | mg/L | 1 | 9/5/2019 2:18:47 PM | 47071 |
| Selenium | ND | 0.035 | 0.050 | | mg/L | 1 | 9/5/2019 2:18:47 PM | 47071 |
| Silver | ND | 0.00055 | 0.0050 | | mg/L | 1 | 9/5/2019 2:18:47 PM | 47071 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-38

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/22/2019 8:45:00 AM

 Lab ID:
 1908E25-003
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|-----|----|------------|----|---------------------|----------|
| EPA METHOD 8270C: SEMIVOLATILES | | | | | | Analyst: D A | M |
| Acenaphthene | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Acenaphthylene | ND | 2.4 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Aniline | ND | 3.6 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Anthracene | ND | 2.7 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Azobenzene | ND | 3.3 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Benz(a)anthracene | ND | 3.6 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Benzo(a)pyrene | ND | 3.5 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Benzo(b)fluoranthene | ND | 3.4 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Benzo(g,h,i)perylene | ND | 2.2 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Benzo(k)fluoranthene | ND | 2.9 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Benzoic acid | ND | 11 | 20 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Benzyl alcohol | ND | 2.4 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Bis(2-chloroethoxy)methane | ND | 2.6 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Bis(2-chloroethyl)ether | ND | 3.2 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Bis(2-chloroisopropyl)ether | ND | 3.9 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Bis(2-ethylhexyl)phthalate | ND | 4.3 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| 4-Bromophenyl phenyl ether | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Butyl benzyl phthalate | ND | 3.3 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Carbazole | ND | 2.9 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| 4-Chloro-3-methylphenol | ND | 3.4 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| 4-Chloroaniline | ND | 2.3 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| 2-Chloronaphthalene | ND | 3.1 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| 2-Chlorophenol | ND | 2.7 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| 4-Chlorophenyl phenyl ether | ND | 2.4 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Chrysene | ND | 2.8 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Di-n-butyl phthalate | ND | 2.7 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Di-n-octyl phthalate | ND | 3.5 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Dibenz(a,h)anthracene | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Dibenzofuran | ND | 3.2 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| 1,2-Dichlorobenzene | ND | 4.8 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| 1,3-Dichlorobenzene | ND | 5.3 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| 1,4-Dichlorobenzene | ND | 4.4 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| 3,3´-Dichlorobenzidine | ND | 2.8 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Diethyl phthalate | ND | 2.9 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| Dimethyl phthalate | ND | 3.2 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| 2,4-Dichlorophenol | ND | 2.9 | 20 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| 2,4-Dimethylphenol | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| 4,6-Dinitro-2-methylphenol | ND | 2.9 | 20 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |
| 2,4-Dinitrophenol | ND | 2.6 | 20 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-38

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 8:45:00 AM

 Lab ID: 1908E25-003
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | , RL | Qual Units | DF | Date Analyzed | Batch ID | | |
|---------------------------------|--------|-----|----------|------------|----|---------------------|----------|--|--|
| EPA METHOD 8270C: SEMIVOLATILES | | | | | | Analyst: DAM | | | |
| 2,4-Dinitrotoluene | ND | 3.8 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| 2,6-Dinitrotoluene | ND | 2.4 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Fluoranthene | ND | 2.4 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Fluorene | ND | 2.9 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Hexachlorobenzene | ND | 3.1 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Hexachlorobutadiene | ND | 4.7 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Hexachlorocyclopentadiene | ND | 3.6 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Hexachloroethane | ND | 4.8 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Indeno(1,2,3-cd)pyrene | ND | 2.7 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Isophorone | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| 1-Methylnaphthalene | ND | 3.1 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| 2-Methylnaphthalene | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| 2-Methylphenol | ND | 2.9 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| 3+4-Methylphenol | ND | 3.6 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| N-Nitrosodi-n-propylamine | ND | 6.5 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| N-Nitrosodimethylamine | ND | 5.0 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| N-Nitrosodiphenylamine | ND | 2.4 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Naphthalene | ND | 4.1 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| 2-Nitroaniline | ND | 3.2 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| 3-Nitroaniline | ND | 3.2 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| 4-Nitroaniline | ND | 2.7 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Nitrobenzene | ND | 2.8 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| 2-Nitrophenol | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| 4-Nitrophenol | ND | 7.6 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Pentachlorophenol | ND | 2.7 | 20 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Phenanthrene | ND | 2.8 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Phenol | ND | 8.0 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Pyrene | ND | 2.5 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Pyridine | ND | 9.6 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| 1,2,4-Trichlorobenzene | ND | 4.0 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| 2,4,5-Trichlorophenol | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| 2,4,6-Trichlorophenol | ND | 2.3 | 10 | μg/L | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Surr: 2-Fluorophenol | 42.7 | 0 | 15-101 | %Rec | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Surr: Phenol-d5 | 34.6 | 0 | 15-84.6 | %Rec | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Surr: 2,4,6-Tribromophenol | 53.3 | 0 | 27.8-112 | %Rec | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Surr: Nitrobenzene-d5 | 81.0 | 0 | 33-113 | %Rec | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Surr: 2-Fluorobiphenyl | 65.8 | 0 | 26.6-107 | %Rec | 1 | 9/5/2019 3:38:26 PM | 47113 | | |
| Surr: 4-Terphenyl-d14 | 69.3 | 0 | 18.7-148 | %Rec | 1 | 9/5/2019 3:38:26 PM | 47113 | | |

EPA METHOD 8260B: VOLATILES

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Analyst: RAA

Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-38

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 8:45:00 AM

 Lab ID:
 1908E25-003
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

Result **Qual Units** DF **Date Analyzed Batch ID Analyses MDL** RL**EPA METHOD 8260B: VOLATILES** Analyst: RAA ND 1.0 8/27/2019 5:26:29 PM R62453 Benzene 0.17 µg/L 1 Toluene ND 0.35 1.0 μg/L 1 8/27/2019 5:26:29 PM R62453 Ethylbenzene ND 0.13 1.0 1 8/27/2019 5:26:29 PM R62453 µg/L μg/L Methyl tert-butyl ether (MTBE) 0.65 0.46 J 8/27/2019 5:26:29 PM R62453 1.0 1 1,2,4-Trimethylbenzene ND 0.21 1 1.0 µg/L 8/27/2019 5:26:29 PM R62453 1.3.5-Trimethylbenzene ND 0.19 1.0 ua/L 1 8/27/2019 5:26:29 PM R62453 1,2-Dichloroethane (EDC) ND 0.19 µg/L 1 8/27/2019 5:26:29 PM R62453 1.0 1,2-Dibromoethane (EDB) ND 0.17 1.0 μg/L 1 8/27/2019 5:26:29 PM R62453 0.28 1 Naphthalene ND 2.0 µg/L 8/27/2019 5:26:29 PM R62453 1-Methylnaphthalene ND 0.31 4.0 μg/L 1 8/27/2019 5:26:29 PM R62453 0.35 2-Methylnaphthalene ND 4.0 µg/L 1 8/27/2019 5:26:29 PM R62453 Acetone ND 1.2 10 µg/L 1 8/27/2019 5:26:29 PM R62453 Bromobenzene ND 0.24 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 Bromodichloromethane ND 0.13 1.0 μg/L 1 8/27/2019 5:26:29 PM R62453 ND 0.29 1 8/27/2019 5:26:29 PM R62453 Bromoform 1.0 µg/L ND 0.27 3.0 1 R62453 Bromomethane µg/L 8/27/2019 5:26:29 PM 2-Butanone ND 2.1 10 µg/L 1 8/27/2019 5:26:29 PM R62453 ND Carbon disulfide 0.45 10 µg/L 1 8/27/2019 5:26:29 PM R62453 Carbon Tetrachloride ND 0.14 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 Chlorobenzene ND 0.19 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 Chloroethane ND 0.18 2.0 1 µg/L 8/27/2019 5:26:29 PM R62453 Chloroform ND 0.12 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 Chloromethane ND 0.32 3.0 1 8/27/2019 5:26:29 PM R62453 µg/L 2-Chlorotoluene ND 0.25 8/27/2019 5:26:29 PM R62453 1.0 µg/L 1 ND 0.23 4-Chlorotoluene 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 cis-1,2-DCE ND 0.19 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 cis-1,3-Dichloropropene ND 0.14 μg/L 1 R62453 1.0 8/27/2019 5:26:29 PM 1,2-Dibromo-3-chloropropane ND 0.33 2.0 µg/L 1 8/27/2019 5:26:29 PM R62453 Dibromochloromethane ND 0.24 1 1.0 µg/L 8/27/2019 5:26:29 PM R62453 Dibromomethane ND 0.21 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 1,2-Dichlorobenzene ND 0.30 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 1,3-Dichlorobenzene ND 0.25 1.0 μg/L 1 8/27/2019 5:26:29 PM R62453 1,4-Dichlorobenzene ND 0.29 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 ND Dichlorodifluoromethane 0.26 1.0 μg/L 1 8/27/2019 5:26:29 PM R62453 1,1-Dichloroethane ND 0.14 1 8/27/2019 5:26:29 PM R62453 1.0 µg/L 1,1-Dichloroethene ND 0.21 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 1 1,2-Dichloropropane ND 0.21 1.0 µg/L 8/27/2019 5:26:29 PM R62453 1,3-Dichloropropane ND 0.20 μg/L 1 8/27/2019 5:26:29 PM R62453 1.0 2,2-Dichloropropane ND 0.23 2.0 µg/L 8/27/2019 5:26:29 PM R62453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Oualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-38

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 8:45:00 AM

 Lab ID:
 1908E25-003
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

Result **Qual Units** DF **Date Analyzed Batch ID Analyses MDL** RL**EPA METHOD 8260B: VOLATILES** Analyst: RAA ND 0.16 8/27/2019 5:26:29 PM 1.1-Dichloropropene 1.0 µg/L 1 R62453 Hexachlorobutadiene ND 0.31 1.0 μg/L 1 8/27/2019 5:26:29 PM R62453 ND 1.5 10 1 8/27/2019 5:26:29 PM R62453 2-Hexanone µg/L Isopropylbenzene ND 0.19 8/27/2019 5:26:29 PM R62453 1.0 µg/L 1 4-Isopropyltoluene ND 0.22 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 4-Methyl-2-pentanone ND 0.71 10 ua/L 1 8/27/2019 5:26:29 PM R62453 Methylene Chloride ND 0.15 3.0 1 R62453 µg/L 8/27/2019 5:26:29 PM n-Butvlbenzene ND 0.23 3.0 μg/L 1 8/27/2019 5:26:29 PM R62453 n-Propylbenzene 0.21 ND 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 sec-Butylbenzene ND 0.25 1.0 μg/L 1 8/27/2019 5:26:29 PM R62453 Styrene ND 0.19 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 tert-Butvlbenzene 0.57 0.21 1.0 J µg/L 1 8/27/2019 5:26:29 PM R62453 1,1,1,2-Tetrachloroethane ND 0.21 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 1.1.2.2-Tetrachloroethane ND 0.55 2.0 μg/L 1 8/27/2019 5:26:29 PM R62453 Tetrachloroethene (PCE) ND 0.15 1 8/27/2019 5:26:29 PM R62453 1.0 µg/L ND 0.18 1 R62453 trans-1,2-DCE 1.0 µg/L 8/27/2019 5:26:29 PM trans-1,3-Dichloropropene ND 0.17 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 ND 0.30 1,2,3-Trichlorobenzene 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 1.2.4-Trichlorobenzene ND 0.20 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 1,1,1-Trichloroethane ND 0.17 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 ND 0.22 1 1,1,2-Trichloroethane 1.0 µg/L 8/27/2019 5:26:29 PM R62453 Trichloroethene (TCE) ND 0.17 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 Trichlorofluoromethane ND 0.19 1 R62453 1.0 µg/L 8/27/2019 5:26:29 PM 1,2,3-Trichloropropane ND 0.30 2.0 8/27/2019 5:26:29 PM R62453 µg/L 1 ND 0.18 Vinyl chloride 1.0 µg/L 1 8/27/2019 5:26:29 PM R62453 Xylenes, Total ND 0.45 1.5 µg/L 1 8/27/2019 5:26:29 PM R62453 Surr: 1,2-Dichloroethane-d4 92.6 0 70-130 %Rec 1 R62453 8/27/2019 5:26:29 PM Surr: 4-Bromofluorobenzene 95.3 0 70-130 %Rec 1 8/27/2019 5:26:29 PM R62453 Surr: Dibromofluoromethane 0 1 98.8 70-130 %Rec 8/27/2019 5:26:29 PM R62453 Surr: Toluene-d8 101 0 70-130 %Rec 1 8/27/2019 5:26:29 PM R62453 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) 0.031 0.052 0.050 mg/L 8/27/2019 5:26:29 PM GW624 1 Surr: BFB 98.9 0 70-130 %Rec 1 8/27/2019 5:26:29 PM GW624 **CARBON DIOXIDE** Analyst: JRR **Total Carbon Dioxide** 620 0 1.0 Н mg CO2/ 1 8/26/2019 7:37:53 PM R62429 **SM2510B: SPECIFIC CONDUCTANCE** Analyst: JRR 8/26/2019 7:37:53 PM Conductivity 1700 5.0 5.0 µmhos/c 1 R62429

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Oualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-38

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 8:45:00 AM

 Lab ID:
 1908E25-003
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

Analyses Result **MDL** RL**Qual Units** DF **Date Analyzed Batch ID SM2320B: ALKALINITY** Analyst: JRR Bicarbonate (As CaCO3) 20.00 20.00 mg/L Ca 1 8/26/2019 7:37:53 PM 686.8 R62429 Carbonate (As CaCO3) ND 2.000 2.000 mg/L Ca 1 8/26/2019 7:37:53 PM R62429 Total Alkalinity (as CaCO3) 686.8 20.00 20.00 mg/L Ca 1 8/26/2019 7:37:53 PM R62429 **SM2540C MOD: TOTAL DISSOLVED SOLIDS** Analyst: JMT **Total Dissolved Solids** 100 *D 8/29/2019 1:58:00 PM 875 100 mg/L 1 47121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Trip Blank
Project: 2019 Annual GW Sampling Event

Collection Date: 8/22/2019

Lab ID: 1908E25-004 **Matrix:** TRIP BLANK **Received Date:** 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|------|-----|------------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | Analyst: RAA | 4 |
| Benzene | ND | 0.17 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Toluene | ND | 0.35 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Ethylbenzene | ND | 0.13 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Methyl tert-butyl ether (MTBE) | ND | 0.46 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,2,4-Trimethylbenzene | ND | 0.21 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,3,5-Trimethylbenzene | ND | 0.19 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,2-Dichloroethane (EDC) | ND | 0.19 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,2-Dibromoethane (EDB) | ND | 0.17 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Naphthalene | ND | 0.28 | 2.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1-Methylnaphthalene | ND | 0.31 | 4.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 2-Methylnaphthalene | ND | 0.35 | 4.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Acetone | ND | 1.2 | 10 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Bromobenzene | ND | 0.24 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | |
| Bromodichloromethane | ND | 0.13 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | |
| Bromoform | ND | 0.29 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | |
| Bromomethane | ND | 0.27 | 3.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 2-Butanone | ND | 2.1 | 10 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Carbon disulfide | ND | 0.45 | 10 | μg/L | 1 | 8/27/2019 5:55:36 PM | |
| Carbon Tetrachloride | ND | 0.14 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | |
| Chlorobenzene | ND | 0.19 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Chloroethane | ND | 0.18 | 2.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Chloroform | ND | 0.12 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Chloromethane | ND | 0.32 | 3.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 2-Chlorotoluene | ND | 0.25 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 4-Chlorotoluene | ND | 0.23 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| cis-1,2-DCE | ND | 0.19 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| cis-1,3-Dichloropropene | ND | 0.14 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,2-Dibromo-3-chloropropane | ND | 0.33 | 2.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Dibromochloromethane | ND | 0.24 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Dibromomethane | ND | 0.21 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,2-Dichlorobenzene | ND | 0.30 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,3-Dichlorobenzene | ND | 0.25 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,4-Dichlorobenzene | ND | 0.29 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Dichlorodifluoromethane | ND | 0.26 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,1-Dichloroethane | ND | 0.14 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | |
| 1,1-Dichloroethene | ND | 0.21 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,2-Dichloropropane | ND | 0.21 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | |
| 1,3-Dichloropropane | ND | 0.20 | 1.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 2,2-Dichloropropane | ND | 0.23 | 2.0 | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Trip Blank
Project: 2019 Annual GW Sampling Event

Collection Date: 8/22/2019

Lab ID: 1908E25-004 **Matrix:** TRIP BLANK **Received Date:** 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|----------------------------------|--------|-------|--------|------|-------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: RAA | 1 |
| 1,1-Dichloropropene | ND | 0.16 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Hexachlorobutadiene | ND | 0.31 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 2-Hexanone | ND | 1.5 | 10 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Isopropylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 4-Isopropyltoluene | ND | 0.22 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 4-Methyl-2-pentanone | ND | 0.71 | 10 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Methylene Chloride | 0.18 | 0.15 | 3.0 | J | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| n-Butylbenzene | ND | 0.23 | 3.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| n-Propylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| sec-Butylbenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Styrene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| tert-Butylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,1,1,2-Tetrachloroethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,1,2,2-Tetrachloroethane | ND | 0.55 | 2.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Tetrachloroethene (PCE) | ND | 0.15 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| trans-1,2-DCE | ND | 0.18 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| trans-1,3-Dichloropropene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,2,3-Trichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,2,4-Trichlorobenzene | ND | 0.20 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,1,1-Trichloroethane | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,1,2-Trichloroethane | ND | 0.22 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Trichloroethene (TCE) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Trichlorofluoromethane | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| 1,2,3-Trichloropropane | ND | 0.30 | 2.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Vinyl chloride | ND | 0.18 | 1.0 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Xylenes, Total | ND | 0.45 | 1.5 | | μg/L | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Surr: 1,2-Dichloroethane-d4 | 95.6 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Surr: 4-Bromofluorobenzene | 93.3 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Surr: Dibromofluoromethane | 104 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 5:55:36 PM | R62453 |
| Surr: Toluene-d8 | 105 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 5:55:36 PM | R62453 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: RAA | 4 |
| Gasoline Range Organics (GRO) | ND | 0.031 | 0.050 | | mg/L | 1 | 8/27/2019 5:55:36 PM | GW624 |
| Surr: BFB | 97.9 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 5:55:36 PM | GW624 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-37

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 9:10:00 AM

 Lab ID: 1908E25-005
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|---------------------------------------|----------|----------|----------|------|-------|----|-----------------------|----------------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | | Analyst: JME | |
| Diesel Range Organics (DRO) | ND | 0.13 | 0.40 | | mg/L | 1 | 8/29/2019 12:20:19 AM | A 47076 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | 2.5 | | mg/L | 1 | 8/29/2019 12:20:19 AM | A 47076 |
| Surr: DNOP | 132 | 0 | 52.7-168 | | %Rec | 1 | 8/29/2019 12:20:19 AM | <i>I</i> 47076 |
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CAS | ; |
| Fluoride | 0.51 | 0.073 | 0.50 | | mg/L | 5 | 9/9/2019 12:23:48 PM | R62780 |
| Chloride | 220 | 10 | 10 | | mg/L | 20 | 9/9/2019 12:36:41 PM | R62780 |
| Bromide | 3.0 | 0.089 | 0.50 | | mg/L | 5 | 9/9/2019 12:23:48 PM | R62780 |
| Phosphorus, Orthophosphate (As P) | ND | 1.2 | 2.5 | Н | mg/L | 5 | 9/9/2019 12:23:48 PM | R62780 |
| Sulfate | 1200 | 3.3 | 25 | * | mg/L | 50 | 9/10/2019 5:54:09 PM | R62809 |
| Nitrate+Nitrite as N | 0.18 | 0.048 | 1.0 | J | mg/L | 5 | 9/9/2019 2:58:14 PM | R62780 |
| EPA METHOD 7470: MERCURY | | | | | | | Analyst: rde | |
| Mercury | 0.000070 | 0.000038 | 0.00020 | J | mg/L | 1 | 9/12/2019 2:12:28 PM | 47428 |
| EPA METHOD 6010B: DISSOLVED ME | TALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.019 | 0.020 | | mg/L | 1 | 9/9/2019 12:34:22 PM | A62764 |
| Barium | 0.053 | 0.00056 | 0.020 | | mg/L | 1 | 9/9/2019 9:49:32 AM | A62764 |
| Cadmium | ND | 0.00058 | 0.0020 | | mg/L | 1 | 9/9/2019 9:49:32 AM | A62764 |
| Calcium | 220 | 0.30 | 5.0 | | mg/L | 5 | 9/9/2019 9:51:12 AM | A62764 |
| Chromium | ND | 0.0012 | 0.0060 | | mg/L | 1 | 9/9/2019 9:49:32 AM | A62764 |
| Copper | 0.0024 | 0.0023 | 0.0060 | J | mg/L | 1 | 9/9/2019 9:49:32 AM | A62764 |
| Iron | 0.63 | 0.0054 | 0.020 | | mg/L | 1 | 9/9/2019 9:49:32 AM | A62764 |
| Lead | ND | 0.0048 | 0.0050 | | mg/L | 1 | 9/9/2019 9:49:32 AM | A62764 |
| Magnesium | 41 | 0.061 | 1.0 | | mg/L | 1 | 9/9/2019 9:49:32 AM | A62764 |
| Manganese | 2.0 | 0.0013 | 0.010 | | mg/L | 5 | 9/9/2019 9:51:12 AM | A62764 |
| Potassium | 3.6 | 0.11 | 1.0 | | mg/L | 1 | 9/9/2019 9:49:32 AM | A62764 |
| Selenium | ND | 0.041 | 0.050 | | mg/L | 1 | 9/9/2019 9:49:32 AM | A62764 |
| Silver | 0.0030 | 0.0013 | 0.0050 | J | mg/L | 1 | 9/9/2019 9:49:32 AM | A62764 |
| Sodium | 530 | 2.4 | 10 | | mg/L | 10 | 9/9/2019 12:36:04 PM | A62764 |
| Uranium | ND | 0.062 | 0.10 | | mg/L | 1 | 9/9/2019 9:49:32 AM | A62764 |
| Zinc | 0.015 | 0.0026 | 0.020 | J | mg/L | 1 | 9/9/2019 9:49:32 AM | A62764 |
| EPA 6010B: TOTAL RECOVERABLE M | ETALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.015 | 0.020 | | mg/L | 1 | 9/5/2019 2:22:15 PM | 47071 |
| Barium | 0.17 | 0.0012 | 0.020 | | mg/L | 1 | 9/5/2019 2:22:15 PM | 47071 |
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 2:22:15 PM | 47071 |
| Chromium | 0.0040 | 0.00086 | 0.0060 | J | mg/L | 1 | 9/5/2019 2:22:15 PM | 47071 |
| Lead | ND | 0.0035 | 0.0050 | | mg/L | 1 | 9/5/2019 2:22:15 PM | 47071 |
| Selenium | ND | 0.035 | 0.050 | | mg/L | 1 | 9/5/2019 2:22:15 PM | 47071 |
| Silver | 0.0024 | 0.00055 | 0.0050 | J | mg/L | 1 | 9/5/2019 2:22:15 PM | 47071 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-37

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 9:10:00 AM

 Lab ID: 1908E25-005
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|------|-----|------------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | Analyst: RAA | 4 |
| Benzene | ND | 0.17 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Toluene | ND | 0.35 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Ethylbenzene | ND | 0.13 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Methyl tert-butyl ether (MTBE) | ND | 0.46 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,2,4-Trimethylbenzene | ND | 0.21 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,3,5-Trimethylbenzene | ND | 0.19 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,2-Dichloroethane (EDC) | ND | 0.19 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,2-Dibromoethane (EDB) | ND | 0.17 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Naphthalene | ND | 0.28 | 2.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1-Methylnaphthalene | ND | 0.31 | 4.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 2-Methylnaphthalene | ND | 0.35 | 4.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Acetone | ND | 1.2 | 10 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Bromobenzene | ND | 0.24 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Bromodichloromethane | ND | 0.13 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Bromoform | ND | 0.29 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Bromomethane | ND | 0.27 | 3.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 2-Butanone | ND | 2.1 | 10 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Carbon disulfide | ND | 0.45 | 10 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Carbon Tetrachloride | ND | 0.14 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Chlorobenzene | ND | 0.19 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Chloroethane | ND | 0.18 | 2.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Chloroform | ND | 0.12 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Chloromethane | ND | 0.32 | 3.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 2-Chlorotoluene | ND | 0.25 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 4-Chlorotoluene | ND | 0.23 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| cis-1,2-DCE | ND | 0.19 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| cis-1,3-Dichloropropene | ND | 0.14 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,2-Dibromo-3-chloropropane | ND | 0.33 | 2.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Dibromochloromethane | ND | 0.24 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Dibromomethane | ND | 0.21 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,2-Dichlorobenzene | ND | 0.30 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,3-Dichlorobenzene | ND | 0.25 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,4-Dichlorobenzene | ND | 0.29 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Dichlorodifluoromethane | ND | 0.26 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,1-Dichloroethane | ND | 0.14 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,1-Dichloroethene | ND | 0.21 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,2-Dichloropropane | ND | 0.21 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,3-Dichloropropane | ND | 0.20 | 1.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 2,2-Dichloropropane | ND | 0.23 | 2.0 | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-37

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/22/2019 9:10:00 AM

Lab ID: 1908E25-005 **Matrix:** AQUEOUS **Received Date:** 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|----------------------------------|--------|-------|--------|------|--------|------|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: RAA | 4 |
| 1,1-Dichloropropene | ND | 0.16 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Hexachlorobutadiene | ND | 0.31 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 2-Hexanone | ND | 1.5 | 10 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Isopropylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 4-Isopropyltoluene | ND | 0.22 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 4-Methyl-2-pentanone | ND | 0.71 | 10 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Methylene Chloride | ND | 0.15 | 3.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| n-Butylbenzene | ND | 0.23 | 3.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| n-Propylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| sec-Butylbenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Styrene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| tert-Butylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,1,1,2-Tetrachloroethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,1,2,2-Tetrachloroethane | ND | 0.55 | 2.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Tetrachloroethene (PCE) | ND | 0.15 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| trans-1,2-DCE | ND | 0.18 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| trans-1,3-Dichloropropene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,2,3-Trichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,2,4-Trichlorobenzene | ND | 0.20 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,1,1-Trichloroethane | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,1,2-Trichloroethane | ND | 0.22 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Trichloroethene (TCE) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Trichlorofluoromethane | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| 1,2,3-Trichloropropane | ND | 0.30 | 2.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Vinyl chloride | ND | 0.18 | 1.0 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Xylenes, Total | ND | 0.45 | 1.5 | | μg/L | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Surr: 1,2-Dichloroethane-d4 | 93.2 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Surr: 4-Bromofluorobenzene | 96.3 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Surr: Dibromofluoromethane | 99.4 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 6:24:43 PM | R62453 |
| Surr: Toluene-d8 | 99.1 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 6:24:43 PM | R62453 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: RAA | 4 |
| Gasoline Range Organics (GRO) | ND | 0.031 | 0.050 | | mg/L | 1 | 8/27/2019 6:24:43 PM | GW624 |
| Surr: BFB | 97.5 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 6:24:43 PM | GW624 |
| CARBON DIOXIDE | | | | | | | Analyst: JRR | 1 |
| Total Carbon Dioxide | 520 | 0 | 1.0 | Н | mg CO2 | 2/ 1 | 8/26/2019 8:03:18 PM | R62429 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | | Analyst: JRR | 2 |
| Conductivity | 3600 | 5.0 | 5.0 | | µmhos/ | c 1 | 8/26/2019 8:03:18 PM | R62429 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-37

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/22/2019 9:10:00 AM

Lab ID: 1908E25-005 **Matrix:** AQUEOUS **Received Date:** 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|-------|-------|------|---------|-----|----------------------|----------|
| SM2320B: ALKALINITY | | | | | | | Analyst: JRF | ₹ |
| Bicarbonate (As CaCO3) | 572.6 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/26/2019 8:03:18 PM | 1 R62429 |
| Carbonate (As CaCO3) | ND | 2.000 | 2.000 | | mg/L Ca | a 1 | 8/26/2019 8:03:18 PM | 1 R62429 |
| Total Alkalinity (as CaCO3) | 572.6 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/26/2019 8:03:18 PM | 1 R62429 |
| SM2540C MOD: TOTAL DISSOLVED SOLID | S | | | | | | Analyst: JM | Т |
| Total Dissolved Solids | 2480 | 100 | 100 | *D | mg/L | 1 | 8/29/2019 1:58:00 PM | 1 47121 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-35

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 9:40:00 AM

 Lab ID: 1908E25-006
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed I | Batch ID |
|-----------------------------------|---------|----------|----------|------|-------|----|-----------------------|----------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | | Analyst: JME | |
| Diesel Range Organics (DRO) | 0.26 | 0.13 | 0.40 | J | mg/L | 1 | 8/29/2019 12:44:57 AM | 47076 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | 2.5 | | mg/L | 1 | 8/29/2019 12:44:57 AM | 47076 |
| Surr: DNOP | 127 | 0 | 52.7-168 | | %Rec | 1 | 8/29/2019 12:44:57 AM | 47076 |
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CAS | |
| Fluoride | 0.61 | 0.073 | 0.50 | | mg/L | 5 | 9/9/2019 12:49:33 PM | R62780 |
| Chloride | 210 | 10 | 10 | | mg/L | 20 | 9/9/2019 1:02:24 PM | R62780 |
| Bromide | 2.9 | 0.089 | 0.50 | | mg/L | 5 | 9/9/2019 12:49:33 PM | R62780 |
| Phosphorus, Orthophosphate (As P) | ND | 1.2 | 2.5 | Н | mg/L | 5 | 9/9/2019 12:49:33 PM | R62780 |
| Sulfate | 91 | 0.33 | 2.5 | | mg/L | 5 | 9/9/2019 12:49:33 PM | R62780 |
| Nitrate+Nitrite as N | ND | 0.048 | 1.0 | | mg/L | 5 | 9/9/2019 3:11:06 PM | R62780 |
| EPA METHOD 7470: MERCURY | | | | | | | Analyst: rde | |
| Mercury | 0.00012 | 0.000038 | 0.00020 | J | mg/L | 1 | 9/12/2019 2:14:43 PM | 47428 |
| EPA METHOD 6010B: DISSOLVED METAI | LS | | | | | | Analyst: bcv | |
| Arsenic | 0.037 | 0.019 | 0.020 | | mg/L | 1 | 9/9/2019 9:58:36 AM | A62764 |
| Barium | 1.1 | 0.0028 | 0.10 | | mg/L | 5 | 9/9/2019 10:00:19 AM | A62764 |
| Cadmium | ND | 0.00058 | 0.0020 | | mg/L | 1 | 9/9/2019 9:58:36 AM | A62764 |
| Calcium | 140 | 0.30 | 5.0 | | mg/L | 5 | 9/9/2019 10:00:19 AM | A62764 |
| Chromium | ND | 0.0012 | 0.0060 | | mg/L | 1 | 9/9/2019 9:58:36 AM | A62764 |
| Copper | ND | 0.0023 | 0.0060 | | mg/L | 1 | 9/9/2019 9:58:36 AM | A62764 |
| Iron | 1.9 | 0.027 | 0.10 | | mg/L | 5 | 9/9/2019 10:00:19 AM | A62764 |
| Lead | 0.0061 | 0.0048 | 0.0050 | | mg/L | 1 | 9/9/2019 9:58:36 AM | A62764 |
| Magnesium | 24 | 0.061 | 1.0 | | mg/L | 1 | 9/9/2019 9:58:36 AM | A62764 |
| Manganese | 2.4 | 0.0013 | 0.010 | | mg/L | 5 | 9/9/2019 10:00:19 AM | A62764 |
| Potassium | 3.0 | 0.11 | 1.0 | | mg/L | 1 | 9/9/2019 9:58:36 AM | A62764 |
| Selenium | ND | 0.041 | 0.050 | | mg/L | 1 | 9/9/2019 9:58:36 AM | A62764 |
| Silver | 0.0017 | 0.0013 | 0.0050 | J | mg/L | 1 | 9/9/2019 9:58:36 AM | A62764 |
| Sodium | 400 | 1.2 | 5.0 | | mg/L | 5 | 9/9/2019 10:00:19 AM | A62764 |
| Uranium | ND | 0.062 | 0.10 | | mg/L | 1 | 9/9/2019 9:58:36 AM | A62764 |
| Zinc | 0.021 | 0.0026 | 0.020 | | mg/L | 1 | 9/9/2019 9:58:36 AM | A62764 |
| EPA 6010B: TOTAL RECOVERABLE MET | ALS | | | | | | Analyst: bcv | |
| Arsenic | 0.016 | 0.015 | 0.020 | J | mg/L | 1 | 9/9/2019 8:11:09 AM | 47071 |
| Barium | 1.2 | 0.0061 | 0.10 | | mg/L | 5 | 9/9/2019 8:12:48 AM | 47071 |
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 2:30:53 PM | 47071 |
| Chromium | 0.0038 | 0.00086 | 0.0060 | J | mg/L | 1 | 9/5/2019 2:30:53 PM | 47071 |
| Lead | 0.0042 | 0.0035 | 0.0050 | J | mg/L | 1 | 9/5/2019 2:30:53 PM | 47071 |
| Selenium | ND | 0.035 | 0.050 | | mg/L | 1 | 9/9/2019 8:11:09 AM | 47071 |
| Silver | 0.00077 | 0.00055 | 0.0050 | J | mg/L | 1 | 9/5/2019 2:30:53 PM | 47071 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-35

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 9:40:00 AM

 Lab ID:
 1908E25-006
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

Result **Qual Units** DF **Date Analyzed Batch ID Analyses MDL** RL**EPA METHOD 8260B: VOLATILES** Analyst: RAA ND 1.0 8/27/2019 6:53:52 PM R62453 Benzene 0.17 µg/L 1 Toluene ND 0.35 1.0 μg/L 1 8/27/2019 6:53:52 PM R62453 Ethylbenzene ND 0.13 1.0 μg/L 1 8/27/2019 6:53:52 PM R62453 μg/L Methyl tert-butyl ether (MTBE) 0.62 0.46 J 8/27/2019 6:53:52 PM R62453 1.0 1 1,2,4-Trimethylbenzene ND 0.21 1 R62453 1.0 µg/L 8/27/2019 6:53:52 PM 1.3.5-Trimethylbenzene ND 0.19 1.0 ua/L 1 8/27/2019 6:53:52 PM R62453 1,2-Dichloroethane (EDC) ND 0.19 µg/L 1 8/27/2019 6:53:52 PM R62453 1.0 1,2-Dibromoethane (EDB) ND 0.17 1.0 μg/L 1 8/27/2019 6:53:52 PM R62453 0.28 1 Naphthalene ND 2.0 µg/L 8/27/2019 6:53:52 PM R62453 1-Methylnaphthalene ND 0.31 4.0 μg/L 1 8/27/2019 6:53:52 PM R62453 0.35 2-Methylnaphthalene ND 4.0 µg/L 1 8/27/2019 6:53:52 PM R62453 Acetone 4.7 1.2 10 J µg/L 1 8/27/2019 6:53:52 PM R62453 Bromobenzene ND 0.24 1.0 µg/L 1 8/27/2019 6:53:52 PM R62453 Bromodichloromethane ND 0.13 1.0 μg/L 1 8/27/2019 6:53:52 PM R62453 ND 0.29 μg/L 1 8/27/2019 6:53:52 PM R62453 Bromoform 1.0 ND 0.27 3.0 1 R62453 Bromomethane µg/L 8/27/2019 6:53:52 PM 2-Butanone ND 2.1 10 µg/L 1 8/27/2019 6:53:52 PM R62453 ND 0.45 Carbon disulfide 10 µg/L 1 8/27/2019 6:53:52 PM R62453 Carbon Tetrachloride ND 0.14 1.0 µg/L 1 8/27/2019 6:53:52 PM R62453 Chlorobenzene ND 0.19 1.0 µg/L 1 8/27/2019 6:53:52 PM R62453 Chloroethane ND 0.18 2.0 1 µg/L 8/27/2019 6:53:52 PM R62453 Chloroform ND 0.12 1.0 µg/L 1 8/27/2019 6:53:52 PM R62453 Chloromethane ND 0.32 3.0 1 8/27/2019 6:53:52 PM R62453 µg/L 2-Chlorotoluene ND 0.25 8/27/2019 6:53:52 PM R62453 1.0 µg/L 1 ND 0.23 4-Chlorotoluene 1.0 µg/L 1 8/27/2019 6:53:52 PM R62453 cis-1,2-DCE ND 0.19 1.0 µg/L 1 8/27/2019 6:53:52 PM R62453 cis-1,3-Dichloropropene ND 0.14 μg/L 1 8/27/2019 6:53:52 PM R62453 1.0 1,2-Dibromo-3-chloropropane ND 0.33 2.0 µg/L 1 8/27/2019 6:53:52 PM R62453 Dibromochloromethane ND 0.24 1 1.0 µg/L 8/27/2019 6:53:52 PM R62453 Dibromomethane ND 0.21 1.0 µg/L 1 8/27/2019 6:53:52 PM R62453 1,2-Dichlorobenzene ND 0.30 1.0 µg/L 1 8/27/2019 6:53:52 PM R62453 1,3-Dichlorobenzene ND 0.25 1.0 μg/L 1 8/27/2019 6:53:52 PM R62453 1,4-Dichlorobenzene ND 0.29 1.0 µg/L 1 8/27/2019 6:53:52 PM R62453 ND Dichlorodifluoromethane 0.26 1.0 μg/L 1 8/27/2019 6:53:52 PM R62453 1,1-Dichloroethane ND 0.14 1 8/27/2019 6:53:52 PM R62453 1.0 µg/L 1,1-Dichloroethene ND 0.21 1.0 µg/L 1 8/27/2019 6:53:52 PM R62453 1 1,2-Dichloropropane ND 0.21 1.0 µg/L 8/27/2019 6:53:52 PM R62453 1,3-Dichloropropane ND 0.20 μg/L 1 8/27/2019 6:53:52 PM R62453 1.0 2,2-Dichloropropane ND 0.23 2.0 µg/L 8/27/2019 6:53:52 PM R62453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-35

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 9:40:00 AM

 Lab ID: 1908E25-006
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed 1 | Batch ID |
|----------------------------------|--------|-------|--------|------|---------|------|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: RAA | |
| 1,1-Dichloropropene | ND | 0.16 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| Hexachlorobutadiene | ND | 0.31 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| 2-Hexanone | ND | 1.5 | 10 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| Isopropylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| 4-Isopropyltoluene | ND | 0.22 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| 4-Methyl-2-pentanone | ND | 0.71 | 10 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| Methylene Chloride | ND | 0.15 | 3.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| n-Butylbenzene | ND | 0.23 | 3.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| n-Propylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| sec-Butylbenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| Styrene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| tert-Butylbenzene | 1.4 | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| 1,1,1,2-Tetrachloroethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| 1,1,2,2-Tetrachloroethane | ND | 0.55 | 2.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| Tetrachloroethene (PCE) | ND | 0.15 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| trans-1,2-DCE | ND | 0.18 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| trans-1,3-Dichloropropene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| 1,2,3-Trichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| 1,2,4-Trichlorobenzene | ND | 0.20 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| 1,1,1-Trichloroethane | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| 1,1,2-Trichloroethane | ND | 0.22 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| Trichloroethene (TCE) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| Trichlorofluoromethane | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| 1,2,3-Trichloropropane | ND | 0.30 | 2.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| Vinyl chloride | ND | 0.18 | 1.0 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| Xylenes, Total | ND | 0.45 | 1.5 | | μg/L | 1 | 8/27/2019 6:53:52 PM | R62453 |
| Surr: 1,2-Dichloroethane-d4 | 98.2 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 6:53:52 PM | R62453 |
| Surr: 4-Bromofluorobenzene | 96.6 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 6:53:52 PM | R62453 |
| Surr: Dibromofluoromethane | 101 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 6:53:52 PM | R62453 |
| Surr: Toluene-d8 | 102 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 6:53:52 PM | R62453 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: RAA | ı |
| Gasoline Range Organics (GRO) | 0.35 | 0.031 | 0.050 | | mg/L | 1 | 8/27/2019 6:53:52 PM | GW624 |
| Surr: BFB | 101 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 6:53:52 PM | GW624 |
| CARBON DIOXIDE | | | | | | | Analyst: JRR | |
| Total Carbon Dioxide | 920 | 0 | 1.0 | Н | mg CO2 | 2/ 1 | 8/26/2019 8:25:09 PM | R62429 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | | Analyst: JRR | |
| Conductivity | 2500 | 5.0 | 5.0 | | µmhos/o | 1 | 8/26/2019 8:25:09 PM | R62429 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

8/29/2019 1:58:00 PM

47121

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-35

1450

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 9:40:00 AM

 Lab ID:
 1908E25-006
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

Analyses Result **MDL** RL**Qual Units** DF **Date Analyzed Batch ID SM2320B: ALKALINITY** Analyst: JRR 8/26/2019 8:25:09 PM Bicarbonate (As CaCO3) 1005 20.00 20.00 mg/L Ca 1 R62429 Carbonate (As CaCO3) ND 2.000 2.000 mg/L Ca 1 8/26/2019 8:25:09 PM R62429 Total Alkalinity (as CaCO3) 1005 20.00 20.00 mg/L Ca 1 8/26/2019 8:25:09 PM R62429 **SM2540C MOD: TOTAL DISSOLVED SOLIDS** Analyst: JMT

100

*D

mg/L

1

100

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Total Dissolved Solids

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-12

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 10:05:00 AM

 Lab ID: 1908E25-007
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| EPA METHOD 8015D: DIESEL RANGE Analyst: JME Diesel Range Organics (DRO) ND 0.13 0.40 mg/L 1 8/29/2019 1:09:40 AM Motor Oil Range Organics (MRO) ND 2.5 2.5 mg/L 1 8/29/2019 1:09:40 AM Surr: DNOP 129 0 52.7-168 %Rec 1 8/29/2019 1:09:40 AM EPA METHOD 300.0: ANIONS Analyst: CAS Fluoride 0.34 0.073 0.50 J mg/L 5 9/9/2019 1:15:16 PM Chloride 5.7 2.5 2.5 mg/L 5 9/9/2019 1:15:16 PM Bromide ND 0.089 0.50 mg/L 5 9/9/2019 1:15:16 PM Phosphorus, Orthophosphate (As P) ND 1.2 2.5 H mg/L 5 9/9/2019 1:15:16 PM | 47076 47076 47076 R6278C R6278C R6278C R6278C R6278C |
|---|---|
| Motor Oil Range Organics (MRO) ND 2.5 2.5 mg/L 1 8/29/2019 1:09:40 AM Surr: DNOP 129 0 52.7-168 %Rec 1 8/29/2019 1:09:40 AM EPA METHOD 300.0: ANIONS Fluoride 0.34 0.073 0.50 J mg/L 5 9/9/2019 1:15:16 PM Chloride 5.7 2.5 2.5 mg/L 5 9/9/2019 1:15:16 PM Bromide ND 0.089 0.50 mg/L 5 9/9/2019 1:15:16 PM | 47076 47076 R6278C R6278C R6278C R6278C R6278C |
| Surr: DNOP 129 0 52.7-168 %Rec 1 8/29/2019 1:09:40 AM EPA METHOD 300.0: ANIONS Fluoride 0.34 0.073 0.50 J mg/L 5 9/9/2019 1:15:16 PM Chloride 5.7 2.5 2.5 mg/L 5 9/9/2019 1:15:16 PM Bromide ND 0.089 0.50 mg/L 5 9/9/2019 1:15:16 PM | 47076 R6278C R6278C R6278C R6278C R6278C |
| EPA METHOD 300.0: ANIONS Fluoride 0.34 0.073 0.50 J mg/L 5 9/9/2019 1:15:16 PM Chloride 5.7 2.5 2.5 mg/L 5 9/9/2019 1:15:16 PM Bromide ND 0.089 0.50 mg/L 5 9/9/2019 1:15:16 PM | R6278C R6278C R6278C R6278C R6278C |
| Fluoride 0.34 0.073 0.50 J mg/L 5 9/9/2019 1:15:16 PM Chloride 5.7 2.5 2.5 mg/L 5 9/9/2019 1:15:16 PM Bromide ND 0.089 0.50 mg/L 5 9/9/2019 1:15:16 PM | R62780 R62780 R62780 R62780 |
| Chloride 5.7 2.5 2.5 2.5 mg/L 5 9/9/2019 1:15:16 PM Bromide ND 0.089 0.50 mg/L 5 9/9/2019 1:15:16 PM | R62780 R62780 R62780 R62780 |
| Bromide ND 0.089 0.50 mg/L 5 9/9/2019 1:15:16 PM | R62780 R62780 R62780 |
| | R62780 R62780 |
| Phosphorus, Orthophosphate (As P) ND 1.2 2.5 H mg/L 5 9/9/2019 1:15:16 PM | R62780 |
| | |
| Sulfate 57 0.33 2.5 mg/L 5 9/9/2019 1:15:16 PM | _ |
| Nitrate+Nitrite as N 0.080 0.048 1.0 J mg/L 5 9/9/2019 3:23:59 PM | R62780 |
| EPA METHOD 7470: MERCURY Analyst: rde | |
| Mercury 0.000079 0.000038 0.00020 J mg/L 1 9/12/2019 2:16:59 PM | 47428 |
| EPA METHOD 6010B: DISSOLVED METALS Analyst: bcv | |
| Arsenic ND 0.019 0.020 mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| Barium 0.045 0.00056 0.020 mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| Cadmium ND 0.00058 0.0020 mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| Calcium 50 0.060 1.0 mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| Chromium 0.0036 0.0012 0.0060 J mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| Copper ND 0.0023 0.0060 mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| Iron 0.020 0.0054 0.020 J mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| Lead 0.0054 0.0048 0.0050 mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| Magnesium 7.3 0.061 1.0 mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| Manganese 0.0095 0.00026 0.0020 mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| Potassium 0.57 0.11 1.0 J mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| Selenium ND 0.041 0.050 mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| Silver ND 0.0013 0.0050 mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| Sodium 29 0.24 1.0 mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| Uranium ND 0.062 0.10 mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| Zinc 0.017 0.0026 0.020 J mg/L 1 9/9/2019 10:02:12 AM | A62764 |
| EPA 6010B: TOTAL RECOVERABLE METALS Analyst: bcv | |
| Arsenic ND 0.015 0.020 mg/L 1 9/9/2019 8:14:29 AM | 47071 |
| Barium 0.071 0.0012 0.020 mg/L 1 9/5/2019 2:32:34 PM | 47071 |
| Cadmium ND 0.00055 0.0020 mg/L 1 9/5/2019 2:32:34 PM | 47071 |
| Chromium 0.31 0.00086 0.0060 mg/L 1 9/5/2019 2:32:34 PM | 47071 |
| Lead 0.0069 0.0035 0.0050 mg/L 1 9/5/2019 2:32:34 PM | 47071 |
| Selenium ND 0.035 0.050 mg/L 1 9/9/2019 8:14:29 AM | 47071 |
| Silver ND 0.00055 0.0050 mg/L 1 9/5/2019 2:32:34 PM | 47071 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-12

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 10:05:00 AM

 Lab ID: 1908E25-007
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|-----|----|------------|----|---------------------|----------|
| EPA METHOD 8270C: SEMIVOLATILES | | | | | | Analyst: DA | М |
| Acenaphthene | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Acenaphthylene | ND | 2.4 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Aniline | ND | 3.6 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Anthracene | ND | 2.7 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Azobenzene | ND | 3.3 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Benz(a)anthracene | ND | 3.6 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Benzo(a)pyrene | ND | 3.5 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Benzo(b)fluoranthene | ND | 3.4 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Benzo(g,h,i)perylene | ND | 2.2 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Benzo(k)fluoranthene | ND | 2.9 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Benzoic acid | ND | 11 | 20 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Benzyl alcohol | ND | 2.4 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Bis(2-chloroethoxy)methane | ND | 2.6 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Bis(2-chloroethyl)ether | ND | 3.2 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Bis(2-chloroisopropyl)ether | ND | 3.9 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Bis(2-ethylhexyl)phthalate | ND | 4.3 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 4-Bromophenyl phenyl ether | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Butyl benzyl phthalate | ND | 3.3 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Carbazole | ND | 2.9 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 4-Chloro-3-methylphenol | ND | 3.4 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 4-Chloroaniline | ND | 2.3 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 2-Chloronaphthalene | ND | 3.1 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 2-Chlorophenol | ND | 2.7 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 4-Chlorophenyl phenyl ether | ND | 2.4 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Chrysene | ND | 2.8 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Di-n-butyl phthalate | ND | 2.7 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Di-n-octyl phthalate | ND | 3.5 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Dibenz(a,h)anthracene | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Dibenzofuran | ND | 3.2 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 1,2-Dichlorobenzene | ND | 4.8 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 1,3-Dichlorobenzene | ND | 5.3 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 1,4-Dichlorobenzene | ND | 4.4 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 3,3'-Dichlorobenzidine | ND | 2.8 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Diethyl phthalate | ND | 2.9 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Dimethyl phthalate | ND | 3.2 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 2,4-Dichlorophenol | ND | 2.9 | 20 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 2,4-Dimethylphenol | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 4,6-Dinitro-2-methylphenol | ND | 2.9 | 20 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 2,4-Dinitrophenol | ND | 2.6 | 20 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-12

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 10:05:00 AM

 Lab ID: 1908E25-007
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | . RL | Qual Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|-----|----------|------------|----|---------------------|----------|
| EPA METHOD 8270C: SEMIVOLATILES | | | | | | Analyst: DA | M |
| 2,4-Dinitrotoluene | ND | 3.8 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 2,6-Dinitrotoluene | ND | 2.4 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Fluoranthene | ND | 2.4 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Fluorene | ND | 2.9 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Hexachlorobenzene | ND | 3.1 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Hexachlorobutadiene | ND | 4.7 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Hexachlorocyclopentadiene | ND | 3.6 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Hexachloroethane | ND | 4.8 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Indeno(1,2,3-cd)pyrene | ND | 2.7 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Isophorone | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 1-Methylnaphthalene | ND | 3.1 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 2-Methylnaphthalene | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 2-Methylphenol | ND | 2.9 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 3+4-Methylphenol | ND | 3.6 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| N-Nitrosodi-n-propylamine | ND | 6.5 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| N-Nitrosodimethylamine | ND | 5.0 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| N-Nitrosodiphenylamine | ND | 2.4 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Naphthalene | ND | 4.1 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 2-Nitroaniline | ND | 3.2 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 3-Nitroaniline | ND | 3.2 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 4-Nitroaniline | ND | 2.7 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Nitrobenzene | ND | 2.8 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 2-Nitrophenol | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 4-Nitrophenol | ND | 7.6 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Pentachlorophenol | ND | 2.7 | 20 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Phenanthrene | ND | 2.8 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Phenol | ND | 8.0 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Pyrene | ND | 2.5 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Pyridine | ND | 9.6 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 1,2,4-Trichlorobenzene | ND | 4.0 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 2,4,5-Trichlorophenol | ND | 3.0 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| 2,4,6-Trichlorophenol | ND | 2.3 | 10 | μg/L | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Surr: 2-Fluorophenol | 51.5 | 0 | 15-101 | %Rec | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Surr: Phenol-d5 | 40.9 | 0 | 15-84.6 | %Rec | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Surr: 2,4,6-Tribromophenol | 52.3 | 0 | 27.8-112 | %Rec | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Surr: Nitrobenzene-d5 | 76.4 | 0 | 33-113 | %Rec | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Surr: 2-Fluorobiphenyl | 62.0 | 0 | 26.6-107 | %Rec | 1 | 9/5/2019 4:08:04 PM | 47113 |
| Surr: 4-Terphenyl-d14 | 63.0 | 0 | 18.7-148 | %Rec | 1 | 9/5/2019 4:08:04 PM | 47113 |

EPA METHOD 8260B: VOLATILES

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Analyst: RAA

Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-12

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 10:05:00 AM

 Lab ID: 1908E25-007
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

Result **Qual Units** DF **Date Analyzed Batch ID Analyses MDL** RL**EPA METHOD 8260B: VOLATILES** Analyst: RAA ND 1.0 8/27/2019 7:22:54 PM R62453 Benzene 0.17 µg/L 1 Toluene ND 0.35 1.0 μg/L 1 8/27/2019 7:22:54 PM R62453 Ethylbenzene ND 0.13 1.0 μg/L 1 8/27/2019 7:22:54 PM R62453 μg/L Methyl tert-butyl ether (MTBE) ND 0.46 8/27/2019 7:22:54 PM R62453 1.0 1 1,2,4-Trimethylbenzene ND 0.21 1 R62453 1.0 µg/L 8/27/2019 7:22:54 PM 1.3.5-Trimethylbenzene ND 0.19 1.0 ua/L 1 8/27/2019 7:22:54 PM R62453 1,2-Dichloroethane (EDC) ND 0.19 µg/L 1 8/27/2019 7:22:54 PM R62453 1.0 1,2-Dibromoethane (EDB) ND 0.17 1.0 μg/L 1 8/27/2019 7:22:54 PM R62453 0.28 1 Naphthalene ND 2.0 µg/L 8/27/2019 7:22:54 PM R62453 1-Methylnaphthalene ND 0.31 4.0 μg/L 1 8/27/2019 7:22:54 PM R62453 0.35 2-Methylnaphthalene ND 4.0 µg/L 1 8/27/2019 7:22:54 PM R62453 Acetone ND 1.2 10 µg/L 1 8/27/2019 7:22:54 PM R62453 Bromobenzene ND 0.24 1.0 µg/L 1 8/27/2019 7:22:54 PM R62453 Bromodichloromethane ND 0.13 1.0 μg/L 1 8/27/2019 7:22:54 PM R62453 ND 0.29 1 8/27/2019 7:22:54 PM R62453 Bromoform 1.0 µg/L ND 0.27 3.0 1 R62453 Bromomethane µg/L 8/27/2019 7:22:54 PM 2-Butanone ND 2.1 10 µg/L 1 8/27/2019 7:22:54 PM R62453 ND 8/27/2019 7:22:54 PM R62453 Carbon disulfide 0.45 10 µg/L 1 Carbon Tetrachloride ND 0.14 1.0 µg/L 1 8/27/2019 7:22:54 PM R62453 Chlorobenzene ND 0.19 1.0 µg/L 1 8/27/2019 7:22:54 PM R62453 Chloroethane ND 0.18 2.0 1 µg/L 8/27/2019 7:22:54 PM R62453 Chloroform ND 0.12 1.0 µg/L 1 8/27/2019 7:22:54 PM R62453 Chloromethane ND 0.32 3.0 1 8/27/2019 7:22:54 PM R62453 µg/L 2-Chlorotoluene ND 0.25 8/27/2019 7:22:54 PM R62453 1.0 µg/L 1 ND 0.23 4-Chlorotoluene 1.0 µg/L 1 8/27/2019 7:22:54 PM R62453 cis-1,2-DCE ND 0.19 1.0 µg/L 1 8/27/2019 7:22:54 PM R62453 cis-1,3-Dichloropropene ND 0.14 μg/L 1 8/27/2019 7:22:54 PM R62453 1.0 1,2-Dibromo-3-chloropropane ND 0.33 2.0 µg/L 1 8/27/2019 7:22:54 PM R62453 Dibromochloromethane ND 0.24 1 1.0 µg/L 8/27/2019 7:22:54 PM R62453 Dibromomethane ND 0.21 1.0 µg/L 1 8/27/2019 7:22:54 PM R62453 1,2-Dichlorobenzene ND 0.30 1.0 µg/L 1 8/27/2019 7:22:54 PM R62453 1,3-Dichlorobenzene ND 0.25 1.0 μg/L 1 8/27/2019 7:22:54 PM R62453 1,4-Dichlorobenzene ND 0.29 1.0 µg/L 1 8/27/2019 7:22:54 PM R62453 ND Dichlorodifluoromethane 0.26 1.0 μg/L 1 8/27/2019 7:22:54 PM R62453 1,1-Dichloroethane ND 0.14 1 8/27/2019 7:22:54 PM R62453 1.0 µg/L 1,1-Dichloroethene ND 0.21 1.0 µg/L 1 8/27/2019 7:22:54 PM R62453 1 1,2-Dichloropropane ND 0.21 1.0 µg/L 8/27/2019 7:22:54 PM R62453 1,3-Dichloropropane ND 0.20 μg/L 1 8/27/2019 7:22:54 PM R62453 1.0 2,2-Dichloropropane ND 0.23 2.0 µg/L 8/27/2019 7:22:54 PM R62453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-12

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 10:05:00 AM

 Lab ID: 1908E25-007
 Matrix: AQUEOUS
 Received Date: 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed I | Batch ID |
|----------------------------------|--------|-------|--------|------|--------|------|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: RAA | |
| 1,1-Dichloropropene | ND | 0.16 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| Hexachlorobutadiene | ND | 0.31 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| 2-Hexanone | ND | 1.5 | 10 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| Isopropylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| 4-Isopropyltoluene | ND | 0.22 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| 4-Methyl-2-pentanone | ND | 0.71 | 10 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| Methylene Chloride | ND | 0.15 | 3.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| n-Butylbenzene | ND | 0.23 | 3.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| n-Propylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| sec-Butylbenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| Styrene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| tert-Butylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| 1,1,1,2-Tetrachloroethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| 1,1,2,2-Tetrachloroethane | ND | 0.55 | 2.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| Tetrachloroethene (PCE) | ND | 0.15 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| trans-1,2-DCE | ND | 0.18 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| trans-1,3-Dichloropropene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| 1,2,3-Trichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| 1,2,4-Trichlorobenzene | ND | 0.20 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| 1,1,1-Trichloroethane | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| 1,1,2-Trichloroethane | ND | 0.22 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| Trichloroethene (TCE) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| Trichlorofluoromethane | ND | 0.19 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| 1,2,3-Trichloropropane | ND | 0.30 | 2.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| Vinyl chloride | ND | 0.18 | 1.0 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| Xylenes, Total | ND | 0.45 | 1.5 | | μg/L | 1 | 8/27/2019 7:22:54 PM | R62453 |
| Surr: 1,2-Dichloroethane-d4 | 94.5 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 7:22:54 PM | R62453 |
| Surr: 4-Bromofluorobenzene | 97.6 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 7:22:54 PM | R62453 |
| Surr: Dibromofluoromethane | 101 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 7:22:54 PM | R62453 |
| Surr: Toluene-d8 | 106 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 7:22:54 PM | R62453 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: RAA | |
| Gasoline Range Organics (GRO) | ND | 0.031 | 0.050 | | mg/L | 1 | 8/27/2019 7:22:54 PM | GW624 |
| Surr: BFB | 103 | 0 | 70-130 | | %Rec | 1 | 8/27/2019 7:22:54 PM | GW624 |
| CARBON DIOXIDE | | | | | | | Analyst: JRR | |
| Total Carbon Dioxide | 140 | 0 | 1.0 | Н | mg CO | 2/ 1 | 8/26/2019 8:59:20 PM | R62429 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | | Analyst: JRR | |
| Conductivity | 440 | 5.0 | 5.0 | | µmhos/ | 'c 1 | 8/26/2019 8:59:20 PM | R62429 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E25

Date Reported: 9/30/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-12

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/22/2019 10:05:00 AM

Lab ID: 1908E25-007 **Matrix:** AQUEOUS **Received Date:** 8/23/2019 8:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|-------|-------|------|---------|-----|----------------------|----------|
| SM2320B: ALKALINITY | | | | | | | Analyst: JRF | 2 |
| Bicarbonate (As CaCO3) | 154.4 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/26/2019 8:59:20 PM | R62429 |
| Carbonate (As CaCO3) | ND | 2.000 | 2.000 | | mg/L Ca | a 1 | 8/26/2019 8:59:20 PM | R62429 |
| Total Alkalinity (as CaCO3) | 154.4 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/26/2019 8:59:20 PM | R62429 |
| SM2540C MOD: TOTAL DISSOLVED SOLID | os | | | | | | Analyst: JM 1 | Γ |
| Total Dissolved Solids | 262 | 40.0 | 40.0 | D | mg/L | 1 | 8/29/2019 1:58:00 PM | 47121 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 30 of 52

Client:

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc.

WO#: **1908E25**

30-Sep-19

| Project: 2019 An | nual GW S | ampling | g Event | | | | | | | |
|----------------------------------|---------------------------|---------------------------------------|-----------|------------------------------------|-----------------------|-------------|---------------|-------------|----------|------|
| Sample ID: MB | SampT | Гуре: МЕ | BLK | Tes | tCode: El | PA Method | 300.0: Anions | 3 | | |
| Client ID: PBW | Batcl | h ID: R6 | 2780 | F | RunNo: 6 2 | 2780 | | | | |
| Prep Date: | Analysis D | Date: 9/ | 9/2019 | S | SeqNo: 2138812 | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride | ND | 0.10 | | | | | | | | |
| Chloride | ND | 0.50 | | | | | | | | |
| Bromide | ND | 0.10 | | | | | | | | |
| Phosphorus, Orthophosphate (As P | ND | 0.50 | | | | | | | | |
| Sulfate | ND | 0.50 | | | | | | | | |
| Nitrate+Nitrite as N | ND | 0.20 | | | | | | | | |
| Sample ID: LCS | Tes | tCode: El | PA Method | 300.0: Anions | 3 | | | | | |
| Client ID: LCSW | ID: LCSW Batch ID: R62780 | | | | RunNo: 6 | 2780 | | | | |
| Prep Date: | Analysis D | Date: 9/ | 9/2019 | 9 | SeqNo: 2 | 138813 | Units: mg/L | Units: mg/L | | |
| Analyte | Result | PQL | | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride | 0.55 | 0.10 | 0.5000 | 0 | 110 | 90 | 110 | | | |
| Chloride | 5.1 | 0.50 | 5.000 | 0 | 101 | 90 | 110 | | | |
| Bromide | 2.6 | 0.10 | 2.500 | 0 | 103 | 90 | 110 | | | |
| Phosphorus, Orthophosphate (As P | 5.0 | 0.50 | 5.000 | 0 | 99.6 | 90 | 110 | | | |
| Sulfate | 10 | 0.50 | 10.00 | 0 | 102 | 90 | 110 | | | |
| Nitrate+Nitrite as N | 3.6 | 0.20 | 3.500 | 0 | 104 | 90 | 110 | | | |
| Sample ID: 1908E25-001CMS | Samp1 | Гуре: М | 6 | Tes | tCode: El | PA Method | 300.0: Anions | 3 | | |
| Client ID: MW-32 | Batcl | h ID: R6 | 2780 | RunNo: 62780 | | | | | | |
| Prep Date: | Analysis D | Date: 9/ | 9/2019 | 8 | SeqNo: 2 | 138815 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride | 2.4 | 0.50 | 2.500 | 0 | 96.0 | 61.6 | 129 | | | |
| Bromide | 17 | 0.50 | 12.50 | 4.395 | 97.5 | 81.9 | 109 | | | |
| Sample ID: 1908E25-001CMS | SD Samp1 | уре: М \$ | SD | Tes | tCode: El | PA Method | 300.0: Anions | 5 | | |
| Client ID: MW-32 | Batcl | h ID: R6 | 2780 | F | RunNo: 6 | 2780 | | | | |
| Prep Date: | Analysis D | nalysis Date: 9/9/2019 SeqNo: 2138816 | | | | Units: mg/L | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Fluoride | 2.4 | 0.50 | 2.500 | 0 | 95.1 | 61.6 | 129 | 0.867 | 20 | |
| Bromide | 17 | 0.50 | 12.50 | 4.395 | 97.2 | 81.9 | 109 | 0.210 | 20 | |
| Sample ID: MB | SampType: MBLK | | | TestCode: EPA Method 300.0: Anions | | | | | | |
| Client ID: PBW | Batch ID: R62809 | | F | RunNo: 6 | 2809 | | | | | |
| Prep Date: | Analysis D | Date: 9/ | 10/2019 | 8 | SeqNo: 2 | 140030 | Units: mg/L | | | |

Qualifiers:

Analyte

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

Result

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

HighLimit

%RPD

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

SPK value SPK Ref Val %REC LowLimit

RL Reporting Limit

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Qual

RPDLimit

Client:

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc.

WO#: **1908E25**

30-Sep-19

| Project: 2019 | Annual GW Sampling Event | | | | |
|----------------------|--------------------------|---------------------------|---------------|---------------------------------------|------|
| Sample ID: MB | SampType: MBLK | TestCode: EPA Method | 300.0: Anions | | |
| Client ID: PBW | Batch ID: R62809 | RunNo: 62809 | | | |
| Prep Date: | Analysis Date: 9/10/2019 | SeqNo: 2140030 | Units: mg/L | | |
| Analyte | Result PQL SPK value | SPK Ref Val %REC LowLimit | HighLimit %F | RPD RPDLimit | Qual |
| Chloride | ND 0.50 | | | | |
| Sulfate | ND 0.50 | | | | |
| Sample ID: LCS | SampType: LCS | TestCode: EPA Method | 300.0: Anions | | |
| Client ID: LCSW | Batch ID: R62809 | RunNo: 62809 | | | |
| Prep Date: | Analysis Date: 9/10/2019 | SeqNo: 2140031 | Units: mg/L | | |
| Analyte | Result PQL SPK value | SPK Ref Val %REC LowLimit | HighLimit %F | RPD RPDLimit | Qual |
| Chloride | 4.9 0.50 5.000 | 0 97.9 90 | 110 | | |
| Sulfate | 10 0.50 10.00 | 0 99.6 90 | 110 | | |
| Sample ID: MB | SampType: MBLK | TestCode: EPA Method | 300.0: Anions | | |
| Client ID: PBW | Batch ID: R62809 | RunNo: 62809 | | | |
| Prep Date: | Analysis Date: 9/10/2019 | SeqNo: 2140085 | Units: mg/L | | |
| Analyte | Result PQL SPK value | SPK Ref Val %REC LowLimit | HighLimit %F | RPD RPDLimit | Qual |
| Chloride | ND 0.50 | | | | |
| Sulfate | ND 0.50 | | | | |
| Sample ID: LCS | SampType: LCS | TestCode: EPA Method | 300.0: Anions | | |
| Client ID: LCSW | Batch ID: R62809 | RunNo: 62809 | | | |
| Prep Date: | Analysis Date: 9/10/2019 | SeqNo: 2140086 | Units: mg/L | | |
| Analyte | Result PQL SPK value | SPK Ref Val %REC LowLimit | HighLimit %F | RPD RPDLimit | Qual |
| Chloride | 5.0 0.50 5.000 | 0 99.0 90 | 110 | | |
| Sulfate | 10 0.50 10.00 | 0 100 90 | 110 | | |
| Sample ID: MB | SampType: MBLK | TestCode: EPA Method | 300.0: Anions | | |
| Client ID: PBW | Batch ID: R62940 | RunNo: 62940 | | | |
| Prep Date: | Analysis Date: 9/13/2019 | SeqNo: 2144926 | Units: mg/L | | |
| Analyte | Result PQL SPK value | SPK Ref Val %REC LowLimit | HighLimit %F | RPD RPDLimit | Qual |
| Nitrate+Nitrite as N | ND 0.20 | | 3 | · · · · · · · · · · · · · · · · · · · | |
| Sample ID: LCS | SampType: LCS | TestCode: EPA Method | 300.0: Anions | | |
| Client ID: LCSW | Batch ID: R62940 | RunNo: 62940 | | | |
| Prep Date: | Analysis Date: 9/13/2019 | SeqNo: 2144928 | Units: mg/L | | |
| Analyte | Result PQL SPK value | SPK Ref Val %REC LowLimit | HighLimit %F | RPD RPDLimit | Qual |
| Nitrate+Nitrite as N | 3.4 0.20 3.500 | 0 98.5 90 | 110 | 3 DE | ~~~ |

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: LCS-47076 SampType: LCS TestCode: EPA Method 8015D: Diesel Range

Client ID: LCSW Batch ID: 47076 RunNo: 62454

Prep Date: 8/27/2019 Analysis Date: 8/28/2019 SegNo: 2126320 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Diesel Range Organics (DRO)
 2.5
 0.40
 2.500
 0
 100
 66.7
 148

 Surr: DNOP
 0.24
 0.2500
 97.4
 52.7
 168

Sample ID: MB-47076 SampType: MBLK TestCode: EPA Method 8015D: Diesel Range

Client ID: PBW Batch ID: 47076 RunNo: 62454

Prep Date: 8/27/2019 Analysis Date: 8/28/2019 SeqNo: 2126322 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Diesel Range Organics (DRO) ND 0.40
Motor Oil Range Organics (MRO) ND 2.5

Surr: DNOP 0.50 0.5000 99.8 52.7 168

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: 100ng lcs | SampType: LCS | | | Tes | tCode: El | ATILES | | | | |
|-----------------------------|------------------|------------------|-----------|-------------|-----------|----------|-------------|------|----------|------|
| Client ID: LCSW | Batch ID: R62453 | | | F | RunNo: 6 | 2453 | | | | |
| Prep Date: | Analysis D | ate: 8/ 2 | 27/2019 | 8 | SeqNo: 2 | 124995 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 18 | 1.0 | 20.00 | 0 | 89.9 | 70 | 130 | | | |
| Toluene | 19 | 1.0 | 20.00 | 0 | 92.9 | 70 | 130 | | | |
| Chlorobenzene | 19 | 1.0 | 20.00 | 0 | 92.7 | 70 | 130 | | | |
| 1,1-Dichloroethene | 17 | 1.0 | 20.00 | 0 | 84.1 | 70 | 130 | | | |
| Trichloroethene (TCE) | 17 | 1.0 | 20.00 | 0 | 85.5 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.4 | | 10.00 | | 93.5 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.5 | | 10.00 | | 95.4 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.4 | | 10.00 | | 94.0 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.6 | | 10.00 | | 95.9 | 70 | 130 | | | |

| Sample ID: rb | Sampl | ype: M E | BLK | les | tCode: El | PA Method | 8260B: VOLA | ATILES | | |
|----------------------|------------|-----------------|-----------|-------------|-----------|-----------|-------------|--------|----------|------|
| Client ID: PBW | Batch | ID: R6 | 2453 | F | RunNo: 6 | 2453 | | | | |
| Prep Date: | Analysis D | ate: 8/ | 27/2019 | 8 | SeqNo: 2 | 125016 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |

| 10100110 | | 1.0 |
|--------------------------------|----|-----|
| Ethylbenzene | ND | 1.0 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 |
| 1,2,4-Trimethylbenzene | ND | 1.0 |
| 1,3,5-Trimethylbenzene | ND | 1.0 |
| 1,2-Dichloroethane (EDC) | ND | 1.0 |
| 1,2-Dibromoethane (EDB) | ND | 1.0 |
| Naphthalene | ND | 2.0 |
| 1-Methylnaphthalene | ND | 4.0 |
| 2-Methylnaphthalene | ND | 4.0 |
| Acetone | ND | 10 |
| Bromobenzene | ND | 1.0 |
| Bromodichloromethane | ND | 1.0 |
| Bromoform | ND | 1.0 |
| Bromomethane | ND | 3.0 |
| 2-Butanone | ND | 10 |
| Carbon disulfide | ND | 10 |
| Carbon Tetrachloride | ND | 1.0 |
| Chlorobenzene | ND | 1.0 |
| Chloroethane | ND | 2.0 |
| Chloroform | ND | 1.0 |
| Chloromethane | ND | 3.0 |
| 2-Chlorotoluene | ND | 1.0 |

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

TestCode: EPA Method 8260B: VOLATILES Sample ID: rb SampType: MBLK Client ID: PBW Batch ID: R62453 RunNo: 62453 Prep Date: Analysis Date: 8/27/2019 SeqNo: 2125016 Units: µg/L PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result 4-Chlorotoluene ND 1.0 cis-1.2-DCE ND 1.0 ND cis-1,3-Dichloropropene 1.0 1,2-Dibromo-3-chloropropane ND 2.0 Dibromochloromethane ND 1.0 Dibromomethane ND 1.0 1,2-Dichlorobenzene ND 1.0 1,3-Dichlorobenzene ND 1.0 1,4-Dichlorobenzene ND 1.0 ND 1.0 Dichlorodifluoromethane ND 1.0 1,1-Dichloroethane ND 1.0 1,1-Dichloroethene ND 1,2-Dichloropropane 1.0 1,3-Dichloropropane ND 1.0 2,2-Dichloropropane ND 2.0 1,1-Dichloropropene ND 1.0 ND Hexachlorobutadiene 1.0 2-Hexanone ND 10 Isopropylbenzene ND 1.0 4-Isopropyltoluene ND 1.0 ND 4-Methyl-2-pentanone 10 Methylene Chloride 0.23 3.0 n-Butylbenzene ND 3.0 n-Propylbenzene ND 1.0 sec-Butylbenzene ND 1.0 ND 1.0 Styrene tert-Butylbenzene ND 1.0 1,1,1,2-Tetrachloroethane ND 1.0 1,1,2,2-Tetrachloroethane ND 2.0 Tetrachloroethene (PCE) ND 1.0 trans-1,2-DCE ND 1.0 ND 1.0 trans-1,3-Dichloropropene 1,2,3-Trichlorobenzene ND 1.0 ND 1,2,4-Trichlorobenzene 1.0 1,1,1-Trichloroethane ND 1.0 1,1,2-Trichloroethane ND 1.0 Trichloroethene (TCE) ND 1.0 Trichlorofluoromethane ND 1.0 1,2,3-Trichloropropane ND 2.0

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: rb | SampT | SampType: MBLK | | | TestCode: EPA Method 8260B: VOLATILES | | | | | |
|-----------------------------|------------|-----------------------|-----------|-------------|---------------------------------------|----------|-------------|------|----------|------|
| Client ID: PBW | Batch | Batch ID: R62453 | | | RunNo: 6 2 | 2453 | | | | |
| Prep Date: | Analysis D | Date: 8/ 2 | 27/2019 | 8 | SeqNo: 2 | 125016 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Vinyl chloride | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.7 | | 10.00 | | 97.4 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.7 | | 10.00 | | 97.2 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.7 | | 10.00 | | 96.8 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.8 | | 10.00 | | 98.4 | 70 | 130 | | | |

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: 1908E25

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: Ics-47113 | SampT | SampType: LCS TestCode: EPA Method 8270C: Semivolatiles | | | | | | | | |
|----------------------------|------------|---|-------------------|-------------|----------|----------|-------------|------|----------|------|
| Client ID: LCSW | Batch | n ID: 47 ′ | 7113 RunNo: 62675 | | | | | | | |
| Prep Date: 8/28/2019 | Analysis D | ate: 9/ | 5/2019 | 5 | SeqNo: 2 | 134037 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Acenaphthene | 70 | 10 | 100.0 | 0 | 69.8 | 32.2 | 94 | | | |
| 4-Chloro-3-methylphenol | 130 | 10 | 200.0 | 0 | 67.5 | 37.7 | 101 | | | |
| 2-Chlorophenol | 140 | 10 | 200.0 | 0 | 72.4 | 32.6 | 90.1 | | | |
| 1,4-Dichlorobenzene | 57 | 10 | 100.0 | 0 | 57.4 | 30 | 87.2 | | | |
| 2,4-Dinitrotoluene | 66 | 10 | 100.0 | 0 | 66.4 | 35.9 | 85.8 | | | |
| N-Nitrosodi-n-propylamine | 73 | 10 | 100.0 | 0 | 73.4 | 37.1 | 108 | | | |
| 4-Nitrophenol | 87 | 10 | 200.0 | 0 | 43.3 | 22.4 | 86.6 | | | |
| Pentachlorophenol | 110 | 20 | 200.0 | 0 | 57.0 | 31.6 | 91 | | | |
| Phenol | 88 | 10 | 200.0 | 0 | 43.8 | 21.7 | 84.9 | | | |
| Pyrene | 74 | 10 | 100.0 | 0 | 74.3 | 46.3 | 103 | | | |
| 1,2,4-Trichlorobenzene | 62 | 10 | 100.0 | 0 | 61.9 | 30.2 | 88.3 | | | |
| Surr: 2-Fluorophenol | 100 | | 200.0 | | 50.2 | 15 | 101 | | | |
| Surr: Phenol-d5 | 87 | | 200.0 | | 43.6 | 15 | 84.6 | | | |
| Surr: 2,4,6-Tribromophenol | 120 | | 200.0 | | 58.6 | 27.8 | 112 | | | |
| Surr: Nitrobenzene-d5 | 74 | | 100.0 | | 73.8 | 33 | 113 | | | |
| Surr: 2-Fluorobiphenyl | 70 | | 100.0 | | 69.8 | 26.6 | 107 | | | |
| Surr: 4-Terphenyl-d14 | 76 | | 100.0 | | 76.1 | 18.7 | 148 | | | |

| Sample ID: mb-47113 | SampType: MBLK | | | Tes | TestCode: EPA Method 8270C: Semivolatiles | | | | | |
|-----------------------------|----------------|---------------|-----------|---------------------|---|----------|-------------|------|----------|------|
| Client ID: PBW | Batch | 1D: 47 | 113 | RunNo: 62675 | | | | | | |
| Prep Date: 8/28/2019 | Analysis D | ate: 9/ | 5/2019 | 8 | SeqNo: 2 | 134038 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Acenaphthene | ND | 10 | | | | | | | | |
| Acenaphthylene | ND | 10 | | | | | | | | |
| Aniline | ND | 10 | | | | | | | | |
| Anthracene | ND | 10 | | | | | | | | |
| Azobenzene | ND | 10 | | | | | | | | |
| Benz(a)anthracene | ND | 10 | | | | | | | | |
| Benzo(a)pyrene | ND | 10 | | | | | | | | |
| Benzo(b)fluoranthene | ND | 10 | | | | | | | | |
| Benzo(g,h,i)perylene | ND | 10 | | | | | | | | |
| Benzo(k)fluoranthene | ND | 10 | | | | | | | | |
| Benzoic acid | ND | 20 | | | | | | | | |
| Benzyl alcohol | ND | 10 | | | | | | | | |
| Bis(2-chloroethoxy)methane | ND | 10 | | | | | | | | |
| Bis(2-chloroethyl)ether | ND | 10 | | | | | | | | |
| Bis(2-chloroisopropyl)ether | ND | 10 | | | | | | | | |
| Bis(2-ethylhexyl)phthalate | ND | 10 | | | | | | | | |

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: mb-47113 SampType: MBLK TestCode: EPA Method 8270C: Semivolatiles Client ID: PBW Batch ID: 47113 RunNo: 62675 Prep Date: 8/28/2019 Analysis Date: 9/5/2019 SeqNo: 2134038 Units: µg/L PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result 4-Bromophenyl phenyl ether ND 10 Butyl benzyl phthalate ND 10 ND 10 Carbazole 4-Chloro-3-methylphenol ND 10 4-Chloroaniline ND 10 2-Chloronaphthalene ND 10 2-Chlorophenol ND 10 4-Chlorophenyl phenyl ether ND 10 Chrysene ND 10 Di-n-butyl phthalate ND 10 Di-n-octyl phthalate ND 10 Dibenz(a,h)anthracene 10 ND ND 10 Dibenzofuran 1,2-Dichlorobenzene ND 10 1,3-Dichlorobenzene ND 10 10 1,4-Dichlorobenzene ND ND 10 3,3'-Dichlorobenzidine Diethyl phthalate ND 10 Dimethyl phthalate ND 10 2,4-Dichlorophenol ND 20 ND 2,4-Dimethylphenol 10 ND 20 4,6-Dinitro-2-methylphenol 2,4-Dinitrophenol 4.4 20 J 2,4-Dinitrotoluene ND 10 2.6-Dinitrotoluene ND 10 Fluoranthene ND 10 Fluorene ND 10 Hexachlorobenzene ND 10 Hexachlorobutadiene ND 10 Hexachlorocyclopentadiene ND 10 Hexachloroethane ND 10 ND Indeno(1,2,3-cd)pyrene 10 10 Isophorone ND ND 10 1-Methylnaphthalene 2-Methylnaphthalene ND 10 2-Methylphenol ND 10 3+4-Methylphenol ND 10 N-Nitrosodi-n-propylamine ND 10 N-Nitrosodimethylamine ND 10

- * Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: mb-47113 | SampType: MBLK | | | TestCode: EPA Method 8270C: Semivolatiles | | | | | | |
|----------------------------|----------------|----------------|-----------|---|-----------|-----------|-------------|-----------|----------|------|
| Client ID: PBW | Batch | ID: 47 | 113 | RunNo: 62675 | | | | | | |
| Prep Date: 8/28/2019 | Analysis Da | ate: 9/ | 5/2019 | S | SeqNo: 2 | 134038 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| N-Nitrosodiphenylamine | ND | 10 | | | | | | | | |
| Naphthalene | ND | 10 | | | | | | | | |
| 2-Nitroaniline | ND | 10 | | | | | | | | |
| 3-Nitroaniline | ND | 10 | | | | | | | | |
| 4-Nitroaniline | ND | 10 | | | | | | | | |
| Nitrobenzene | ND | 10 | | | | | | | | |
| 2-Nitrophenol | ND | 10 | | | | | | | | |
| 4-Nitrophenol | ND | 10 | | | | | | | | |
| Pentachlorophenol | ND | 20 | | | | | | | | |
| Phenanthrene | ND | 10 | | | | | | | | |
| Phenol | ND | 10 | | | | | | | | |
| Pyrene | ND | 10 | | | | | | | | |
| Pyridine | ND | 10 | | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 10 | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 10 | | | | | | | | |
| 2,4,6-Trichlorophenol | ND | 10 | | | | | | | | |
| Surr: 2-Fluorophenol | 1.0 | | 200.0 | | 0.510 | 15 | 101 | | | S |
| Surr: Phenol-d5 | 7.3 | | 200.0 | | 3.65 | 15 | 84.6 | | | S |
| Surr: 2,4,6-Tribromophenol | 0.24 | | 200.0 | | 0.120 | 27.8 | 112 | | | S |
| Surr: Nitrobenzene-d5 | 62 | | 100.0 | | 62.0 | 33 | 113 | | | |
| Surr: 2-Fluorobiphenyl | 56 | | 100.0 | | 55.5 | 26.6 | 107 | | | |
| Surr: 4-Terphenyl-d14 | 63 | | 100.0 | | 63.4 | 18.7 | 148 | | | |
| Sample ID: Icsd-47113 | SampTy | /pe: LC | SD | Tes | tCode: El | PA Method | 8270C: Semi | volatiles | | |

| Client ID: LCSS02 | Batch | 1D: 47 1 | 113 | F | RunNo: 6 | 2675 | | | | |
|---------------------------|------------|-----------------|-----------|-------------|----------|----------|-------------|------|----------|------|
| Prep Date: 8/28/2019 | Analysis D | ate: 9/ | 5/2019 | 5 | SeqNo: 2 | 134834 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Acenaphthene | 80 | 10 | 100.0 | 0 | 80.2 | 32.2 | 94 | 13.8 | 32.9 | |
| 4-Chloro-3-methylphenol | 180 | 10 | 200.0 | 0 | 89.4 | 37.7 | 101 | 27.9 | 29.9 | |
| 2-Chlorophenol | 170 | 10 | 200.0 | 0 | 82.6 | 32.6 | 90.1 | 13.2 | 28.5 | |
| 1,4-Dichlorobenzene | 66 | 10 | 100.0 | 0 | 66.4 | 15 | 87.2 | 14.6 | 44.9 | |
| 2,4-Dinitrotoluene | 73 | 10 | 100.0 | 0 | 73.0 | 35.9 | 85.8 | 9.41 | 28.5 | |
| N-Nitrosodi-n-propylamine | 89 | 10 | 100.0 | 0 | 89.1 | 37.1 | 108 | 19.3 | 29.9 | |
| 4-Nitrophenol | 100 | 10 | 200.0 | 0 | 50.3 | 15 | 86.6 | 14.9 | 68 | |
| Pentachlorophenol | 120 | 20 | 200.0 | 0 | 62.1 | 31.6 | 91 | 8.45 | 39.5 | |
| Phenol | 100 | 10 | 200.0 | 0 | 50.7 | 15 | 84.9 | 14.4 | 44.2 | |
| Pyrene | 79 | 10 | 100.0 | 0 | 78.9 | 46.3 | 103 | 5.93 | 23.8 | |
| 1,2,4-Trichlorobenzene | 71 | 10 | 100.0 | 0 | 71.4 | 15.7 | 88.3 | 14.3 | 38 | |

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: 1908E25

30-Sep-19

| Chent: | Western Refining Southwest, Inc. | | | | | | | | |
|----------|----------------------------------|--|--|--|--|--|--|--|--|
| Project: | 2019 Annual GW Sampling Event | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

| Sample ID: Icsd-47113 | SampTy | /pe: LC | SD | Tes | tCode: El | volatiles | | | | |
|----------------------------|-------------|-----------------|-----------|-------------|-----------|-----------|-------------|------|----------|------|
| Client ID: LCSS02 | Batch | Batch ID: 47113 | | | RunNo: 6 | 2675 | | | | |
| Prep Date: 8/28/2019 | Analysis Da | ate: 9/ | 5/2019 | S | SeqNo: 2 | 134834 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 2-Fluorophenol | 110 | | 200.0 | | 56.5 | 15 | 101 | 0 | 0 | |
| Surr: Phenol-d5 | 99 | | 200.0 | | 49.4 | 15 | 84.6 | 0 | 0 | |
| Surr: 2,4,6-Tribromophenol | 130 | | 200.0 | | 65.7 | 27.8 | 112 | 0 | 0 | |
| Surr: Nitrobenzene-d5 | 85 | | 100.0 | | 85.3 | 33 | 113 | 0 | 0 | |
| Surr: 2-Fluorobiphenyl | 75 | | 100.0 | | 75.0 | 26.6 | 107 | 0 | 0 | |
| Surr: 4-Terphenyl-d14 | 80 | | 100.0 | | 80.4 | 18.7 | 148 | 0 | 0 | |

| Sample ID: Ics-47316 | SampT | ype: LC | s | Tes | tCode: El | PA Method | 8270C: Semi | volatiles | | |
|----------------------------|------------|----------------|-----------|-------------|-----------|-----------|-------------|-----------|----------|------|
| Client ID: LCSW | Batch | ID: 47 | 316 | F | RunNo: 6 | 2883 | | | | |
| Prep Date: 9/6/2019 | Analysis D | ate: 9/ | 12/2019 | \$ | SeqNo: 2 | 143013 | Units: %Red | : | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 2-Fluorophenol | 92 | | 200.0 | | 45.8 | 15 | 101 | | | |
| Surr: Phenol-d5 | 72 | | 200.0 | | 35.9 | 15 | 84.6 | | | |
| Surr: 2,4,6-Tribromophenol | 110 | | 200.0 | | 53.1 | 27.8 | 112 | | | |
| Surr: Nitrobenzene-d5 | 67 | | 100.0 | | 66.9 | 33 | 113 | | | |
| Surr: 2-Fluorobiphenyl | 60 | | 100.0 | | 59.8 | 26.6 | 107 | | | |
| Surr: 4-Terphenyl-d14 | 54 | | 100.0 | | 54.1 | 18.7 | 148 | | | |

| Sample ID: Icsd-47316 | SampT | ype: LC | SD | Tes | tCode: El | PA Method | 8270C: Semi | volatiles | | |
|----------------------------|------------|----------------|-----------|-------------|-----------|-----------|-------------|-----------|----------|------|
| Client ID: LCSS02 | Batch | ID: 47 | 316 | F | RunNo: 6 | 2883 | | | | |
| Prep Date: 9/6/2019 | Analysis D | ate: 9/ | 12/2019 | 8 | SeqNo: 2 | 143016 | Units: %Red | ; | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 2-Fluorophenol | 120 | | 200.0 | | 58.8 | 15 | 101 | 0 | 0 | • |
| Surr: Phenol-d5 | 92 | | 200.0 | | 46.1 | 15 | 84.6 | 0 | 0 | |
| Surr: 2,4,6-Tribromophenol | 130 | | 200.0 | | 66.7 | 27.8 | 112 | 0 | 0 | |
| Surr: Nitrobenzene-d5 | 82 | | 100.0 | | 82.4 | 33 | 113 | 0 | 0 | |
| Surr: 2-Fluorobiphenyl | 80 | | 100.0 | | 80.3 | 26.6 | 107 | 0 | 0 | |
| Surr: 4-Terphenyl-d14 | 68 | | 100.0 | | 67.9 | 18.7 | 148 | 0 | 0 | |

| Sample ID: mb-47316 | SampT | ype: ME | BLK | Tes | tCode: EF | PA Method | 8270C: Semi | volatiles | | |
|----------------------------|------------|----------------|-----------|-------------|------------------|-----------|-------------|-----------|----------|------|
| Client ID: PBW | Batch | ID: 47 | 316 | R | RunNo: 62 | 2883 | | | | |
| Prep Date: 9/6/2019 | Analysis D | ate: 9/ | 12/2019 | S | SeqNo: 2 | 143019 | Units: %Red | ; | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 2-Fluorophenol | 81 | | 200.0 | | 40.4 | 15 | 101 | | | |
| Surr: Phenol-d5 | 62 | | 200.0 | | 30.9 | 15 | 84.6 | | | |
| Surr: 2,4,6-Tribromophenol | 92 | | 200.0 | | 45.8 | 27.8 | 112 | | | |
| Surr: Nitrobenzene-d5 | 54 | | 100.0 | | 53.9 | 33 | 113 | | | |

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: mb-47316 SampType: MBLK TestCode: EPA Method 8270C: Semivolatiles

Client ID: PBW Batch ID: 47316 RunNo: 62883

Prep Date: 9/6/2019 Analysis Date: 9/12/2019 SegNo: 2143019 Units: %Rec

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Surr: 2-Fluorobiphenyl
 48
 100.0
 48.0
 26.6
 107

 Surr: 4-Terphenyl-d14
 49
 100.0
 49.1
 18.7
 148

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: Ics-1 99.8uS eC SampType: Ics TestCode: SM2510B: Specific Conductance

Client ID: LCSW Batch ID: R62429 RunNo: 62429

Prep Date: Analysis Date: 8/26/2019 SeqNo: 2122562 Units: µmhos/cm

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Conductivity 100 5.0 99.80 0 101 85 115

Sample ID: Ics-2 99.8uS eC SampType: Ics TestCode: SM2510B: Specific Conductance

Client ID: LCSW Batch ID: R62429 RunNo: 62429

Prep Date: Analysis Date: 8/26/2019 SeqNo: 2122588 Units: µmhos/cm

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Conductivity 100 5.0 99.80 0 105 85 115

Sample ID: Ics-1 99.8uS eC SampType: Ics TestCode: SM2510B: Specific Conductance

Client ID: LCSW Batch ID: R62496 RunNo: 62496

Prep Date: Analysis Date: 8/28/2019 SeqNo: 2126130 Units: µmhos/cm

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Conductivity 100 5.0 99.80 0 100 85 115

Sample ID: Ics-2 99.8uS eC SampType: Ics TestCode: SM2510B: Specific Conductance

Client ID: LCSW Batch ID: R62496 RunNo: 62496

Prep Date: Analysis Date: 8/28/2019 SeqNo: 2126193 Units: µmhos/cm

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Conductivity 100 5.0 99.80 0 104 85 115

Qualifiers:

* Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

J

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: MB-47428 SampType: MBLK TestCode: EPA Method 7470: Mercury

Client ID: PBW Batch ID: 47428 RunNo: 62872

Prep Date: 9/11/2019 Analysis Date: 9/12/2019 SeqNo: 2142285 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.000039 0.00020

Sample ID: LCS-47428 SampType: LCS TestCode: EPA Method 7470: Mercury

Client ID: LCSW Batch ID: 47428 RunNo: 62872

Prep Date: 9/11/2019 Analysis Date: 9/12/2019 SeqNo: 2142286 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.0047 0.00020 0.005000 0 93.1 80 120

Sample ID: 1908E25-002DMS SampType: MS TestCode: EPA Method 7470: Mercury

Client ID: MW-27 Batch ID: 47428 RunNo: 62872

Prep Date: 9/11/2019 Analysis Date: 9/12/2019 SeqNo: 2142289 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.0047 0.00020 0.005000 .00005462 92.4 75 125

Sample ID: 1908E25-002DMSD SampType: MSD TestCode: EPA Method 7470: Mercury

Client ID: MW-27 Batch ID: 47428 RunNo: 62872

Prep Date: 9/11/2019 Analysis Date: 9/12/2019 SeqNo: 2142290 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.0049 0.00020 0.005000 .0005462 96.8 75 125 4.50 20

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

SampType: LCS

WO#: 1908E25

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: MB-A SampType: MBLK TestCode: EPA Method 6010B: Dissolved Metals Client ID: PBW Batch ID: A62764 RunNo: 62764 Prep Date: Analysis Date: 9/9/2019 SeqNo: 2137952 Units: mg/L PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Arsenic ND 0.020 Barium ND 0.020 ND 0.0020 Cadmium Calcium ND 1.0 Chromium ND 0.0060 Copper ND 0.0060 Iron ND 0.020 ND 0.0050 Lead Magnesium ND 1.0 ND 0.0020 Manganese Potassium ND 1.0 ND 0.050 Selenium ND 0.0050 Silver Sodium ND 1.0 Uranium ND 0.10 Zinc ND 0.020

| Client ID: LCSW | Bato | ch ID: A6 | 2764 | F | RunNo: 62 | 2764 | | | | |
|-----------------|----------|-----------------|-----------|-------------|-----------|----------|-------------|------|----------|------|
| Prep Date: | Analysis | Date: 9/ | 9/2019 | S | SeqNo: 2 | 137953 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | 0.48 | 0.020 | 0.5000 | 0 | 95.6 | 80 | 120 | | | |
| Barium | 0.48 | 0.020 | 0.5000 | 0 | 95.1 | 80 | 120 | | | |
| Cadmium | 0.50 | 0.0020 | 0.5000 | 0 | 99.4 | 80 | 120 | | | |
| Calcium | 50 | 1.0 | 50.00 | 0 | 100 | 80 | 120 | | | |
| Chromium | 0.49 | 0.0060 | 0.5000 | 0 | 97.1 | 80 | 120 | | | |
| Copper | 0.50 | 0.0060 | 0.5000 | 0 | 100 | 80 | 120 | | | |
| Iron | 0.49 | 0.020 | 0.5000 | 0 | 98.6 | 80 | 120 | | | |
| Lead | 0.49 | 0.0050 | 0.5000 | 0 | 98.6 | 80 | 120 | | | |
| Magnesium | 50 | 1.0 | 50.00 | 0 | 100 | 80 | 120 | | | |
| Manganese | 0.48 | 0.0020 | 0.5000 | 0 | 97.0 | 80 | 120 | | | |
| Potassium | 50 | 1.0 | 50.00 | 0 | 99.3 | 80 | 120 | | | |
| Selenium | 0.48 | 0.050 | 0.5000 | 0 | 96.3 | 80 | 120 | | | |
| Silver | 0.10 | 0.0050 | 0.1000 | 0 | 99.8 | 80 | 120 | | | |
| Sodium | 50 | 1.0 | 50.00 | 0 | 99.6 | 80 | 120 | | | |
| Uranium | 0.46 | 0.10 | 0.5000 | 0 | 91.3 | 80 | 120 | | | |
| Zinc | 0.48 | 0.020 | 0.5000 | 0 | 96.5 | 80 | 120 | | | |

Qualifiers:

Sample ID: LCS-A

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

TestCode: EPA Method 6010B: Dissolved Metals

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: 1908E25-001EMS | Samp | Туре: МЅ |) | Tes | tCode: El | PA Method | 6010B: Disso | lved Meta | als | |
|---------------------------|----------|-------------------|-----------|-------------|-----------|-----------|--------------|-----------|----------|------|
| Client ID: MW-32 | Bato | h ID: A6 | 2764 | F | RunNo: 6 | 2764 | | | | |
| Prep Date: | Analysis | Date: 9/ 9 | 9/2019 | \$ | SeqNo: 2 | 138005 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Barium | 0.49 | 0.020 | 0.5000 | 0.01761 | 94.7 | 75 | 125 | | | |
| Cadmium | 0.51 | 0.0020 | 0.5000 | 0 | 103 | 75 | 125 | | | |
| Chromium | 0.48 | 0.0060 | 0.5000 | 0 | 95.9 | 75 | 125 | | | |
| Copper | 0.54 | 0.0060 | 0.5000 | 0 | 108 | 75 | 125 | | | |
| Iron | 0.49 | 0.020 | 0.5000 | 0 | 97.2 | 75 | 125 | | | |
| Lead | 0.47 | 0.0050 | 0.5000 | 0 | 93.8 | 75 | 125 | | | |
| Magnesium | 99 | 1.0 | 50.00 | 49.89 | 97.8 | 75 | 125 | | | |
| Manganese | 0.47 | 0.0020 | 0.5000 | 0 | 94.2 | 75 | 125 | | | |
| Potassium | 53 | 1.0 | 50.00 | 3.662 | 99.0 | 75 | 125 | | | |
| Selenium | 0.59 | 0.050 | 0.5000 | 0 | 117 | 75 | 125 | | | |
| Silver | 0.11 | 0.0050 | 0.1000 | 0.004893 | 100 | 75 | 125 | | | |
| Zinc | 0.50 | 0.020 | 0.5000 | 0.02045 | 96.8 | 75 | 125 | | | |

| Sample ID: 1908E25-001EMS | D Samp | Type: MS | SD | Tes | tCode: El | PA Method | 6010B: Disso | Ived Meta | als | |
|---------------------------|---------------|-------------------|-----------|-------------|-----------|-----------|--------------|-----------|----------|------|
| Client ID: MW-32 | Bato | ch ID: A6 | 2764 | F | RunNo: 6 | 2764 | | | | |
| Prep Date: | Analysis | Date: 9/ 9 | 9/2019 | 8 | SeqNo: 2 | 138006 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Barium | 0.49 | 0.020 | 0.5000 | 0.01761 | 93.9 | 75 | 125 | 0.847 | 20 | · |
| Cadmium | 0.51 | 0.0020 | 0.5000 | 0 | 102 | 75 | 125 | 0.464 | 20 | |
| Chromium | 0.47 | 0.0060 | 0.5000 | 0 | 94.9 | 75 | 125 | 0.954 | 20 | |
| Copper | 0.54 | 0.0060 | 0.5000 | 0 | 107 | 75 | 125 | 0.325 | 20 | |
| Iron | 0.49 | 0.020 | 0.5000 | 0 | 98.5 | 75 | 125 | 1.35 | 20 | |
| Lead | 0.46 | 0.0050 | 0.5000 | 0 | 92.6 | 75 | 125 | 1.23 | 20 | |
| Magnesium | 99 | 1.0 | 50.00 | 49.89 | 97.7 | 75 | 125 | 0.0664 | 20 | |
| Manganese | 0.47 | 0.0020 | 0.5000 | 0 | 93.4 | 75 | 125 | 0.800 | 20 | |
| Potassium | 53 | 1.0 | 50.00 | 3.662 | 99.0 | 75 | 125 | 0.0371 | 20 | |
| Selenium | 0.58 | 0.050 | 0.5000 | 0 | 116 | 75 | 125 | 1.61 | 20 | |
| Silver | 0.10 | 0.0050 | 0.1000 | 0.004893 | 99.5 | 75 | 125 | 0.873 | 20 | |
| Zinc | 0.51 | 0.020 | 0.5000 | 0.02045 | 97.1 | 75 | 125 | 0.264 | 20 | |

| Sample ID: 1908E25-001EMS | SampT | ype: MS | 3 | Tes | tCode: El | PA Method | 6010B: Disso | lved Meta | als | |
|---------------------------|------------|----------------|-----------|-------------|-----------|-----------|--------------|-----------|----------|------|
| Client ID: MW-32 | Batch | ID: A6 | 2764 | R | tunNo: 6 | 2764 | | | | |
| Prep Date: | Analysis D | ate: 9/ | 9/2019 | S | SeqNo: 2 | 138098 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | 0.55 | 0.020 | 0.5000 | 0 | 111 | 75 | 125 | | | |
| Uranium | 0.33 | 0.10 | 0.5000 | 0 | 65.6 | 75 | 125 | | | S |

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: 1908E25-001EMSD SampType: MSD TestCode: EPA Method 6010B: Dissolved Metals MW-32 Client ID: RunNo: 62764 Batch ID: A62764 Prep Date: Analysis Date: 9/9/2019 SeqNo: 2138099 Units: mg/L PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Arsenic 0.59 0.020 0.5000 0 119 75 125 7.03 20 Uranium 0.34 0.10 0.5000 0 67.1 75 125 2.23 20 S

Sample ID: MB-A TestCode: EPA Method 6010B: Dissolved Metals SampType: MBLK Client ID: PBW Batch ID: A62841 RunNo: 62841 Prep Date: Analysis Date: 9/11/2019 SeqNo: 2141041 Units: mg/L Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Calcium ND 1.0

Sample ID: LCS-A SampType: LCS TestCode: EPA Method 6010B: Dissolved Metals Client ID: LCSW Batch ID: A62841 RunNo: 62841 Prep Date: Analysis Date: 9/11/2019 SeqNo: 2141042 Units: mg/L Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 49 1.0 50.00 98.8 80 120 0 Calcium

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: MB-47071 | Samp | Туре: МЕ | BLK | Tes | ıls | | | | | |
|----------------------------|------------|-----------------|-----------|-------------|----------|----------|-------------|------|----------|------|
| Client ID: PBW | Bato | Batch ID: 47071 | | | RunNo: 6 | 2682 | | | | |
| Prep Date: 8/26/2019 | Analysis I | Date: 9/ | 5/2019 | S | SeqNo: 2 | 134130 | Units: mg/L | | | ļ |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | ND | 0.020 | | | | | | | | |
| Barium | ND | 0.020 | | | | | | | | |
| Cadmium | ND | 0.0020 | | | | | | | | |
| Chromium | ND | 0.0060 | | | | | | | | |
| Lead | ND | 0.0050 | | | | | | | | |
| Selenium | ND | 0.050 | | | | | | | | |
| Silver | ND | 0.0050 | | | | | | | | |

| Sample ID: LCS-47071 | SampT | SampType: LCS TestCode: EPA 6010B: Total Recoverable Metals | | | | | | | ıls | |
|----------------------|------------|---|-----------|-------------|-----------|----------|-------------|------|----------|------|
| Client ID: LCSW | Batch | n ID: 470 |)71 | R | RunNo: 62 | 2682 | | | | |
| Prep Date: 8/26/2019 | Analysis D | ate: 9/ | 5/2019 | S | SeqNo: 21 | 134131 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | 0.48 | 0.020 | 0.5000 | 0 | 96.7 | 80 | 120 | | | |
| Barium | 0.47 | 0.020 | 0.5000 | 0 | 94.6 | 80 | 120 | | | |
| Cadmium | 0.50 | 0.0020 | 0.5000 | 0 | 100 | 80 | 120 | | | |
| Chromium | 0.48 | 0.0060 | 0.5000 | 0 | 96.6 | 80 | 120 | | | |
| Lead | 0.49 | 0.0050 | 0.5000 | 0 | 97.7 | 80 | 120 | | | |
| Selenium | 0.51 | 0.050 | 0.5000 | 0 | 102 | 80 | 120 | | | |
| Silver | 0.10 | 0.0050 | 0.1000 | 0 | 100 | 80 | 120 | | | |

| Sample ID: 1908E25-001DMS | Samp | SampType: MS TestCode: EPA 6010B: Total Recoverable Metals | | | | | | | | |
|---------------------------|------------|--|-----------|-------------|----------|----------|-------------|------|----------|------|
| Client ID: MW-32 | Bato | h ID: 470 | 071 | F | RunNo: 6 | 2682 | | | | |
| Prep Date: 8/26/2019 | Analysis I | Date: 9/ | 5/2019 | S | SeqNo: 2 | 134368 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | 0.48 | 0.020 | 0.5000 | 0 | 96.4 | 75 | 125 | | | |
| Barium | 0.47 | 0.020 | 0.5000 | 0.02396 | 90.0 | 75 | 125 | | | |
| Cadmium | 0.51 | 0.0020 | 0.5000 | 0 | 103 | 75 | 125 | | | |
| Chromium | 0.44 | 0.0060 | 0.5000 | 0 | 88.9 | 75 | 125 | | | |
| Lead | 0.43 | 0.0050 | 0.5000 | 0 | 85.8 | 75 | 125 | | | |
| Selenium | 0.52 | 0.050 | 0.5000 | 0 | 104 | 75 | 125 | | | |
| Silver | 0.11 | 0.0050 | 0.1000 | 0.004506 | 102 | 75 | 125 | | | |

| Sample ID: 1908E25-001DMS | D SampT | уре: М S | SD | Tes | tCode: El | PA 6010B: | Total Recover | rable Meta | als | |
|---------------------------|------------|-----------------|-----------|-------------|-----------|-----------|---------------|------------|----------|------|
| Client ID: MW-32 | Batch | ID: 47 0 | 071 | F | RunNo: 6 | 2682 | | | | |
| Prep Date: 8/26/2019 | Analysis D | ate: 9/ | 5/2019 | S | SeqNo: 2 | 134369 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | 0.49 | 0.020 | 0.5000 | 0 | 98.6 | 75 | 125 | 2.25 | 20 | |

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 47 of 52

Hall Environmental Analysis Laboratory, Inc.

WO#: 1908E25

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: 1908E25-001DMS | 08E25-001DMSD SampType: MSD | | | TestCode: EPA 6010B: Total Recoverable Metals | | | | | | |
|---------------------------|-----------------------------|--------|-----------|---|------|----------|-------------|------|----------|------|
| Client ID: MW-32 | Batch ID: 47071 | | | RunNo: 62682 | | | | | | |
| Prep Date: 8/26/2019 | Analysis Date: 9/5/2019 | | | SeqNo: 2134369 | | | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Barium | 0.48 | 0.020 | 0.5000 | 0.02396 | 91.2 | 75 | 125 | 1.18 | 20 | |
| Cadmium | 0.53 | 0.0020 | 0.5000 | 0 | 106 | 75 | 125 | 2.85 | 20 | |
| Chromium | 0.45 | 0.0060 | 0.5000 | 0 | 91.0 | 75 | 125 | 2.34 | 20 | |
| Lead | 0.44 | 0.0050 | 0.5000 | 0 | 89.0 | 75 | 125 | 3.64 | 20 | |
| Selenium | 0.50 | 0.050 | 0.5000 | 0 | 99.8 | 75 | 125 | 4.30 | 20 | |
| Silver | 0.11 | 0.0050 | 0.1000 | 0.004506 | 105 | 75 | 125 | 2.13 | 20 | |

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: 2.5ug gro Ics SampType: LCS TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSW Batch ID: GW62453 RunNo: 62453

Prep Date: Analysis Date: 8/27/2019 SeqNo: 2126272 Units: mg/L

Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result Gasoline Range Organics (GRO) 0 0.48 0.050 0.5000 95.3 70 130

Surr: BFB 9.9 10.00 99.0 70 130

Sample ID: rb SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBW Batch ID: GW62453 RunNo: 62453

Prep Date: Analysis Date: 8/27/2019 SeqNo: 2126273 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 0.050

Surr: BFB 9.9 10.00 98.5 70 130

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 49 of 52

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

30-Sep-19

Client: Western Refining Southwest, Inc. **Project:** 2019 Annual GW Sampling Event Sample ID: mb-1 alk SampType: mblk TestCode: SM2320B: Alkalinity Client ID: PBW Batch ID: R62429 RunNo: 62429 Prep Date: Analysis Date: 8/26/2019 SeqNo: 2122487 Units: mg/L CaCO3 SPK value SPK Ref Val %REC LowLimit **RPDLimit** Analyte Result PQL HighLimit %RPD Qual Total Alkalinity (as CaCO3) ND 20.00 Sample ID: Ics-1 alk SampType: Ics TestCode: SM2320B: Alkalinity Client ID: LCSW Batch ID: R62429 RunNo: 62429 Prep Date: Analysis Date: 8/26/2019 SeqNo: 2122488 Units: mg/L CaCO3 SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual Total Alkalinity (as CaCO3) 79.32 20.00 80.00 99.2 110 Sample ID: mb-2 alk SampType: mblk TestCode: SM2320B: Alkalinity Client ID: PBW Batch ID: R62429 RunNo: 62429 Prep Date: Analysis Date: 8/26/2019 SeqNo: 2122510 Units: mg/L CaCO3 Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDI imit Qual Analyte Total Alkalinity (as CaCO3) ND 20.00 Sample ID: Ics-2 alk SampType: Ics TestCode: SM2320B: Alkalinity Client ID: LCSW Batch ID: R62429 RunNo: 62429 Prep Date: Analysis Date: 8/26/2019 SeqNo: 2122511 Units: mg/L CaCO3 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Total Alkalinity (as CaCO3) 80.00 79.64 20.00 99.6 90 110 Sample ID: mb-3 alk SampType: mblk TestCode: SM2320B: Alkalinity Client ID: PBW Batch ID: R62429 RunNo: 62429 Prep Date: Analysis Date: 8/26/2019 SeqNo: 2122533 Units: mg/L CaCO3 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Total Alkalinity (as CaCO3) ND 20.00 Sample ID: Ics-3 alk TestCode: SM2320B: Alkalinity SampType: Ics Client ID: LCSW Batch ID: R62429 RunNo: 62429 Prep Date: Analysis Date: 8/26/2019 SeqNo: 2122534 Units: mg/L CaCO3 SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

80.12

20.00

80.00

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

Total Alkalinity (as CaCO3)

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

100

90

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: mb-1 alk SampType: mblk TestCode: SM2320B: Alkalinity

Client ID: PBW Batch ID: R62496 RunNo: 62496

Prep Date: Analysis Date: 8/28/2019 SeqNo: 2126078 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) ND 20.00

Sample ID: Ics-1 alk SampType: Ics TestCode: SM2320B: Alkalinity

Client ID: LCSW Batch ID: R62496 RunNo: 62496

Prep Date: Analysis Date: 8/28/2019 SeqNo: 2126079 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) 78.96 20.00 80.00 0 98.7 90 110

Sample ID: mb-2 alk SampType: mblk TestCode: SM2320B: Alkalinity

Client ID: PBW Batch ID: R62496 RunNo: 62496

Prep Date: Analysis Date: 8/28/2019 SeqNo: 2126101 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) ND 20.00

Sample ID: Ics-2 alk SampType: Ics TestCode: SM2320B: Alkalinity

Client ID: LCSW Batch ID: R62496 RunNo: 62496

Prep Date: Analysis Date: 8/28/2019 SeqNo: 2126102 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) 80.56 20.00 80.00 0 101 90 110

Qualifiers:

* Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 51 of 52

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E25**

30-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: MB-47121 SampType: MBLK TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: PBW Batch ID: 47121 RunNo: 62516

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids ND 20.0

Sample ID: LCS-47121 SampType: LCS TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: LCSW Batch ID: 47121 RunNo: 62516

Prep Date: 8/28/2019 Analysis Date: 8/29/2019 SeqNo: 2126972 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids 1030 20.0 1000 0 103 80 120

Sample ID: 1908E25-001CDUP SampType: DUP TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: MW-32 Batch ID: 47121 RunNo: 62516

Prep Date: 8/28/2019 Analysis Date: 8/29/2019 SeqNo: 2126980 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids 3750 40.0 2.01 10 *D

Qualifiers:

* Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 52 of 52



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

| Client Name: | Western Refining South | Work Order Numb | er: 1908E25 | | RcptNo | : 1 |
|-------------------|--|--|-------------|---|--------------------------------|-------------------|
| Received By: | | 9/92/2010 9:00:00 A | | | | |
| | Daniel M. | 8/23/2019 8:00:00 A | | | | |
| Completed By: | Michelle Garcia | 8/23/2019 3:38:04 P | М | Michelle G | arus | |
| Reviewed By: | DAD 8/23/19 / | A812011 | | | | |
| (| infres. |) 90 10 | | | | |
| Chain of Cus | stody | | | | | |
| 1. Is Chain of C | Custody complete? | | Yes 🗸 | No 🗌 | Not Present | |
| 2. How was the | sample delivered? | | Courier | | | |
| Log In | | | | | | |
| | mpt made to cool the sample | es? | Yes 🗸 | No 🗌 | NA 🗌 | |
| 1 Word all sam | plan ransium at a temperatur | 150 of 20° C to 6.0°C | v | No 🗆 | | |
| 4. Wele all Salli | ples received at a temperat | are or >0°C to 6.0°C | Yes 🗸 | 140 | NA L | |
| 5. Sample(s) in | proper container(s)? | | Yes 🗸 | No 🗌 | | |
| 6. Sufficient san | nple volume for indicated te | st(s)? | Yes 🗸 | No 🗆 | | |
| 7. Are samples | (except VOA and ONG) pro | perly preserved? | Yes 🗸 | No 🗌 | | |
| tion (| ative added to bottles? | | Yes | No 🗸 | NA \square | |
| 9. VOA vials hav | ve zero headspace? | | Yes 🗸 | No 🗌 | No VOA Vials | |
| | mple containers received br | oken? | Yes | No 🗸 | | |
| | | | 08.07.97.3 | | # of preserved bottles checked | 1 |
| 11. Does paperw | ork match bottle labels? | | Yes 🗸 | No 🗌 | for pH: | 8 |
| | ancies on chain of custody) | | | | (<2) | >12 unless noted) |
| | correctly identified on Chain | | Yes 🗸 | No 🗌 | Adjusted? | 110 |
| | t analyses were requested? | | Yes 🗸 | No 🗀 | | had color |
| | ng times able to be met? ustomer for authorization.) | | Yes 🗸 | No 🗆 | Checked by: | 11/0/10/3/11/c |
| | | | | | | |
| Special Handi | ling (if applicable) | | | | | |
| 15. Was client no | otified of all discrepancies w | th this order? | Yes | No 🗌 | NA 🗹 | _ |
| Person | Notified: | Date: | | | | |
| By Who | • | Via: | eMail | Phone Fax | ☐ In Person | |
| Regard | | | | | | |
| Client I | nstructions: | AT THE STANDARD WAS AND A STANDARD A | | *************************************** | | |
| 16. Additional re | marks: | | | | | _ |
| 17. Cooler Infor | rmation | | | | | |
| Cooler No | | Seal Intact Seal No | Seal Date | Signed By | | |
| 1 | | Yes | | 5 | | |
| 2 | 1.1 Good | Yes | | | | |

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|----|-------------------------|---|---------------------------|-----------------------------|----------------------|------------------|------------------------------------|-----------------------------------|----------------------------|-------------|------------------------|-------------------------|------------------|-------------------|---------------------|---------------------|--------------------------------|---------------------|--|---|----------|--------------|------------------------|------------------|---------|--|
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| | | 2 0 | www.hallenvironmental.com | Albuquerque, NM 87109 | Fa | Analysis Request | | (_b OS, _b C | | | | Anions (F,Cl, | | | | | | | | | | | See Analytical Methods | | | |
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| | - | ANAL | W. | 4901 Hawkins NE | Tel. 505-345-3975 | | | (5) | | | | EDB (Metho | | | | | | | | | | _ | alyı | | | |
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| | | | | | | | tney | | 1-7055 | , | 14436 | 8 M | 100 | | | | | | | | | Time | 1546 | Time | 8:00 | |
| | | | I GW | vent | | | AcCar | | Tracy Payne - 919-561-7055 | 9 | -100cl | HEAL NO. |) 1 | | | | | _ | | | | Date | 8/22/15 | Date | 123/17 | |
| | | اے | nua | Jg E | | | L S | | ne - | 8 0 | 1 | | | | | | | | | | | | Co | | Do | |
| | äi | □ Rush | 2019 Annual GW | Sampling Event | | | Grego | | cv Pav | es | ure: 23 | Preservative Type | HCI | Neat | HNO3 | HNO3 | H ₂ SO ₄ | Neat | | | | | Part | 2 | antiel | |
| | Time: | | | Ö | | | ger: | | Tra | □ Yes | perat | Pre | | ~ | Н | I | I | _ | | | | | 2 | | Con Con | |
| | Turn-Around | X Standard | Project Name: | | Project #: | | Project Manager: Gregory McCartney | | Sampler: | On Ice: | Sample Temperature: 23 | Container Type and # | 40ml VOA-5 | 250 ml amber-1 | 250 ml plastic-1 | 125 ml plastic-1 | 125 ml plastic-1 | 500 ml plastic-1 | | | | Received hv. | Me + | Received by: | 1 | |
| L | _ | × | Pr | Г | P | | ď | | | ŏ | S | 0 t | 40 | | <u> </u> | | 0. | 0 | | | | A A | | \$ (| | |
| | Chain-of-Custody Record | Western - Bloomfield Terminal | | 00 | Bloomfield, NM 87413 | 38 | gjmccartney@marathonpetroleum.com | X Level 4 (Full Validation) | | | | Sample Request ID | MW-32 | MW-32 | MW-32 | MW-32 | MW-32 | MW-32 | | | | | 1 | 0 | e Wales | |
| | stc | omi | | 498 | ield | 1-23 | ratho | X Le | | | - | Š | | | = = | | | | | | | A d | 1 | j py: | other | |
| | of-Cu | rn - Blo | | 50 CR | Bloomf | 419-421-2338 | ney@mai | | | EXCEL | | Matrix | H ₂ 0 | H ₂ 0 | H ₂ O | H ₂ O | H ₂ O | H ₂ 0 | | | | Relinguished | X | Religquished by: | JAMES / | |
| | hain- | Weste | | Mailing Address: 50 CR 4990 | | :# | | QA/QC Package: | Į. | EDD (Type)_ | | Time | 0720 | 100 | | _ | | → | | | | Time. | 4 | 7 | 1.08 | |
| | O | Client: | | Mailing | | Phone #: | Email: | QA/QC | □ Other | X EDD | | Date | 8/24/9 | | | | | > | | | | Date: | 8/11/8 | Date: | 51/271 | |

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| 1 | 2 | C | | Albuquerque, NM 87109 | 07 | | | | | | | Dissolved I | | | | × | 7 | 7.80 | | | | | arg | | |
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| | | | www.hallenvironmental.com | | 10 | Ana | | | | | | RCRA 8 Me | | | × | | | | | | | | Analytical Methods | | |
| | 3 | | W | 4901 Hawkins NE | 505-345-3975 | | | (5) | | | | EDB (Metho | | | | | | | | | | | la Z | | |
| |] | • | > | wkin | -345 | | | | | | | TPH (Metho | | | | | | | | | | | Z O | | |
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| | | | | | | | | | | | | BTM+X3T8 | | | | | | | | | | - | Kemarks: | | |
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| | | | | | | | ey | | 919-561-7055 | | 3:20 | 16. 25 | 7 | | | | | | | | | Time | JAS. | Time Q. C. | |
| | | - | _ | | | | artu | | 561- | 1 | 3-6 | , HEAL NO. 08E29 | 002 | | | | | | | | | į | 5 | | |
| | | | S | /ent | | | ပ္ပိ | | 919- | 0 | 1/3/ | , HEAL NO. 1908E25 |) | | | | | | | | _ | Oate | 2/13 | Date | 7 |
| | | | nual | gĒ | | | 2 | | 1 | 10000 | 0.50 | 0 | | | | | 5 | | | | | | 8/24 | Re | - |
| | | Rush | 2019 Annual GW | Sampling Event | | | gol | | Pavne | | 19 | ative | | t | 3 | 3 |)4 | t | | | | | -3 | | |
| | <u>.</u> | | 019 | am | | | G | | Tracy F | Yes | ture: | Preservative Type | НСІ | Neat | HNO ₃ | HNO3 | H ₂ SO ₄ | Neat | | | | | Walk | - 4 | 7 |
| | Time: | 73 | | Ŋ | | | ager: | | T | P | pera | Pre | | Vi serio | _ | _ | | | | | | | 3 | , 2000 | 3 |
| | Turn-Around | X Standard | Project Name: | | # | | Project Manager: Gregory McCartney | | ت | | Sample Temperature:, | iner nd # | 40ml VOA-5 | Ξ <u>Ξ</u> | ո c-1 | nl c-1 | lu C-1 | ات 1- | | | | ۼ | 5 | 1 | |
| | rn-Ar | Star | ject | | Project #: | | ject | | Sampler: | On Ice: | mple | Container Type and # | N V | 250 ml amber-1 | 250 ml plastic-1 | 125 ml plastic-1 | 125 ml plastic-1 | 500 ml plastic-1 | _ | | | Received by: | J. Mar | Received by: | 1 |
| | | × | Pro | _ | Pro | | Pro | | Sar | ő | Sar | Q 5 | 401 | , . a | ,, σ | , σ | , σ | ٠ ۵ | | | | Reck | <, | Sec > | - |
| | | | | | | | | ion) | • | | | □ | | | | | | | | | | | | | |
| | ord | nal | | | ~ | | om | alidat | | | | iest | | | | 121 | 9 | | | | | | | Į, | { |
| | ec | rmi | | | 741; | | um.c | e/ IIr | | | | Sedi | MW-27 | MW-27 | MW-27 | MW-27 | MW-27 | MW-27 | | | | | | ~ | \int |
| | R | l Te | | | W 8 | | trole | X Level 4 (Full Validation) | | | | Sample Request ID | Ž | M | M | M | Z | M | | | | | ١ | 9 | } |
| | d | fielc | | 90 | Z, | 38 | onpe | evel | | | | amb | | | | | | | | | | | | (} | |
| | stc | om | | 49 | fielc | 1-23 | rathc | × | | | | ιχ | | | | _ | | | | | | A | N r | o py: | 2 |
| | Ç | Blo | | 50 CR 4990 | Bloomfield, NM 87413 | 419-421-2338 | @ma | | | EXCEL | | trix | O. | H ₂ 0 | 0 | 0 | 0 | 0 | | | | edsiii | X | elinquished by: | 3 |
| | -O | ב. | | | Blo | 419 | tney | | | E | | Matrix | H ₂ O | Ŧ | H ₂ O | H ₂ 0 | H ₂ 0 | H ₂ O | | | | Relinquished by | V ' | Refinquished by: | |
| | Chain-of-Custody Record | Western - Bloomfield Terminal | | Mailing Address: | | | Email: gjmccartney@marathonpetroleum.com | QA/QC Package: | | X EDD (Type) | | Time | 0800 | | | | | -> | | _ | | Time. | 6 | | , |
| | 당 | | | ng A | |)e #: | il: g | VQC Packa Standard | Other | ו) סכ | - | | 0 | | | | | | | | | jÈ | 19 | ± - | + |
| | | Client: | | Maili | | Phone #: | Ema | QAVQ | Ö | ×E | | Date | 8/22/19 | | | | | \rightarrow | | | | Jate: | 8/12/ | Date: \$\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | |
| | | | 10 | | | | | | | 250 | - 1 | - ! | JU I | | | | | - I | 95 | | I | J. | ເກ | 00 | L |

Air Bubbles (Y or N) Remarks: See Analytical Methods and Target Analytes. **ANALYSIS LABORATORY** HALL ENVIRONMENTAL 3 9 General Chem. - Alkalinity × General Chem. - Anions&CO₂ × × 4901 Hawkins NE - Albuquerque, NM 87109 Dissolved Metals × Fax 505-345-4107 (AOV-ima2) 0728 × www.hallenvironmental.com **Analysis Request** (AOV) 808S8 × 8081 Pesticides / 8082 PCB's Anions (F,CI,NO3,NO2,PO4,SO4) RCRA 8 Metals Total × Tel. 505-345-3975 (2MI20728 to 0188) HA9 EDB (Method 504.1) (1.814 bodteM) H9T ТРН 8015В (GRO/DRO/MRO) × × BTEX+MTBE+TPH(Gas only) BTEX+MTBE+TMB's(8021) x.65 1908E25 6hS/ Tracy Payne - 919-561-7055 Sample Temperature:{4-0,3 7.12.12.54.3-2.0. -003 Time Time 400-Project Manager: Gregory McCartney HEAL No. Surfe Project Name: 2019 Annual GW Sampling Event \$23/19 Date Date 200 □ Rush Preservative H_2SO_4 HNO HNO Neat Neat Neat Type 당 모 **WYes** Turn-Around Time: 40m-VOR-B X Standard 40ml VOA-5 Type and # Container Mar plastic-1 amber-1 plastic-1 125 ml plastic-1 plastic-1 amber-1 250 ml 250 ml 125 ml Received by: 1 liter 500 ml Project #: eceived by Sampler: On Ice: X Level 4 (Full Validation) Sample Request ID Mosts Weeles Chain-of-Custody Record BLANK Client: Western - Bloomfield Terminal Email: gjmccartney@marathonpetroleum.com Bloomfield, NM 87413 MW-38 MW-38 MW-38 MW-38 MW-38 MW-38 MW-38 TRIP 419-421-2338 Mailing Address: 50 CR 4990 Relipedished by: Relinquished by EXCEL Matrix HZO H₂0 H₂0 H_2O H₂0 H₂0 H₂0 H_2^0 8/22/19/0845 8/2/9/549 QA/QC Package: Time X EDD (Type) 1000 Time: □ Standard 1 □ Other Phone #: 8/24/9 8/22/19 Date Date:

4 OF 6

| | Chain-of-Custody Record | Client: Western - Bloomfield Terminal | | Mailing Address: 50 CR 4990 | Bloomfield, NM 87413 | 419-421-2338 | Email: gjmccartney@marathonpetroleum.com | | X Level 4 (Full Validation) | | EXCEL | | Matrix Sample Request ID | | MW-37 4 | MW-37 | MW-37 | MW-37 | MW-37 | MW-37 | | Relinquished by: | (| Relinquished by: | Bases to | |
|---|-------------------------|---------------------------------------|------------------------------|-----------------------------|----------------------|------------------|--|-------------------|-----------------------------|----------------------------|-----------------|--------------------------|--|---------|----------------|-------------|-------------------------|-------------------------|---|-------------|----|---------------------|----------|------------------|-------------|--|
| | Turn-Around Time: | X Standard | Project Name: 2019 Annual GW | Sampling Event | Project #: | | Project Manager: Gregory McCartney | | | Sampler: Tracy Payne | On Ice: 🔞 Yes 🗆 | Sample Temperature: 1403 | Container Preservative Type and # Type | | 40ml VOA-5 HCI | 250 ml Neat | 250 ml HNO ₃ | 125 ml HNO ₃ | 125 ml H ₂ SO ₄ | 500 ml Neat | | Received by: | Charles | Received by: | S Contier ? | |
| | 12 | | al GW | Event | | | McCartney | | | Tracy Payne - 919-561-7055 | / ÓN 🗆 | 42/23320° | HEAL No. | CE30017 | -065 | | | | | | | Date Time | Sh51 61 | | 230 8:00 | |
| | | | | 490 | Te | | (| | | | | - | 8TM+X3T 8TM+X3T | _ | | | | | | | | Pemarks: | 2 | | | |
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| | | ANALYSIS LABORATORY | www | 4901 Hawkins NE | Tel. 505-345-3975 | | | | | (1 | † 09 | g po | odteM) 80 | 3 | | - 1 | | | | | | Arah | 5 | | | |
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| | ENVIDONMENTAL | SIS | www.hallenvironmental.com | Albuquerque, NM 87109 | Fax 5 | Analysis Request | | | | | | | IO,4) enoin | | | | | | | | | Analytical Mathods | | | | |
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| 1 | 2 | BO | com | NM 87 | Fax 505-345-4107 | st | | | | | (A | | imə8) 072 | _ | | | | | | | | and Tarret Analytes | <u>:</u> | | | |
| P | L | RA | | 109 | _ | | - | OO8 | su | _ | _ | | i bəvlossi AD İstənə | _ | | | | × | × | | ++ | | 5 | | | |
| 9 | ¥ F | | | | | | | | | | | | eneral Ch | | | | | | | × | | Anal | 3 | | | |
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| | YSIS LABORATORY | | 60 | | | 2 | | ılkal | 1A A | шə шə | Dissolved I General Ch General Ch Air Bubbles | | | | × | × | × | | Target Analytes | 300 | | |
|-------------------------|---------------------------------------|---------------------------|-----------------------|----------------------|------------------|--|-----------------------------------|--------------------|------------|-----------------|--|------------------|-------------------|---------------------|---------------------|--------------------------------|---------------------|--|--------------------|--|--------------------------|-----|
| | | E | Albuquerque, NM 87109 | Fax 505-345-4107 | | | | | _ | | -imə2) 0728 | | | | | | | | _ L | | | |
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| | 1 × | lenv | Alb | | Analysis Request | | | otal | T s | tals | RCRA 8 Me | - | | × | | | | | 7 | 5 | | |
| | ANALYSIS | www.hallenvironmental.com | 빌 | 975 | ۷ | | (SI | NIS | 270 | 8 1c | 01E8) HAG | | | | | | | | Analytical Methods | | | |
| 5 | Z | * | ins | 45-3 | | | | () | .40 | g p | EDB (Metho | | | | | | | | Ana | | | |
| • | - 1 | | 4901 Hawkins NE | Tel. 505-345-3975 | | | | | | | odtəM) HqT | | | | | - | | | Spo | 3 | | - |
| | | disease. | 301 F | el. 5 | | _ | | | | | BB108 H9T | × | × | | | | | | | | | |
| | | | 4 | _ | | | (λluo si | 6Đ) | ТРР | <u>+3</u> | 8TM+X3T8 | | | | | | | | Remarks: | 3 | | |
| | | | | | | | (1208 | 8)s'8 | LME | | BTM+X3T8 | | | | | | | | ď | <u>}</u> | , | |
| | 138 | ual GW | y Event | | | Project Manager: Gregory McCartney | | e - 919-561-7055 | 888 | 3-11-123-03-202 | HEAL NO. | 900- | | | | =- =- 32 | | | Date Time | 8/22/19 1548 | | , , |
| Time: | □ Rush_ | 3: 2019 Annual GW | Sampling Event | | | ger: Gregor | | Tracy Payne | D/Yes | 140 | Preservative Type | IDH | Neat | ^E ONH | HNO3 | H ₂ SO ₄ | Neat | | | Jaron | Contin | |
| Turn-Around | X Standard | Project Name: | | Project #: | | Project Mana | | Sampler: | On Ice: | Sample Tem | Container Type and # | 40ml VOA-5 | 250 ml amber-1 | 250 ml plastic-1 | 125 ml plastic-1 | 125 ml plastic-1 | 500 ml plastic-1 | | Received by: | 1 | Received by: | |
| Chain-of-Custody Record | Client: Western - Bloomfield Terminal | | 50 CR 4990 | Bloomfield, NM 87413 | 419-421-2338 | Email: gjmccartney@marathonpetroleum.com | X Level 4 (Full Validation) | | | | Sample Request ID | WW-35 | WW-35 | MW-35 | WW-35 | 35-WM | MW-35 | | zi pa'. | 1 | ined by: West In Caller | |
| -of-Cu | rn - Blo | | | Bloom | 419-42 | tney@ma | | | EXCEL | | Matrix | H ₂ 0 | H ₂ O | H ₂ O | H ₂ O | H ₂ O | H ₂ O | | Relinquished by: | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | Relinquished by: | |
| hain | Weste | | Mailing Address: | | #: | gjmccar | QA/QC Package: | ū | EDD (Type) | | Time | 0440 | | | | | → | | Time: | | Time: | |
| J | Client: | | Mailing | | Phone #: | Email: | QA/QC Packa | □ Other | X EDC | | Date | 8/24/9 | | | | | \rightarrow | | Date: | 8/22/9 | S/22/3 | |

Lab did not recieve 2nd Trip Blank unishe Air Bubbles (Y or N) Remarks: See Analytical Methods and Target Analytes. **ANALYSIS LABORATORY** HALL ENVIRONMENTAL 6 0 6 General Chem. - Alkalinity × $_{
m 2}$ Oეlphaenoinm A-.mədm 7 Lishənəm 6× × 4901 Hawkins NE - Albuquerque, NM 87109 × Fax 505-345-4107 (AOV-ima2) 07S8 × www.hallenvironmental.com **Analysis Request** (AOV) 808S8 × 8081 Pesticides / 8082 PCB's Anions (F,CI,NO3,NO2,PO4,SO4) RCRA 8 Metals Total × Tel. 505-345-3975 (2MI20728 10 0188) HA9 EDB (Method 504.1) TPH (Method 418.1) **TPH 8015B (GRO/DRO/MRO)** × × BTEX+MTBE+TPH(Gas only) BTEX+MTBE+TMB's(8021) 8/23/19 8:00 19.08E25 8/22/14 1549 Tracy Payne - 919-561-7055 01/9/C/80 L00-Time Project Manager: Gregory McCartney HEAL No. Project Name: 2019 Annual GW Sampling Event Date Date 2 Sample Temperature: 14.0.5-1/ Courted □ Rush Preservative HNO3 HNO3 H_2SO_4 Neat Neat Neat Type 당 HOME WOAS HE □ Yes Jag Turn-Around Time: X Standard 40ml VOA-5 Type and # Container 7 plastic-1 plastic-1 amber-1 plastic-1 plastic-1 amber-1 Received by: 250 ml 1 liter 250 ml 125 ml 125 ml 500 ml Received by Project #: Sampler: On Ice: X Level 4 (Full Validation) Sample Request ID Chain-of-Custody Record BLANK Email: gjmccartney@marathonpetroleum.com Client: Western - Bloomfield Terminal Bloomfield, NM 87413 **MW-12** MW-12 **MW-12** MW-12 MW-12 MW-12 MW-12 122/2 IRIP 419-421-2338 50 CR 4990 Martas Relinguished by: Relinquished by EXCEL Matrix H₂0 H₂0 H₂0 H₂0 H₂0 H_2O H_2^0 420 Mailing Address: 8/21/19/1005 QA/QC Package: EDD (Type) Time 8/22/19/867 1549 Time: □ Standard Time: Phone #: □ Other 61/22/ 8/21/19 Date Date: Date:

TABLE 2

Analytical Methods and Target Analytes Facility-Wide Groundwater Monitoring Plan - June 2014 Western Refining Southwest, Inc. - Bloomfield Terminal

| | s (EPA Method 8260B) (1) get List |
|-------|--|
| | Benzene |
| | Toluene |
| | Ethylbenzene |
| | Xylenes |
| | Methyl tert butyl ether (MTBE) |
| | Cs - (EPA Method 8270) |
| | - Method List |
| | GRO (EPA Method 8015B) |
| | - Gasoline Range Organics |
| | DRO (EPA Method 8015B) |
| | - Diesel Range Organics |
| | - Motor Oil Range Organics |
| Total | Carbon Dioxide (Laboratory Calculated) |
| | - Dissolved CO2 |
| Speci | fic Conductivity (EPA Method 120.1 or field measurement) |
| | - Specific conductance |
| | (EPA Method 160.1 or field measurement) |
| | - Total dissolved solids |
| | ral Chemistry - Anions (EPA Method 300.0) |
| | Fluoride |
| | Chloride |
| | Bromide |
| | Nitrogen, Nitrite (as N) |
| | Nitrogen, Nitrate (as N) |
| | Phosphorous, Orthophosphate (As P) |
| | Sulfate |
| Genei | ral Chemistry - Alkalinity (EPA Method 310.1) |
| | Alkalinity, Total |
| (| Carbonate |
| i | Bicarbonate |

| Total Recoverable Metals (El | PA Method 6010B/7470) |
|---|--------------------------------|
| - Target List (not applicable to | River Terrace Sampling Events) |
| Arsenic | Lead |
| Barium | Mercury |
| Cadmium | Selenium |
| Chromium | Silver |
| - Target List (for River Terrace | Sampling Events Only) |
| Lead | |
| Mercury (DW-1 ON | ILY) |
| | |
| Dissolved Metals (EPA Metho | od 6010B / 7470) |
| Target List (for Refinery Con | nplex, Outfalls, and River) |
| Arsenic | Manganese |
| Barium | Mercury |
| Cadmium | Potassium |
| Calcium | Selenium |
| Chromium | Silver |
| Copper | Sodium |
| | 77 . |
| Iron | Uranium |
| Iron Lead | Zinc |

TPH = total petroleum hydrocarbons GRO = gasoline range organics VOCs = volatile organic compounds DRO = diesel range organics TDS = total dissolved solids

NOTES:

- (1) VOCs Target List for River Terrace samples are analyzed by EPA Method 8021B per NMED's letter Approval with Direction dated June 16, 2009.
- (2) Target List for San Juan River Terrace Monitoring Wells and Piezomenter Wells only, per the River Terrace Bioventing System Monitoring Plan.

TABLE 2

Analytical Methods and Target Analytes Facility-Wide Groundwater Monitoring Plan - June 2014 Western Refining Southwest, Inc. - Bloomfield Terminal

| | Cs (EPA Method 8260B) (1) get List |
|------|---|
| | Benzene |
| | Toluene |
| | Ethylbenzene |
| | Xylenes |
| | Methyl tert butyl ether (MTBE) |
| svo | Cs - (EPA Method 8270) |
| | - Method List |
| TPH | -GRO (EPA Method 8015B) |
| | - Gasoline Range Organics |
| TPH | -DRO (EPA Method 8015B) |
| | - Diesel Range Organics |
| | - Motor Oil Range Organics |
| Tota | Carbon Dioxide (Laboratory Calculated) |
| | - Dissolved CO2 |
| Spec | ific Conductivity (EPA Method 120.1 or field measurement) |
| | - Specific conductance |
| TDS | (EPA Method 160.1 or field measurement) |
| | - Total dissolved solids |
| Gene | ral Chemistry - Anions (EPA Method 300.0) |
| | Fluoride |
| | Chloride |
| | Bromide |
| | Nitrogen, Nitrite (as N) |
| | Nitrogen, Nitrate (as N) |
| | Phosphorous, Orthophosphate (As P) |
| | Sulfate |
| | ral Chemistry - Alkalinity (EPA Method 310.1) |
| | Alkalinity, Total |
| | Carbonate |
| | Bicarbonate |

| - Target List | (not applicable to | River Terrace Sampling Events) |
|---|--|---|
| Ai | rsenic | Lead |
| Be | arium | Mercury |
| C_{i} | admium | Selenium |
| C | hromium | Silver |
| - Target List | (for River Terrace | Sampling Events Only) |
| | ead | |
| M | fercury (DW-1 ON | (LY) |
| | | |
| | | |
| Dissolved Mo | etals (EPA Metho | d 6010B / 7470) |
| | | d 6010B / 7470) pplex, Outfalls, and River) |
| - Target List | | |
| - Target List <i>Ai</i> | (for Refinery Com | pplex, Outfalls, and River) |
| - Target List Ar Ba | (for Refinery Com | plex, Outfalls, and River) Manganese |
| - Target List Ai Ba Ca | (for Refinery Com rsenic arium | plex, Outfalls, and River) Manganese Mercury |
| - Target List Ai Ba Ca Ca | (for Refinery Com rsenic arium admium | plex, Outfalls, and River) Manganese Mercury Potassium |
| - Target List An Bo Co Co Co | (for Refinery Com rsenic arium admium alcium | plex, Outfalls, and River) Manganese Mercury Potassium Selenium |
| - Target List An Bo Co Co Co Co Co | (for Refinery Com rsenic arium admium alcium hromium | plex, Outfalls, and River) Manganese Mercury Potassium Selenium Silver |
| - Target List An Ba Ca Ca Ca Ca Ca Ca Ca Ira | (for Refinery Com rsenic arium admium alcium hromium opper | plex, Outfalls, and River) Manganese Mercury Potassium Selenium Silver Sodium |

TPH = total petroleum hydrocarbons GRO = gasoline range organics VOCs = volatile organic compounds DRO = diesel range organics TDS = total dissolved solids

NOTES:

- (1) VOCs Target List for River Terrace samples are analyzed by EPA Method 8021B per NMED's letter Approval with Direction dated June 16, 2009.
- (2) Target List for San Juan River Terrace Monitoring Wells and Piezomenter Wells only, per the River Terrace Bioventing System Monitoring Plan.



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

October 01, 2019

Gregory J. McCartney Western Refining Southwest, Inc. #50 CR 4990 Bloomfield, NM 87413

TEL: (505) 632-4135 FAX (505) 632-3911

RE: 2019 Annual GW Sampling Event OrderNo.: 1908E78

Dear Gregory J. McCartney:

Hall Environmental Analysis Laboratory received 17 sample(s) on 8/24/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Case Narrative
WO#: 1908E78

Date: 10/1/2019

CLIENT: Western Refining Southwest, Inc.Project: 2019 Annual GW Sampling Event

Analytical Notes Regarding EPA Method 8270:

The method blank had poor surrogate recoveries. The blank and all samples were reextracted to confirm the initial data.

Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-59

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 2:40:00 PM

 Lab ID:
 1908E78-001
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

Result DF **Date Analyzed Batch ID Analyses MDL** RL **Qual Units EPA METHOD 8015D: DIESEL RANGE** Analyst: JME Diesel Range Organics (DRO) 0.31 0.13 0.40 mg/L 1 8/29/2019 1:58:59 AM 47076 ND 2.5 Motor Oil Range Organics (MRO) 2.5 mg/L 1 8/29/2019 1:58:59 AM 47076 Surr: DNOP 132 0 52.7-168 %Rec 1 8/29/2019 1:58:59 AM 47076 **EPA METHOD 300.0: ANIONS** Analyst: CJS Fluoride ND 0.073 0.50 5 9/9/2019 10:11:53 AM mg/L R62781 Chloride 240 5.0 10 20 9/9/2019 10:24:14 AM R62781 mg/L 0.25 Bromide 3.6 0.50 mg/L 5 9/9/2019 10:11:53 AM R62781 Phosphorus, Orthophosphate (As P) ND 2.5 5 9/9/2019 10:11:53 AM R62781 1.2 Н mg/L 390 5.0 20 9/9/2019 10:24:14 AM R62781 Sulfate 10 mg/L Nitrate+Nitrite as N 0.048 9/9/2019 5:36:18 PM 0.32 1.0 J mg/L 5 R62781 **EPA METHOD 7470: MERCURY** Analyst: rde 0.00013 0.000038 0.00020 9/12/2019 3:42:20 PM 47428 Mercury J mg/L 1 **EPA METHOD 6010B: DISSOLVED METALS** Analyst: bcv Arsenic 0.027 0.019 0.020 mg/L 1 9/9/2019 10:05:52 AM A62764 0.073 Barium 0.00056 0.020 mg/L 1 9/9/2019 10:05:52 AM A62764 Cadmium 0.00058 ND 0.0020 mg/L 1 9/9/2019 10:05:52 AM A62764 Calcium 200 mg/L 10 9/18/2019 12:08:48 PM A63017 0.60 10 Chromium ND 0.0012 0.0060 mg/L 1 9/9/2019 10:05:52 AM A62764 ND 0.0023 0.0060 9/9/2019 10:05:52 AM Copper mg/L 1 A62764 Iron 7.6 0.054 0.20 mg/L 10 9/18/2019 12:08:48 PM A63017 Lead ND 0.0048 0.0050 mg/L 1 9/20/2019 9:21:26 AM A63074 mg/L 62 0.061 1 9/9/2019 10:05:52 AM A62764 Magnesium 1.0 Manganese 1.5 0.0013 0.010 mg/L 5 9/9/2019 10:07:34 AM A62764 Potassium 3.3 0.11 mg/L 1 9/9/2019 10:05:52 AM A62764 1.0 Selenium ND 0.041 0.050 mg/L 1 9/9/2019 10:05:52 AM A62764 Silver 0.0020 0.0013 0.0050 9/9/2019 10:05:52 AM A62764 J mg/L 1 Sodium 9/18/2019 12:08:48 PM A63017 480 2.4 10 mg/L 10 Uranium ND 0.062 0.10 mg/L 1 9/9/2019 10:05:52 AM A62764 0.025 0.0026 0.020 mg/L 1 9/9/2019 10:05:52 AM A62764 **EPA 6010B: TOTAL RECOVERABLE METALS** Analyst: bcv ND 0.015 0.020 9/9/2019 8:16:04 AM 47071 Arsenic mg/L 1 Barium 0.11 0.0012 0.020 mg/L 1 9/5/2019 2:34:09 PM 47071 Cadmium ND 0.00055 0.0020 mg/L 1 9/5/2019 2:34:09 PM 47071 Chromium ND 0.00086 0.0060 mg/L 1 9/5/2019 2:34:09 PM 47071 1 Lead ND 0.0035 0.0050 mg/L 9/5/2019 2:34:09 PM 47071 Selenium ND 0.035 0.050 mg/L 1 9/9/2019 8:16:04 AM 47071 Silver 0.0018 0.00055 0.0050 J mg/L 9/5/2019 2:34:09 PM 47071

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Oualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 90

Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-59

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 2:40:00 PM

 Lab ID:
 1908E78-001
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

Result **MDL Qual Units** DF **Date Analyzed Batch ID Analyses** RL**EPA METHOD 8270C: SEMIVOLATILES** Analyst: **DAM** Acenaphthene ND 3.0 10 9/5/2019 9:10:22 PM 47113 µg/L 1 Acenaphthylene ND 2.4 10 μg/L 1 9/5/2019 9:10:22 PM 47113 Aniline ND 3.6 10 μg/L 9/5/2019 9:10:22 PM 47113 1 Anthracene ND 2.7 10 μg/L 9/5/2019 9:10:22 PM 47113 1 ND 3.3 Azobenzene 10 µg/L 1 9/5/2019 9:10:22 PM 47113 Benz(a)anthracene ND 3.6 10 µg/L 1 9/5/2019 9:10:22 PM 47113 ND 3.5 10 1 9/5/2019 9:10:22 PM 47113 Benzo(a)pyrene µg/L Benzo(b)fluoranthene ND 3.4 10 μg/L 1 9/5/2019 9:10:22 PM 47113 2.2 1 Benzo(g,h,i)perylene ND 10 µg/L 9/5/2019 9:10:22 PM 47113 Benzo(k)fluoranthene ND 2.9 10 μg/L 1 9/5/2019 9:10:22 PM 47113 Benzoic acid ND 11 20 µg/L 1 9/5/2019 9:10:22 PM 47113 Benzyl alcohol ND 2.4 10 µg/L 1 9/5/2019 9:10:22 PM 47113 Bis(2-chloroethoxy)methane ND 2.6 10 µg/L 1 9/5/2019 9:10:22 PM 47113 Bis(2-chloroethyl)ether ND 3.2 10 μg/L 1 9/5/2019 9:10:22 PM 47113 Bis(2-chloroisopropyl)ether ND 3.9 10 1 9/5/2019 9:10:22 PM 47113 µg/L ND 4.3 10 1 47113 Bis(2-ethylhexyl)phthalate µg/L 9/5/2019 9:10:22 PM 4-Bromophenyl phenyl ether ND 3.0 10 µg/L 1 9/5/2019 9:10:22 PM 47113 Butyl benzyl phthalate ND 3.3 10 µg/L 1 9/5/2019 9:10:22 PM 47113 ND 2.9 10 µg/L 1 9/5/2019 9:10:22 PM 47113 Carbazole 4-Chloro-3-methylphenol ND 3.4 10 µg/L 1 9/5/2019 9:10:22 PM 47113 ND 2.3 4-Chloroaniline 10 μg/L 1 9/5/2019 9:10:22 PM 47113 2-Chloronaphthalene ND 3.1 10 µg/L 1 9/5/2019 9:10:22 PM 47113 ND 2.7 2-Chlorophenol 10 1 47113 µg/L 9/5/2019 9:10:22 PM 4-Chlorophenyl phenyl ether ND 2.4 10 47113 µg/L 1 9/5/2019 9:10:22 PM ND 2.8 Chrysene 10 µg/L 1 9/5/2019 9:10:22 PM 47113 Di-n-butyl phthalate ND 2.7 10 µg/L 1 9/5/2019 9:10:22 PM 47113 Di-n-octyl phthalate ND 3.5 μg/L 1 9/5/2019 9:10:22 PM 10 47113 Dibenz(a,h)anthracene ND 3.0 10 µg/L 1 9/5/2019 9:10:22 PM 47113 ND 3.2 1 Dibenzofuran 10 µg/L 9/5/2019 9:10:22 PM 47113 ND 4.8 10 µg/L 1 9/5/2019 9:10:22 PM 47113 1.2-Dichlorobenzene 1,3-Dichlorobenzene ND 5.3 10 µg/L 1 9/5/2019 9:10:22 PM 47113 1,4-Dichlorobenzene ND 4.4 10 μg/L 1 9/5/2019 9:10:22 PM 47113 3,3´-Dichlorobenzidine ND 2.8 10 µg/L 1 9/5/2019 9:10:22 PM 47113 ND Diethyl phthalate 2.9 10 μg/L 1 9/5/2019 9:10:22 PM 47113 Dimethyl phthalate ND 10 1 3.2 µg/L 9/5/2019 9:10:22 PM 47113 2,4-Dichlorophenol ND 2.9 20 µg/L 1 9/5/2019 9:10:22 PM 47113 2,4-Dimethylphenol 1 ND 3.0 10 µg/L 9/5/2019 9:10:22 PM 47113 4,6-Dinitro-2-methylphenol ND 2.9 20 μg/L 1 9/5/2019 9:10:22 PM 47113 2,4-Dinitrophenol ND 2.6 20 µg/L 9/5/2019 9:10:22 PM 47113

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 3 of 90

Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-59

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 2:40:00 PM

 Lab ID: 1908E78-001
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|---------------------------------|--------|-----|----------|------|-------|----|---------------------|----------|
| EPA METHOD 8270C: SEMIVOLATILES | | | | | | | Analyst: DA | М |
| 2,4-Dinitrotoluene | ND | 3.8 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| 2,6-Dinitrotoluene | ND | 2.4 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Fluoranthene | ND | 2.4 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Fluorene | ND | 2.9 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Hexachlorobenzene | ND | 3.1 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Hexachlorobutadiene | ND | 4.7 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Hexachlorocyclopentadiene | ND | 3.6 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Hexachloroethane | ND | 4.8 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Indeno(1,2,3-cd)pyrene | ND | 2.7 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Isophorone | ND | 3.0 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| 1-Methylnaphthalene | ND | 3.1 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| 2-Methylnaphthalene | ND | 3.0 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| 2-Methylphenol | ND | 2.9 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| 3+4-Methylphenol | ND | 3.6 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| N-Nitrosodi-n-propylamine | ND | 6.5 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| N-Nitrosodimethylamine | ND | 5.0 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| N-Nitrosodiphenylamine | ND | 2.4 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Naphthalene | ND | 4.1 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| 2-Nitroaniline | ND | 3.2 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| 3-Nitroaniline | ND | 3.2 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| 4-Nitroaniline | ND | 2.7 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Nitrobenzene | ND | 2.8 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| 2-Nitrophenol | ND | 3.0 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| 4-Nitrophenol | ND | 7.6 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Pentachlorophenol | ND | 2.7 | 20 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Phenanthrene | ND | 2.8 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Phenol | ND | 8.0 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Pyrene | ND | 2.5 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Pyridine | ND | 9.6 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| 1,2,4-Trichlorobenzene | ND | 4.0 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| 2,4,5-Trichlorophenol | ND | 3.0 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| 2,4,6-Trichlorophenol | ND | 2.3 | 10 | | μg/L | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Surr: 2-Fluorophenol | 54.6 | 0 | 15-101 | | %Rec | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Surr: Phenol-d5 | 37.7 | 0 | 15-84.6 | | %Rec | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Surr: 2,4,6-Tribromophenol | 64.7 | 0 | 27.8-112 | | %Rec | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Surr: Nitrobenzene-d5 | 89.6 | 0 | 33-113 | | %Rec | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Surr: 2-Fluorobiphenyl | 73.6 | 0 | 26.6-107 | | %Rec | 1 | 9/5/2019 9:10:22 PM | 47113 |
| Surr: 4-Terphenyl-d14 | 68.2 | 0 | 18.7-148 | | %Rec | 1 | 9/5/2019 9:10:22 PM | 47113 |

EPA METHOD 8260B: VOLATILES

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
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- B Analyte detected in the associated Method Blank
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- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Analyst: JMR

Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-59

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 2:40:00 PM

 Lab ID:
 1908E78-001
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

Result DF **Date Analyzed Batch ID Analyses MDL** RL**Qual Units EPA METHOD 8260B: VOLATILES** Analyst: JMR 7.5 0.17 1.0 8/30/2019 12:27:59 PM R62584 Benzene µg/L 1 Toluene ND 0.35 1.0 μg/L 1 8/30/2019 12:27:59 PM R62584 Ethylbenzene 64 0.13 1.0 1 8/30/2019 12:27:59 PM R62584 µg/L Methyl tert-butyl ether (MTBE) 830 4.6 10 8/31/2019 12:00:16 AM R62584 µg/L 10 1,2,4-Trimethylbenzene ND 0.21 R62584 1.0 µg/L 1 8/30/2019 12:27:59 PM 1.3.5-Trimethylbenzene 0.19 ND 1.0 µg/L 1 8/30/2019 12:27:59 PM R62584 1,2-Dichloroethane (EDC) 10 0.19 1 8/30/2019 12:27:59 PM R62584 1.0 µg/L 1,2-Dibromoethane (EDB) ND 0.17 1.0 μg/L 1 8/30/2019 12:27:59 PM R62584 ND 0.28 1 8/30/2019 12:27:59 PM R62584 Naphthalene 2.0 µg/L 1-Methylnaphthalene ND 0.31 4.0 μg/L 1 8/30/2019 12:27:59 PM R62584 0.35 2-Methylnaphthalene ND 4.0 µg/L 1 8/30/2019 12:27:59 PM R62584 Acetone ND 1.2 10 µg/L 1 8/30/2019 12:27:59 PM R62584 Bromobenzene ND 0.24 1.0 µg/L 1 8/30/2019 12:27:59 PM R62584 Bromodichloromethane ND 0.13 1.0 μg/L 1 8/30/2019 12:27:59 PM R62584 ND 0.29 1 8/30/2019 12:27:59 PM R62584 Bromoform 1.0 µg/L ND 0.27 3.0 1 R62584 Bromomethane µg/L 8/30/2019 12:27:59 PM 2-Butanone ND 2.1 10 µg/L 1 8/30/2019 12:27:59 PM R62584 ND R62584 Carbon disulfide 0.45 10 µg/L 1 8/30/2019 12:27:59 PM Carbon Tetrachloride ND 0.14 1.0 µg/L 1 8/30/2019 12:27:59 PM R62584 Chlorobenzene ND 0.19 1.0 µg/L 1 8/30/2019 12:27:59 PM R62584 Chloroethane ND 0.18 2.0 1 µg/L 8/30/2019 12:27:59 PM R62584 Chloroform ND 0.12 1.0 μg/L 1 8/30/2019 12:27:59 PM R62584 Chloromethane ND 0.32 3.0 1 8/30/2019 12:27:59 PM R62584 µg/L 2-Chlorotoluene ND 0.25 8/30/2019 12:27:59 PM R62584 1.0 µg/L 1 ND 0.23 R62584 4-Chlorotoluene 1.0 µg/L 1 8/30/2019 12:27:59 PM cis-1,2-DCE ND 0.19 1.0 µg/L 1 8/30/2019 12:27:59 PM ND 0.14 μg/L 1 8/30/2019 12:27:59 PM R62584 cis-1,3-Dichloropropene 1.0 1,2-Dibromo-3-chloropropane ND 0.33 2.0 μg/L 1 8/30/2019 12:27:59 PM R62584 ND 0.24 1 R62584 Dibromochloromethane 1.0 µg/L 8/30/2019 12:27:59 PM Dibromomethane ND 0.21 1.0 µg/L 1 8/30/2019 12:27:59 PM R62584 1,2-Dichlorobenzene ND 0.30 1.0 µg/L 1 8/30/2019 12:27:59 PM R62584 1,3-Dichlorobenzene ND 0.25 1.0 μg/L 1 8/30/2019 12:27:59 PM R62584 1,4-Dichlorobenzene ND 0.29 1.0 µg/L 1 8/30/2019 12:27:59 PM R62584 ND Dichlorodifluoromethane 0.26 1.0 μg/L 1 R62584 8/30/2019 12:27:59 PM 1,1-Dichloroethane ND 0.14 1 8/30/2019 12:27:59 PM R62584 1.0 µg/L 1,1-Dichloroethene ND 0.21 1.0 µg/L 1 8/30/2019 12:27:59 PM R62584 1 1,2-Dichloropropane ND 0.21 1.0 µg/L 8/30/2019 12:27:59 PM 1,3-Dichloropropane ND 0.20 1 8/30/2019 12:27:59 PM R62584 1.0 µg/L 2,2-Dichloropropane ND 0.23 2.0 μg/L 8/30/2019 12:27:59 PM R62584

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Received Date: 8/24/2019 10:00:00 AM

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-59

Project: 2019 Annual GW Sampling Event Collection Date: 8/22/2019 2:40:00 PM Matrix: AQUEOUS

Result DF **Date Analyzed Batch ID Analyses MDL** RL**Qual Units EPA METHOD 8260B: VOLATILES** Analyst: JMR ND 0.16 8/30/2019 12:27:59 PM 1.1-Dichloropropene 1.0 µg/L 1 R62584 Hexachlorobutadiene ND 0.31 1.0 μg/L 1 8/30/2019 12:27:59 PM R62584 ND 1.5 10 8/30/2019 12:27:59 PM R62584 2-Hexanone µg/L 1 14 0.19 8/30/2019 12:27:59 PM R62584 Isopropylbenzene 1.0 µg/L 1 0.53 0.22 R62584 4-Isopropyltoluene 1.0 J µg/L 1 8/30/2019 12:27:59 PM 0.71 4-Methyl-2-pentanone ND 10 µg/L 1 8/30/2019 12:27:59 PM R62584 Methylene Chloride ND 0.15 3.0 1 8/30/2019 12:27:59 PM R62584 µg/L n-Butvlbenzene 2.8 0.23 3.0 μg/L 1 8/30/2019 12:27:59 PM R62584 n-Propylbenzene 0.21 1 21 1.0 µg/L 8/30/2019 12:27:59 PM R62584 sec-Butylbenzene 4.7 0.25 1.0 μg/L 1 8/30/2019 12:27:59 PM R62584 Styrene ND 0.19 1.0 µg/L 1 8/30/2019 12:27:59 PM R62584 tert-Butvlbenzene 0.46 0.21 1.0 J µg/L 1 8/30/2019 12:27:59 PM R62584 1.1.1.2-Tetrachloroethane ND 0.21 1.0 µg/L 1 8/30/2019 12:27:59 PM R62584 1.1.2.2-Tetrachloroethane ND 0.55 2.0 μg/L 1 8/30/2019 12:27:59 PM R62584 Tetrachloroethene (PCE) ND 0.15 1 8/30/2019 12:27:59 PM R62584 1.0 µg/L ND 0.18 1 R62584 trans-1,2-DCE 1.0 µg/L 8/30/2019 12:27:59 PM trans-1,3-Dichloropropene ND 0.17 1.0 µg/L 1 8/30/2019 12:27:59 PM R62584 0.30 R62584 1,2,3-Trichlorobenzene ND 1.0 µg/L 1 8/30/2019 12:27:59 PM 1.2.4-Trichlorobenzene ND 0.20 1.0 µg/L 1 8/30/2019 12:27:59 PM R62584 1,1,1-Trichloroethane ND 0.17 1.0 µg/L 1 8/30/2019 12:27:59 PM R62584 ND 0.22 1,1,2-Trichloroethane 1.0 µg/L 1 8/30/2019 12:27:59 PM R62584 Trichloroethene (TCE) ND 0.17 1.0 µg/L 1 8/30/2019 12:27:59 PM R62584 Trichlorofluoromethane ND 0.19 1 R62584 1.0 µg/L 8/30/2019 12:27:59 PM 1,2,3-Trichloropropane ND 0.30 8/30/2019 12:27:59 PM R62584 2.0 µg/L 1 0.18 ND R62584 Vinyl chloride 1.0 µg/L 1 8/30/2019 12:27:59 PM Xylenes, Total ND 0.45 1.5 µg/L 1 8/30/2019 12:27:59 PM Surr: 1,2-Dichloroethane-d4 99.6 0 70-130 %Rec 1 8/30/2019 12:27:59 PM R62584 Surr: 4-Bromofluorobenzene 97.4 0 70-130 %Rec 1 8/30/2019 12:27:59 PM R62584 Surr: Dibromofluoromethane 0 1 102 70-130 %Rec 8/30/2019 12:27:59 PM R62584 Surr: Toluene-d8 97.5 0 70-130 %Rec 1 8/30/2019 12:27:59 PM R62584 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JMR Gasoline Range Organics (GRO) 0.031 1.2 0.050 mg/L 8/30/2019 12:27:59 PM G62584 1 Surr: BFB 101 0 70-130 %Rec 1 8/30/2019 12:27:59 PM G62584 **CARBON DIOXIDE** Analyst: JRR Total Carbon Dioxide 1100 0 Н mg CO2/ 1 8/28/2019 4:59:13 PM R62496 1.0 **SM2510B: SPECIFIC CONDUCTANCE** Analyst: JRR

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

5.0

3200

Oualifiers:

Conductivity

Lab ID:

1908E78-001

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

umhos/c 1

- Value above quantitation range
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

5.0

Page 6 of 90

R62496

8/28/2019 4:59:13 PM

Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-59

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/22/2019 2:40:00 PM

Lab ID: 1908E78-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|-------------------------------------|--------|-------|-------|------|---------|-----|----------------------|----------|
| SM2320B: ALKALINITY | | | | | | | Analyst: JRI | ₹ |
| Bicarbonate (As CaCO3) | 1102 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/28/2019 4:59:13 PM | 1 R62496 |
| Carbonate (As CaCO3) | ND | 2.000 | 2.000 | | mg/L Ca | a 1 | 8/28/2019 4:59:13 PM | 1 R62496 |
| Total Alkalinity (as CaCO3) | 1102 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/28/2019 4:59:13 PM | 1 R62496 |
| SM2540C MOD: TOTAL DISSOLVED SOLIDS | 5 | | | | | | Analyst: KS | |
| Total Dissolved Solids | 2100 | 40.0 | 40.0 | *D | mg/L | 1 | 9/3/2019 10:47:00 AM | 47157 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-63

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 3:30:00 PM

 Lab ID:
 1908E78-002
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

Result DF **Date Analyzed Batch ID Analyses MDL** RL**Qual Units EPA METHOD 8015D: DIESEL RANGE** Analyst: JME Diesel Range Organics (DRO) ND 0.13 0.40 mg/L 1 8/29/2019 2:23:38 AM 47076 ND 2.5 Motor Oil Range Organics (MRO) 2.5 mg/L 1 8/29/2019 2:23:38 AM 47076 Surr: DNOP 132 0 52.7-168 %Rec 1 8/29/2019 2:23:38 AM 47076 **EPA METHOD 300.0: ANIONS** Analyst: CJS Fluoride ND 0.073 0.50 5 9/9/2019 10:36:34 AM mg/L R62781 Chloride 160 5.0 10 mg/L 20 9/9/2019 10:48:55 AM R62781 0.25 **Bromide** 3.2 0.50 mg/L 5 9/9/2019 10:36:34 AM R62781 Phosphorus, Orthophosphate (As P) ND 2.5 5 9/9/2019 10:36:34 AM R62781 1.2 Н mg/L 2200 25 50 9/10/2019 4:13:44 PM R62815 Sulfate 12 mg/L Nitrate+Nitrite as N 0.097 2.0 9/10/2019 6:48:08 PM 66 ma/L 10 A62815 **EPA METHOD 7470: MERCURY** Analyst: rde 0.00028 0.000038 0.00020 9/12/2019 3:44:36 PM 47428 Mercury mg/L 1 **EPA METHOD 6010B: DISSOLVED METALS** Analyst: bcv Arsenic ND 0.019 0.020 mg/L 1 9/9/2019 10:09:15 AM A62764 Barium 0.013 0.00056 0.020 J mg/L 1 9/9/2019 10:09:15 AM A62764 Cadmium 0.00058 ND 0.0020 mg/L 1 9/9/2019 10:09:15 AM A62764 Calcium 420 mg/L 5 9/9/2019 10:11:11 AM A62764 0.30 5.0 Chromium ND 0.0012 0.0060 mg/L 1 9/9/2019 10:09:15 AM A62764 0.0043 0.0023 0.0060 9/9/2019 10:09:15 AM Copper J mg/L 1 A62764 Iron ND 0.0054 0.020 mg/L 1 9/9/2019 10:09:15 AM A62764 Lead ND 0.0048 0.0050 mg/L 1 9/9/2019 10:09:15 AM A62764 mg/L 180 0.30 5 9/9/2019 10:11:11 AM A62764 Magnesium 5.0 Manganese 0.55 0.00026 0.0020 mg/L 1 9/9/2019 10:09:15 AM A62764 1 Potassium 4.5 0.11 mg/L 9/9/2019 10:09:15 AM A62764 1.0 Selenium ND 0.041 0.050 mg/L 1 9/9/2019 10:09:15 AM A62764 Silver 0.0053 0.0013 0.0050 9/9/2019 10:09:15 AM A62764 mg/L 1 Sodium 9/9/2019 12:39:35 PM 540 2.4 10 mg/L 10 A62764 Uranium ND 0.062 0.10 mg/L 1 9/9/2019 10:09:15 AM A62764 0.023 0.0026 0.020 mg/L 1 9/9/2019 10:09:15 AM A62764 **EPA 6010B: TOTAL RECOVERABLE METALS** Analyst: bcv ND Arsenic 0.015 0.020 9/9/2019 8:24:39 AM 47071 mg/L 1 Barium 0.35 0.0012 0.020 mg/L 1 9/5/2019 2:35:49 PM 47071 0.00055 Cadmium ND 0.0020 mg/L 1 9/5/2019 2:35:49 PM 47071 Chromium 0.0099 0.00086 0.0060 mg/L 1 9/5/2019 2:35:49 PM 47071 1 Lead ND 0.0035 0.0050 mg/L 9/5/2019 2:35:49 PM 47071 Selenium ND 0.035 0.050 mg/L 1 9/9/2019 8:24:39 AM 47071 Silver 0.0027 0.00055 0.0050 J mg/L 9/5/2019 2:35:49 PM 47071

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Oualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Received Date: 8/24/2019 10:00:00 AM

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-63

Project: 2019 Annual GW Sampling Event Collection Date: 8/22/2019 3:30:00 PM Matrix: AQUEOUS

Result DF **Date Analyzed Batch ID Analyses MDL** RL**Qual Units EPA METHOD 8260B: VOLATILES** Analyst: JMR ND 0.17 1.0 8/30/2019 1:54:24 PM Benzene µg/L 1 R62584 Toluene ND 0.35 1.0 μg/L 1 8/30/2019 1:54:24 PM R62584 Ethylbenzene ND 0.13 1.0 8/30/2019 1:54:24 PM R62584 µg/L 1 Methyl tert-butyl ether (MTBE) 0.46 8/30/2019 1:54:24 PM R62584 3.8 1.0 µg/L 1 1,2,4-Trimethylbenzene ND 0.21 1.0 µg/L 1 8/30/2019 1:54:24 PM R62584 1.3.5-Trimethylbenzene ND 0.19 1.0 µg/L 1 8/30/2019 1:54:24 PM R62584 1,2-Dichloroethane (EDC) ND 0.19 1 8/30/2019 1:54:24 PM R62584 1.0 µg/L 1,2-Dibromoethane (EDB) ND 0.17 1.0 μg/L 1 8/30/2019 1:54:24 PM R62584 0.28 1 Naphthalene ND 2.0 µg/L 8/30/2019 1:54:24 PM R62584 1-Methylnaphthalene ND 0.31 4.0 μg/L 1 8/30/2019 1:54:24 PM R62584 2-Methylnaphthalene ND 0.35 4.0 µg/L 1 8/30/2019 1:54:24 PM R62584 Acetone 8.0 1.2 10 J µg/L 1 8/30/2019 1:54:24 PM R62584 Bromobenzene ND 0.24 1.0 µg/L 1 8/30/2019 1:54:24 PM R62584 Bromodichloromethane ND 0.13 1.0 μg/L 1 8/30/2019 1:54:24 PM R62584 ND 0.29 1 8/30/2019 1:54:24 PM R62584 Bromoform 1.0 µg/L ND 0.27 3.0 1 R62584 Bromomethane µg/L 8/30/2019 1:54:24 PM 2-Butanone ND 2.1 10 µg/L 1 8/30/2019 1:54:24 PM R62584 ND Carbon disulfide 0.45 10 µg/L 1 8/30/2019 1:54:24 PM R62584 Carbon Tetrachloride ND 0.14 1.0 µg/L 1 8/30/2019 1:54:24 PM R62584 Chlorobenzene ND 0.19 1.0 µg/L 1 8/30/2019 1:54:24 PM R62584 Chloroethane ND 0.18 2.0 1 µg/L 8/30/2019 1:54:24 PM R62584 Chloroform ND 0.12 1.0 µg/L 1 8/30/2019 1:54:24 PM R62584 Chloromethane ND 0.32 3.0 1 8/30/2019 1:54:24 PM R62584 µg/L 2-Chlorotoluene ND 0.25 8/30/2019 1:54:24 PM R62584 1.0 µg/L 1 ND 0.23 4-Chlorotoluene 1.0 µg/L 1 8/30/2019 1:54:24 PM R62584 cis-1,2-DCE ND 0.19 1.0 µg/L 1 8/30/2019 1:54:24 PM R62584 ND 0.14 μg/L 1 8/30/2019 1:54:24 PM R62584 cis-1,3-Dichloropropene 1.0 1,2-Dibromo-3-chloropropane ND 0.33 2.0 μg/L 1 8/30/2019 1:54:24 PM R62584 ND 0.24 1 Dibromochloromethane 1.0 µg/L 8/30/2019 1:54:24 PM R62584 Dibromomethane ND 0.21 1.0 µg/L 1 8/30/2019 1:54:24 PM R62584 1,2-Dichlorobenzene ND 0.30 1.0 µg/L 1 8/30/2019 1:54:24 PM R62584 1,3-Dichlorobenzene ND 0.25 1.0 μg/L 1 8/30/2019 1:54:24 PM R62584 1,4-Dichlorobenzene ND 0.29 1.0 µg/L 1 8/30/2019 1:54:24 PM R62584 ND Dichlorodifluoromethane 0.26 1.0 μg/L 1 8/30/2019 1:54:24 PM R62584 1,1-Dichloroethane ND 0.14 1 8/30/2019 1:54:24 PM R62584 1.0 µg/L 1,1-Dichloroethene ND 0.21 1.0 µg/L 1 8/30/2019 1:54:24 PM R62584 1 1,2-Dichloropropane ND 0.21 1.0 µg/L 8/30/2019 1:54:24 PM R62584 1,3-Dichloropropane ND 0.20 1 8/30/2019 1:54:24 PM R62584 1.0 µg/L

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

0.23

ND

Oualifiers:

2,2-Dichloropropane

Lab ID:

1908E78-002

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

μg/L

- Value above quantitation range
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

2.0

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R62584

8/30/2019 1:54:24 PM

Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-63

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 3:30:00 PM

 Lab ID: 1908E78-002
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed I | Batch ID |
|----------------------------------|--------|-------|--------|------|--------|------|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JMR | |
| 1,1-Dichloropropene | ND | 0.16 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| Hexachlorobutadiene | ND | 0.31 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| 2-Hexanone | ND | 1.5 | 10 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| Isopropylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| 4-Isopropyltoluene | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| 4-Methyl-2-pentanone | ND | 0.71 | 10 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| Methylene Chloride | ND | 0.15 | 3.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| n-Butylbenzene | ND | 0.23 | 3.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| n-Propylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| sec-Butylbenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| Styrene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| tert-Butylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| 1,1,1,2-Tetrachloroethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| 1,1,2,2-Tetrachloroethane | ND | 0.55 | 2.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| Tetrachloroethene (PCE) | ND | 0.15 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| trans-1,2-DCE | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| trans-1,3-Dichloropropene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| 1,2,3-Trichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| 1,2,4-Trichlorobenzene | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| 1,1,1-Trichloroethane | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| 1,1,2-Trichloroethane | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| Trichloroethene (TCE) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| Trichlorofluoromethane | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| 1,2,3-Trichloropropane | ND | 0.30 | 2.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| Vinyl chloride | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| Xylenes, Total | ND | 0.45 | 1.5 | | μg/L | 1 | 8/30/2019 1:54:24 PM | R62584 |
| Surr: 1,2-Dichloroethane-d4 | 96.7 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 1:54:24 PM | R62584 |
| Surr: 4-Bromofluorobenzene | 96.9 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 1:54:24 PM | R62584 |
| Surr: Dibromofluoromethane | 102 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 1:54:24 PM | R62584 |
| Surr: Toluene-d8 | 99.0 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 1:54:24 PM | R62584 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: JMR | |
| Gasoline Range Organics (GRO) | ND | 0.031 | 0.050 | | mg/L | 1 | 8/30/2019 1:54:24 PM | G62584 |
| Surr: BFB | 101 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 1:54:24 PM | G62584 |
| CARBON DIOXIDE | | | | | | | Analyst: JRR | |
| Total Carbon Dioxide | 600 | 0 | 1.0 | Н | mg CO | 2/ 1 | 8/28/2019 5:38:01 PM | R62496 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | | Analyst: JRR | |
| Conductivity | 4900 | 5.0 | 5.0 | | µmhos/ | ′c 1 | 8/28/2019 5:38:01 PM | R62496 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-63

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/22/2019 3:30:00 PM

Lab ID: 1908E78-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|-------|-------|------|---------|-----|----------------------|----------|
| SM2320B: ALKALINITY | | | | | | | Analyst: JRR | 2 |
| Bicarbonate (As CaCO3) | 593.4 | 20.00 | 20.00 | | mg/L Ca | ı 1 | 8/28/2019 5:38:01 PM | R62496 |
| Carbonate (As CaCO3) | ND | 2.000 | 2.000 | | mg/L Ca | ı 1 | 8/28/2019 5:38:01 PM | R62496 |
| Total Alkalinity (as CaCO3) | 593.4 | 20.00 | 20.00 | | mg/L Ca | ı 1 | 8/28/2019 5:38:01 PM | R62496 |
| SM2540C MOD: TOTAL DISSOLVED SOLID | S | | | | | | Analyst: KS | |
| Total Dissolved Solids | 4090 | 100 | 100 | *D | mg/L | 1 | 9/3/2019 10:47:00 AM | 47157 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-64

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/22/2019 4:15:00 PM

 Lab ID: 1908E78-003
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|-----------------------------------|---------|----------|----------|------|-------|-----|----------------------|----------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | | Analyst: JM | |
| Diesel Range Organics (DRO) | ND | 0.13 | 0.40 | | mg/L | 1 | 8/29/2019 2:48:19 AM | 47076 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | 2.5 | | mg/L | 1 | 8/29/2019 2:48:19 AM | 47076 |
| Surr: DNOP | 137 | 0 | 52.7-168 | | %Rec | 1 | 8/29/2019 2:48:19 AM | 47076 |
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS | 3 |
| Fluoride | ND | 0.073 | 0.50 | | mg/L | 5 | 9/9/2019 11:01:15 AM | R62781 |
| Chloride | 860 | 25 | 50 | * | mg/L | 100 | 9/10/2019 4:26:36 PM | R62815 |
| Bromide | 2.4 | 0.25 | 0.50 | | mg/L | 5 | 9/9/2019 11:01:15 AM | R62781 |
| Phosphorus, Orthophosphate (As P) | ND | 1.2 | 2.5 | Н | mg/L | 5 | 9/9/2019 11:01:15 AM | R62781 |
| Sulfate | 1500 | 25 | 50 | * | mg/L | 100 | 9/10/2019 4:26:36 PM | R62815 |
| Nitrate+Nitrite as N | 45 | 0.097 | 2.0 | * | mg/L | 10 | 9/10/2019 7:01:00 PM | A62815 |
| EPA METHOD 7470: MERCURY | | | | | | | Analyst: rde | |
| Mercury | 0.00021 | 0.000038 | 0.00020 | | mg/L | 1 | 9/12/2019 3:46:54 PM | 47428 |
| EPA METHOD 6010B: DISSOLVED META | ALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.019 | 0.020 | | mg/L | 1 | 9/9/2019 10:13:01 AM | A62764 |
| Barium | 0.0098 | 0.00056 | 0.020 | J | mg/L | 1 | 9/9/2019 10:13:01 AM | A62764 |
| Cadmium | ND | 0.00058 | 0.0020 | | mg/L | 1 | 9/9/2019 10:13:01 AM | A62764 |
| Calcium | 440 | 0.30 | 5.0 | | mg/L | 5 | 9/9/2019 10:14:58 AM | A62764 |
| Chromium | ND | 0.0012 | 0.0060 | | mg/L | 1 | 9/9/2019 10:13:01 AM | A62764 |
| Copper | 0.0029 | 0.0023 | 0.0060 | J | mg/L | 1 | 9/9/2019 10:13:01 AM | A62764 |
| Iron | 0.027 | 0.0054 | 0.020 | | mg/L | 1 | 9/9/2019 10:13:01 AM | A62764 |
| Lead | ND | 0.0048 | 0.0050 | | mg/L | 1 | 9/9/2019 10:13:01 AM | A62764 |
| Magnesium | 67 | 0.061 | 1.0 | | mg/L | 1 | 9/9/2019 10:13:01 AM | A62764 |
| Manganese | 0.00036 | 0.00026 | 0.0020 | J | mg/L | 1 | 9/9/2019 10:13:01 AM | A62764 |
| Potassium | 4.4 | 0.11 | 1.0 | | mg/L | 1 | 9/9/2019 10:13:01 AM | A62764 |
| Selenium | ND | 0.041 | 0.050 | | mg/L | 1 | 9/9/2019 10:13:01 AM | A62764 |
| Silver | 0.0060 | 0.0013 | 0.0050 | | mg/L | 1 | 9/9/2019 10:13:01 AM | A62764 |
| Sodium | 780 | 2.4 | 10 | | mg/L | 10 | 9/9/2019 12:41:23 PM | A62764 |
| Uranium | ND | 0.062 | 0.10 | | mg/L | 1 | 9/9/2019 10:13:01 AM | A62764 |
| Zinc | 0.015 | 0.0026 | 0.020 | J | mg/L | 1 | 9/9/2019 10:13:01 AM | A62764 |
| EPA 6010B: TOTAL RECOVERABLE ME | TALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.015 | 0.020 | | mg/L | 1 | 9/9/2019 8:26:22 AM | 47071 |
| Barium | 0.35 | 0.0012 | 0.020 | | mg/L | 1 | 9/5/2019 2:37:29 PM | 47071 |
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 2:37:29 PM | 47071 |
| Chromium | 0.011 | 0.00086 | 0.0060 | | mg/L | 1 | 9/5/2019 2:37:29 PM | 47071 |
| Lead | ND | 0.0035 | 0.0050 | | mg/L | 1 | 9/5/2019 2:37:29 PM | 47071 |
| Selenium | ND | 0.035 | 0.050 | | mg/L | 1 | 9/9/2019 8:26:22 AM | 47071 |
| Silver | 0.0032 | 0.00055 | 0.0050 | J | mg/L | 1 | 9/5/2019 2:37:29 PM | 47071 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-64

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/22/2019 4:15:00 PM

Lab ID: 1908E78-003 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|------|-----|------------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | Analyst: JM I | R |
| Benzene | ND | 0.17 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| Toluene | ND | 0.35 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Ethylbenzene | ND | 0.13 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| Methyl tert-butyl ether (MTBE) | ND | 0.46 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1,2,4-Trimethylbenzene | ND | 0.21 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1,3,5-Trimethylbenzene | ND | 0.19 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1,2-Dichloroethane (EDC) | ND | 0.19 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1,2-Dibromoethane (EDB) | ND | 0.17 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Naphthalene | ND | 0.28 | 2.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1-Methylnaphthalene | ND | 0.31 | 4.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 2-Methylnaphthalene | ND | 0.35 | 4.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Acetone | ND | 1.2 | 10 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Bromobenzene | ND | 0.24 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| Bromodichloromethane | ND | 0.13 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| Bromoform | ND | 0.29 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| Bromomethane | ND | 0.27 | 3.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| 2-Butanone | ND | 2.1 | 10 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| Carbon disulfide | ND | 0.45 | 10 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| Carbon Tetrachloride | ND | 0.14 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Chlorobenzene | ND | 0.19 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| Chloroethane | ND | 0.18 | 2.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Chloroform | ND | 0.12 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| Chloromethane | ND | 0.32 | 3.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 2-Chlorotoluene | ND | 0.25 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| 4-Chlorotoluene | ND | 0.23 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| cis-1,2-DCE | ND | 0.19 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| cis-1,3-Dichloropropene | ND | 0.14 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| 1,2-Dibromo-3-chloropropane | ND | 0.33 | 2.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| Dibromochloromethane | ND | 0.24 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| Dibromomethane | ND | 0.21 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| 1,2-Dichlorobenzene | ND | 0.30 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| 1,3-Dichlorobenzene | ND | 0.25 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| 1,4-Dichlorobenzene | ND | 0.29 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |
| Dichlorodifluoromethane | ND | 0.26 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1,1-Dichloroethane | ND | 0.14 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1,1-Dichloroethene | ND | 0.21 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1,2-Dichloropropane | ND | 0.21 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1,3-Dichloropropane | ND | 0.20 | 1.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 2,2-Dichloropropane | ND | 0.23 | 2.0 | μg/L | 1 | 8/30/2019 3:21:00 PM | 1 R62584 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-64

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/22/2019 4:15:00 PM

Lab ID: 1908E78-003 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|----------------------------------|--------|-------|--------|------|---------|-----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JMR | |
| 1,1-Dichloropropene | ND | 0.16 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Hexachlorobutadiene | ND | 0.31 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 2-Hexanone | ND | 1.5 | 10 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Isopropylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 4-Isopropyltoluene | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 4-Methyl-2-pentanone | ND | 0.71 | 10 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Methylene Chloride | ND | 0.15 | 3.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| n-Butylbenzene | ND | 0.23 | 3.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| n-Propylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| sec-Butylbenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Styrene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| tert-Butylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1,1,1,2-Tetrachloroethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1,1,2,2-Tetrachloroethane | ND | 0.55 | 2.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Tetrachloroethene (PCE) | ND | 0.15 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| trans-1,2-DCE | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| trans-1,3-Dichloropropene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1,2,3-Trichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1,2,4-Trichlorobenzene | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1,1,1-Trichloroethane | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1,1,2-Trichloroethane | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Trichloroethene (TCE) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Trichlorofluoromethane | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| 1,2,3-Trichloropropane | ND | 0.30 | 2.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Vinyl chloride | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Xylenes, Total | ND | 0.45 | 1.5 | | μg/L | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Surr: 1,2-Dichloroethane-d4 | 96.3 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Surr: 4-Bromofluorobenzene | 92.6 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Surr: Dibromofluoromethane | 102 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 3:21:00 PM | R62584 |
| Surr: Toluene-d8 | 97.3 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 3:21:00 PM | R62584 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: JMR | |
| Gasoline Range Organics (GRO) | ND | 0.031 | 0.050 | | mg/L | 1 | 8/30/2019 3:21:00 PM | G62584 |
| Surr: BFB | 97.2 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 3:21:00 PM | G62584 |
| CARBON DIOXIDE | | | | | | | Analyst: JRR | |
| Total Carbon Dioxide | 270 | 0 | 1.0 | Н | mg CO2 | / 1 | 8/28/2019 6:01:59 PM | R62496 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | | Analyst: JRR | |
| Conductivity | 5900 | 5.0 | 5.0 | | µmhos/c | : 1 | 8/28/2019 6:01:59 PM | R62496 |

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Qualifiers:

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- B Analyte detected in the associated Method Blank
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- P Sample pH Not In Range
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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-64

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/22/2019 4:15:00 PM

Lab ID: 1908E78-003 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|-------|-------|------|---------|-----|----------------------|----------|
| SM2320B: ALKALINITY | | | | | | | Analyst: JRF | |
| Bicarbonate (As CaCO3) | 276.5 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/28/2019 6:01:59 PM | R62496 |
| Carbonate (As CaCO3) | ND | 2.000 | 2.000 | | mg/L Ca | a 1 | 8/28/2019 6:01:59 PM | R62496 |
| Total Alkalinity (as CaCO3) | 276.5 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/28/2019 6:01:59 PM | R62496 |
| SM2540C MOD: TOTAL DISSOLVED SOLIE | os | | | | | | Analyst: KS | |
| Total Dissolved Solids | 4060 | 100 | 100 | *D | mg/L | 1 | 9/3/2019 10:47:00 AM | 47157 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-70

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 7:45:00 AM

 Lab ID: 1908E78-004
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed E | atch ID |
|-----------------------------------|---------|----------|----------|------|-------|-----|-----------------------|---------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | | Analyst: JME | |
| Diesel Range Organics (DRO) | ND | 0.13 | 0.40 | | mg/L | 1 | 8/29/2019 3:13:07 AM | 47076 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | 2.5 | | mg/L | 1 | 8/29/2019 3:13:07 AM | 47076 |
| Surr: DNOP | 149 | 0 | 52.7-168 | | %Rec | 1 | 8/29/2019 3:13:07 AM | 47076 |
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS | |
| Fluoride | 0.26 | 0.073 | 0.50 | J | mg/L | 5 | 9/9/2019 11:50:39 AM | R62781 |
| Chloride | 340 | 5.0 | 10 | * | mg/L | 20 | 9/9/2019 12:02:59 PM | R62781 |
| Bromide | 1.6 | 0.25 | 0.50 | | mg/L | 5 | 9/9/2019 11:50:39 AM | R62781 |
| Phosphorus, Orthophosphate (As P) | ND | 1.2 | 2.5 | Н | mg/L | 5 | 9/9/2019 11:50:39 AM | R62781 |
| Sulfate | 2100 | 25 | 50 | * | mg/L | 100 | 9/10/2019 4:39:29 PM | R62815 |
| Nitrate+Nitrite as N | 0.33 | 0.048 | 1.0 | J | mg/L | 5 | 9/9/2019 6:13:22 PM | R62781 |
| EPA METHOD 7470: MERCURY | | | | | | | Analyst: rde | |
| Mercury | 0.00012 | 0.000038 | 0.00020 | J | mg/L | 1 | 9/12/2019 3:49:11 PM | 47428 |
| EPA METHOD 6010B: DISSOLVED MET | ΓALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.019 | 0.020 | | mg/L | 1 | 9/9/2019 10:22:22 AM | A62764 |
| Barium | 0.013 | 0.00056 | 0.020 | J | mg/L | 1 | 9/9/2019 10:22:22 AM | A62764 |
| Cadmium | ND | 0.00058 | 0.0020 | | mg/L | 1 | 9/9/2019 10:22:22 AM | A62764 |
| Calcium | 610 | 0.60 | 10 | | mg/L | 10 | 9/9/2019 12:48:44 PM | A62764 |
| Chromium | ND | 0.0012 | 0.0060 | | mg/L | 1 | 9/9/2019 10:22:22 AM | A62764 |
| Copper | 0.0037 | 0.0023 | 0.0060 | J | mg/L | 1 | 9/9/2019 10:22:22 AM | A62764 |
| Iron | 5.3 | 0.054 | 0.20 | | mg/L | 10 | 9/18/2019 12:10:59 PM | A63017 |
| Lead | ND | 0.0048 | 0.0050 | | mg/L | 1 | 9/9/2019 10:22:22 AM | A62764 |
| Magnesium | 150 | 0.30 | 5.0 | | mg/L | 5 | 9/9/2019 10:24:06 AM | A62764 |
| Manganese | 1.6 | 0.0013 | 0.010 | | mg/L | 5 | 9/9/2019 10:24:06 AM | A62764 |
| Potassium | 3.5 | 0.11 | 1.0 | | mg/L | 1 | 9/9/2019 10:22:22 AM | A62764 |
| Selenium | ND | 0.041 | 0.050 | | mg/L | 1 | 9/9/2019 10:22:22 AM | A62764 |
| Silver | 0.0071 | 0.0013 | 0.0050 | | mg/L | 1 | 9/9/2019 10:22:22 AM | A62764 |
| Sodium | 610 | 2.4 | 10 | | mg/L | 10 | 9/9/2019 12:48:44 PM | A62764 |
| Uranium | ND | 0.062 | 0.10 | | mg/L | 1 | 9/9/2019 10:22:22 AM | A62764 |
| Zinc | 0.017 | 0.0026 | 0.020 | J | mg/L | 1 | 9/9/2019 10:22:22 AM | A62764 |
| EPA 6010B: TOTAL RECOVERABLE M | ETALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.015 | 0.020 | | mg/L | 1 | 9/9/2019 8:28:03 AM | 47071 |
| Barium | 0.15 | 0.0012 | 0.020 | | mg/L | 1 | 9/5/2019 2:39:08 PM | 47071 |
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 2:39:08 PM | 47071 |
| Chromium | ND | 0.00086 | 0.0060 | | mg/L | 1 | 9/5/2019 2:39:08 PM | 47071 |
| Lead | ND | 0.0035 | 0.0050 | | mg/L | 1 | 9/5/2019 2:39:08 PM | 47071 |
| Selenium | ND | 0.035 | 0.050 | | mg/L | 1 | 9/9/2019 8:28:03 AM | 47071 |
| Silver | 0.0051 | 0.00055 | 0.0050 | | mg/L | 1 | 9/5/2019 2:39:08 PM | 47071 |
| | | | | | | | | |

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- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-70

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/23/2019 7:45:00 AM

Lab ID: 1908E78-004 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|------|-----|------|-------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JMF | ₹ |
| Benzene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Toluene | ND | 0.35 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Ethylbenzene | ND | 0.13 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Methyl tert-butyl ether (MTBE) | 0.54 | 0.46 | 1.0 | J | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 1,2,4-Trimethylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 1,3,5-Trimethylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 1,2-Dichloroethane (EDC) | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 1,2-Dibromoethane (EDB) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Naphthalene | ND | 0.28 | 2.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 1-Methylnaphthalene | ND | 0.31 | 4.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 2-Methylnaphthalene | ND | 0.35 | 4.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Acetone | ND | 1.2 | 10 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Bromobenzene | ND | 0.24 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Bromodichloromethane | ND | 0.13 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Bromoform | ND | 0.29 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Bromomethane | ND | 0.27 | 3.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 2-Butanone | ND | 2.1 | 10 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Carbon disulfide | ND | 0.45 | 10 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Carbon Tetrachloride | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Chlorobenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Chloroethane | ND | 0.18 | 2.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Chloroform | ND | 0.12 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Chloromethane | ND | 0.32 | 3.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 2-Chlorotoluene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 4-Chlorotoluene | ND | 0.23 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| cis-1,2-DCE | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| cis-1,3-Dichloropropene | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 1,2-Dibromo-3-chloropropane | ND | 0.33 | 2.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Dibromochloromethane | ND | 0.24 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Dibromomethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 1,2-Dichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 1,3-Dichlorobenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 1,4-Dichlorobenzene | ND | 0.29 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| Dichlorodifluoromethane | ND | 0.26 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 1,1-Dichloroethane | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 1,1-Dichloroethene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 1,2-Dichloropropane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 1,3-Dichloropropane | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |
| 2,2-Dichloropropane | ND | 0.23 | 2.0 | | μg/L | 1 | 8/30/2019 3:49:54 PM | R62584 |

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Received Date: 8/24/2019 10:00:00 AM

Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-70

Project: 2019 Annual GW Sampling Event Collection Date: 8/23/2019 7:45:00 AM Matrix: AQUEOUS

Result DF **Date Analyzed Batch ID Analyses MDL** RL**Qual Units EPA METHOD 8260B: VOLATILES** Analyst: JMR ND 0.16 8/30/2019 3:49:54 PM 1.1-Dichloropropene 1.0 µg/L 1 R62584 Hexachlorobutadiene ND 0.31 1.0 μg/L 1 8/30/2019 3:49:54 PM R62584 ND 1.5 10 8/30/2019 3:49:54 PM R62584 2-Hexanone µg/L 1 ND 0.19 8/30/2019 3:49:54 PM R62584 Isopropylbenzene 1.0 µg/L 1 ND 0.22 4-Isopropyltoluene 1.0 µg/L 1 8/30/2019 3:49:54 PM R62584 0.71 4-Methyl-2-pentanone ND 10 ua/L 1 8/30/2019 3:49:54 PM R62584 Methylene Chloride ND 0.15 3.0 1 R62584 µg/L 8/30/2019 3:49:54 PM n-Butvlbenzene ND 0.23 3.0 μg/L 1 8/30/2019 3:49:54 PM R62584 n-Propylbenzene 0.21 1 ND 1.0 µg/L 8/30/2019 3:49:54 PM R62584 sec-Butylbenzene ND 0.25 1.0 1 8/30/2019 3:49:54 PM R62584 µg/L Styrene ND 0.19 1.0 µg/L 1 8/30/2019 3:49:54 PM R62584 tert-Butvlbenzene ND 0.21 1.0 µg/L 1 8/30/2019 3:49:54 PM R62584 1.1.1.2-Tetrachloroethane ND 0.21 1.0 µg/L 1 8/30/2019 3:49:54 PM R62584 1.1.2.2-Tetrachloroethane ND 0.55 2.0 μg/L 1 8/30/2019 3:49:54 PM R62584 Tetrachloroethene (PCE) ND 0.15 1 8/30/2019 3:49:54 PM R62584 1.0 µg/L ND 0.18 1 trans-1,2-DCE 1.0 µg/L 8/30/2019 3:49:54 PM R62584 trans-1,3-Dichloropropene ND 0.17 1.0 µg/L 1 8/30/2019 3:49:54 PM R62584 0.30 1,2,3-Trichlorobenzene ND 1.0 µg/L 1 8/30/2019 3:49:54 PM R62584 1.2.4-Trichlorobenzene ND 0.20 1.0 µg/L 1 8/30/2019 3:49:54 PM R62584 1,1,1-Trichloroethane ND 0.17 1.0 µg/L 1 8/30/2019 3:49:54 PM R62584 ND 0.22 1,1,2-Trichloroethane 1.0 µg/L 1 8/30/2019 3:49:54 PM R62584 Trichloroethene (TCE) ND 0.17 1.0 μg/L 1 8/30/2019 3:49:54 PM R62584 Trichlorofluoromethane ND 0.19 1 R62584 1.0 µg/L 8/30/2019 3:49:54 PM 1,2,3-Trichloropropane ND 0.30 8/30/2019 3:49:54 PM R62584 2.0 µg/L 1 ND 0.18 Vinyl chloride 1.0 µg/L 1 8/30/2019 3:49:54 PM R62584 Xylenes, Total ND 0.45 1.5 µg/L 1 8/30/2019 3:49:54 PM R62584 Surr: 1,2-Dichloroethane-d4 96.3 0 70-130 %Rec 1 8/30/2019 3:49:54 PM R62584

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

5.0

0

0

0

0

0

0.031

70-130

70-130

70-130

0.050

70-130

1.0

5.0

93.7

101

99.0

ND

98.0

790

5400

Oualifiers:

Lab ID:

1908E78-004

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

Surr: 4-Bromofluorobenzene

Surr: Dibromofluoromethane

Gasoline Range Organics (GRO)

EPA METHOD 8015D: GASOLINE RANGE

SM2510B: SPECIFIC CONDUCTANCE

Surr: Toluene-d8

Surr: BFB

Conductivity

CARBON DIOXIDE

Total Carbon Dioxide

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

%Rec

%Rec

%Rec

mg/L

%Rec

mg CO2/ 1

µmhos/c 1

1

1

1

1

1

8/30/2019 3:49:54 PM

8/30/2019 3:49:54 PM

8/30/2019 3:49:54 PM

8/30/2019 3:49:54 PM

8/30/2019 3:49:54 PM

8/28/2019 6:15:44 PM

8/28/2019 6:15:44 PM

Analyst: JMR

Analyst: JRR

Analyst: JRR

- Value above quantitation range
- Analyte detected below quantitation limits
- Р Sample pH Not In Range

Н

RL Reporting Limit Page 18 of 90

R62584

R62584

R62584

G62584

G62584

R62496

R62496

Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-70

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/23/2019 7:45:00 AM

Lab ID: 1908E78-004 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|-------|-------|------|---------|-----|----------------------|----------|
| SM2320B: ALKALINITY | | | | | | | Analyst: JRF | |
| Bicarbonate (As CaCO3) | 785.4 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/28/2019 6:15:44 PM | R62496 |
| Carbonate (As CaCO3) | ND | 2.000 | 2.000 | | mg/L Ca | a 1 | 8/28/2019 6:15:44 PM | R62496 |
| Total Alkalinity (as CaCO3) | 785.4 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/28/2019 6:15:44 PM | R62496 |
| SM2540C MOD: TOTAL DISSOLVED SOLID | os | | | | | | Analyst: KS | |
| Total Dissolved Solids | 4740 | 100 | 100 | *D | mg/L | 1 | 9/3/2019 10:47:00 AM | 47157 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Trip Blank

Project: 2019 Annual GW Sampling Event Collection Date:

Lab ID: 1908E78-005 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|------|-----|------|-------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JM | R |
| Benzene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| Toluene | ND | 0.35 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| Ethylbenzene | ND | 0.13 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| Methyl tert-butyl ether (MTBE) | ND | 0.46 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| 1,2,4-Trimethylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| 1,3,5-Trimethylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| 1,2-Dichloroethane (EDC) | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| 1,2-Dibromoethane (EDB) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| Naphthalene | ND | 0.28 | 2.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| 1-Methylnaphthalene | ND | 0.31 | 4.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| 2-Methylnaphthalene | ND | 0.35 | 4.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Acetone | ND | 1.2 | 10 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| Bromobenzene | ND | 0.24 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| Bromodichloromethane | ND | 0.13 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | |
| Bromoform | ND | 0.29 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| Bromomethane | ND | 0.27 | 3.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| 2-Butanone | ND | 2.1 | 10 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| Carbon disulfide | ND | 0.45 | 10 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| Carbon Tetrachloride | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| Chlorobenzene | 0.48 | 0.19 | 1.0 | J | μg/L | 1 | 8/30/2019 4:18:48 PM | |
| Chloroethane | ND | 0.18 | 2.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| Chloroform | ND | 0.12 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Chloromethane | ND | 0.32 | 3.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | |
| 2-Chlorotoluene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| 4-Chlorotoluene | ND | 0.23 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| cis-1,2-DCE | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| cis-1,3-Dichloropropene | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| 1,2-Dibromo-3-chloropropane | ND | 0.33 | 2.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| Dibromochloromethane | ND | 0.24 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Dibromomethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| 1,2-Dichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| 1,3-Dichlorobenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| 1,4-Dichlorobenzene | ND | 0.29 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| Dichlorodifluoromethane | ND | 0.26 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| 1,1-Dichloroethane | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| 1,1-Dichloroethene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| 1,2-Dichloropropane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | 1 R62584 |
| 1,3-Dichloropropane | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | |
| 2,2-Dichloropropane | ND | 0.23 | 2.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Trip Blank

Project: 2019 Annual GW Sampling Event Collection Date:

Lab ID: 1908E78-005 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|----------------------------------|--------|-------|--------|------|-------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JMF | |
| 1,1-Dichloropropene | ND | 0.16 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Hexachlorobutadiene | ND | 0.31 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| 2-Hexanone | ND | 1.5 | 10 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Isopropylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| 4-Isopropyltoluene | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| 4-Methyl-2-pentanone | ND | 0.71 | 10 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Methylene Chloride | 0.19 | 0.15 | 3.0 | J | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| n-Butylbenzene | ND | 0.23 | 3.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| n-Propylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| sec-Butylbenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Styrene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| tert-Butylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| 1,1,1,2-Tetrachloroethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| 1,1,2,2-Tetrachloroethane | ND | 0.55 | 2.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Tetrachloroethene (PCE) | ND | 0.15 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| trans-1,2-DCE | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| trans-1,3-Dichloropropene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| 1,2,3-Trichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| 1,2,4-Trichlorobenzene | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| 1,1,1-Trichloroethane | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| 1,1,2-Trichloroethane | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Trichloroethene (TCE) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Trichlorofluoromethane | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| 1,2,3-Trichloropropane | ND | 0.30 | 2.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Vinyl chloride | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Xylenes, Total | ND | 0.45 | 1.5 | | μg/L | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Surr: 1,2-Dichloroethane-d4 | 94.1 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Surr: 4-Bromofluorobenzene | 93.2 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Surr: Dibromofluoromethane | 101 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 4:18:48 PM | R62584 |
| Surr: Toluene-d8 | 95.9 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 4:18:48 PM | R62584 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: JMF | Ł |
| Gasoline Range Organics (GRO) | ND | 0.031 | 0.050 | | mg/L | 1 | 8/30/2019 4:18:48 PM | G62584 |
| Surr: BFB | 96.4 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 4:18:48 PM | G62584 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Collection Date: 8/23/2019

Lab ID: 1908E78-006 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed B | Batch ID |
|-----------------------------------|---------|----------|----------|------|-------|-----|-----------------------|----------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | | Analyst: JME | |
| Diesel Range Organics (DRO) | ND | 0.13 | 0.40 | | mg/L | 1 | 8/29/2019 3:37:47 AM | 47076 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | 2.5 | | mg/L | 1 | 8/29/2019 3:37:47 AM | 47076 |
| Surr: DNOP | 110 | 0 | 52.7-168 | | %Rec | 1 | 8/29/2019 3:37:47 AM | 47076 |
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS | |
| Fluoride | 0.27 | 0.073 | 0.50 | J | mg/L | 5 | 9/9/2019 12:15:20 PM | R62781 |
| Chloride | 340 | 5.0 | 10 | * | mg/L | 20 | 9/9/2019 12:27:40 PM | R62781 |
| Bromide | 1.6 | 0.25 | 0.50 | | mg/L | 5 | 9/9/2019 12:15:20 PM | R62781 |
| Phosphorus, Orthophosphate (As P) | ND | 5.0 | 10 | Н | mg/L | 20 | 9/9/2019 12:27:40 PM | R62781 |
| Sulfate | 2100 | 25 | 50 | * | mg/L | 100 | 9/10/2019 4:52:21 PM | R62815 |
| Nitrate+Nitrite as N | 0.29 | 0.048 | 1.0 | J | mg/L | 5 | 9/9/2019 6:25:43 PM | R62781 |
| EPA METHOD 7470: MERCURY | | | | | | | Analyst: rde | |
| Mercury | 0.00014 | 0.000038 | 0.00020 | J | mg/L | 1 | 9/12/2019 3:51:29 PM | 47428 |
| EPA METHOD 6010B: DISSOLVED META | LS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.019 | 0.020 | | mg/L | 1 | 9/9/2019 10:25:48 AM | A62764 |
| Barium | 0.013 | 0.00056 | 0.020 | J | mg/L | 1 | 9/9/2019 10:25:48 AM | A62764 |
| Cadmium | ND | 0.00058 | 0.0020 | | mg/L | 1 | 9/9/2019 10:25:48 AM | A62764 |
| Calcium | 610 | 0.60 | 10 | | mg/L | 10 | 9/9/2019 12:50:39 PM | A62764 |
| Chromium | ND | 0.0012 | 0.0060 | | mg/L | 1 | 9/9/2019 10:25:48 AM | A62764 |
| Copper | 0.0034 | 0.0023 | 0.0060 | J | mg/L | 1 | 9/9/2019 10:25:48 AM | A62764 |
| Iron | 5.3 | 0.054 | 0.20 | | mg/L | 10 | 9/18/2019 12:13:10 PM | A63017 |
| Lead | ND | 0.0048 | 0.0050 | | mg/L | 1 | 9/9/2019 10:25:48 AM | A62764 |
| Magnesium | 150 | 0.30 | 5.0 | | mg/L | 5 | 9/9/2019 10:27:31 AM | A62764 |
| Manganese | 1.7 | 0.0013 | 0.010 | | mg/L | 5 | 9/9/2019 10:27:31 AM | A62764 |
| Potassium | 3.4 | 0.11 | 1.0 | | mg/L | 1 | 9/9/2019 10:25:48 AM | A62764 |
| Selenium | ND | 0.041 | 0.050 | | mg/L | 1 | 9/9/2019 10:25:48 AM | A62764 |
| Silver | 0.0073 | 0.0013 | 0.0050 | | mg/L | 1 | 9/9/2019 10:25:48 AM | A62764 |
| Sodium | 600 | 2.4 | 10 | | mg/L | 10 | 9/9/2019 12:50:39 PM | A62764 |
| Uranium | ND | 0.062 | 0.10 | | mg/L | 1 | 9/9/2019 10:25:48 AM | A62764 |
| Zinc | 0.023 | 0.0026 | 0.020 | | mg/L | 1 | 9/9/2019 10:25:48 AM | A62764 |
| EPA 6010B: TOTAL RECOVERABLE MET | ΓALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.015 | 0.020 | | mg/L | 1 | 9/9/2019 8:29:45 AM | 47071 |
| Barium | 0.15 | 0.0012 | 0.020 | | mg/L | 1 | 9/5/2019 2:40:48 PM | 47071 |
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 2:40:48 PM | 47071 |
| Chromium | 0.0019 | 0.00086 | 0.0060 | J | mg/L | 1 | 9/5/2019 2:40:48 PM | 47071 |
| Lead | ND | 0.0035 | 0.0050 | | mg/L | 1 | 9/5/2019 2:40:48 PM | 47071 |
| Selenium | ND | 0.035 | 0.050 | | mg/L | 1 | 9/9/2019 8:29:45 AM | 47071 |
| Silver | 0.0049 | 0.00055 | 0.0050 | J | mg/L | 1 | 9/5/2019 2:40:48 PM | 47071 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Collection Date: 8/23/2019

Lab ID: 1908E78-006 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|------|-----|------|-------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JMF | |
| Benzene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Toluene | ND | 0.35 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Ethylbenzene | ND | 0.13 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Methyl tert-butyl ether (MTBE) | 0.52 | 0.46 | 1.0 | J | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,2,4-Trimethylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,3,5-Trimethylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,2-Dichloroethane (EDC) | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,2-Dibromoethane (EDB) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Naphthalene | ND | 0.28 | 2.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1-Methylnaphthalene | ND | 0.31 | 4.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 2-Methylnaphthalene | ND | 0.35 | 4.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Acetone | ND | 1.2 | 10 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Bromobenzene | ND | 0.24 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Bromodichloromethane | ND | 0.13 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Bromoform | ND | 0.29 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | |
| Bromomethane | ND | 0.27 | 3.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 2-Butanone | ND | 2.1 | 10 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Carbon disulfide | ND | 0.45 | 10 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Carbon Tetrachloride | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | |
| Chlorobenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | |
| Chloroethane | ND | 0.18 | 2.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | |
| Chloroform | ND | 0.12 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Chloromethane | ND | 0.32 | 3.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | |
| 2-Chlorotoluene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | |
| 4-Chlorotoluene | ND | 0.23 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| cis-1,2-DCE | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | |
| cis-1,3-Dichloropropene | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | |
| 1,2-Dibromo-3-chloropropane | ND | 0.33 | 2.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | |
| Dibromochloromethane | ND | 0.24 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Dibromomethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,2-Dichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,3-Dichlorobenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,4-Dichlorobenzene | ND | 0.29 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Dichlorodifluoromethane | ND | 0.26 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,1-Dichloroethane | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,1-Dichloroethene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,2-Dichloropropane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,3-Dichloropropane | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | |
| 2,2-Dichloropropane | ND | 0.23 | 2.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Collection Date: 8/23/2019

Lab ID: 1908E78-006 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|----------------------------------|--------|-------|--------|------|---------|------|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JMR | |
| 1,1-Dichloropropene | ND | 0.16 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Hexachlorobutadiene | ND | 0.31 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 2-Hexanone | ND | 1.5 | 10 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Isopropylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 4-Isopropyltoluene | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 4-Methyl-2-pentanone | ND | 0.71 | 10 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Methylene Chloride | ND | 0.15 | 3.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| n-Butylbenzene | ND | 0.23 | 3.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| n-Propylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| sec-Butylbenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Styrene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| tert-Butylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,1,1,2-Tetrachloroethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,1,2,2-Tetrachloroethane | ND | 0.55 | 2.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Tetrachloroethene (PCE) | ND | 0.15 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| trans-1,2-DCE | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| trans-1,3-Dichloropropene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,2,3-Trichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,2,4-Trichlorobenzene | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,1,1-Trichloroethane | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,1,2-Trichloroethane | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Trichloroethene (TCE) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Trichlorofluoromethane | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| 1,2,3-Trichloropropane | ND | 0.30 | 2.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Vinyl chloride | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Xylenes, Total | ND | 0.45 | 1.5 | | μg/L | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Surr: 1,2-Dichloroethane-d4 | 92.2 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Surr: 4-Bromofluorobenzene | 93.4 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Surr: Dibromofluoromethane | 100 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 4:47:43 PM | R62584 |
| Surr: Toluene-d8 | 100 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 4:47:43 PM | R62584 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: JMR | |
| Gasoline Range Organics (GRO) | ND | 0.031 | 0.050 | | mg/L | 1 | 8/30/2019 4:47:43 PM | G62584 |
| Surr: BFB | 97.2 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 4:47:43 PM | G62584 |
| CARBON DIOXIDE | | | | | | | Analyst: JRR | |
| Total Carbon Dioxide | 770 | 0 | 1.0 | Н | mg CO2 | 2/ 1 | 8/28/2019 6:58:18 PM | R62496 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | | Analyst: JRR | |
| Conductivity | 5400 | 5.0 | 5.0 | | µmhos/d | 2 1 | 8/28/2019 6:58:18 PM | R62496 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Duplicate #2

Project: 2019 Annual GW Sampling Event

Collection Date: 8/23/2019

Lab ID: 1908E78-006 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|-------|-------|------|---------|-----|----------------------|----------|
| SM2320B: ALKALINITY | | | | | | | Analyst: JRF | |
| Bicarbonate (As CaCO3) | 791.1 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/28/2019 6:58:18 PM | R62496 |
| Carbonate (As CaCO3) | ND | 2.000 | 2.000 | | mg/L Ca | a 1 | 8/28/2019 6:58:18 PM | R62496 |
| Total Alkalinity (as CaCO3) | 791.1 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/28/2019 6:58:18 PM | R62496 |
| SM2540C MOD: TOTAL DISSOLVED SOLID | os | | | | | | Analyst: KS | |
| Total Dissolved Solids | 4450 | 100 | 100 | *D | mg/L | 1 | 9/3/2019 10:47:00 AM | 47157 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Field Balnk #2

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 8:15:00 AM

 Lab ID: 1908E78-007
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

| Motor Oil Range Organics (MRO) ND 2.5 2.5 mg/L 1 8/29/2019 4:02:33 AM 470 Mercon organics (MRO) Surr: DNOP 108 0 52.7-168 %Rec 1 8/29/2019 4:02:33 AM 470 Mercon organics (MRO) EPA METHOD 300.0: ANIONS Analyst: CJS Fluoride ND 0.073 0.50 mg/L 5 9/9/2019 12:40:00 PM R6 Mercon organics (MRO) PMRO ND 1.2 2.5 mg/L 5 9/9/2019 12:40:00 PM R6 Mercon organics (MRO) PMRO ND 1.2 2.5 Mg/L 5 9/9/2019 12:40:00 PM R6 Mercon organics (MRO) PMRO ND 1.2 2.5 H Mg/L 5 9/9/2019 12:40:00 PM R6 Mercon organics (MRO) PMRO ND 1.2 2.5 H Mg/L 5 9/9/2019 12:40:00 PM R6 Mercon organics (MRO) ND 1.2 2.5 H Mg/L 5 9/9/2019 12:40:00 PM R6 Mercon organics (MRO) ND 1.2 2.5 Mg/L 5 9/9/2019 12:40:00 PM R6 Mercon organics (M | 47076 47076 47076 47076 R62781 R62781 R62781 R62781 R62781 |
|--|--|
| Motor Oil Range Organics (MRO) ND 2.5 2.5 mg/L 1 8/29/2019 4:02:33 AM 470 Mercon organics Surr: DNOP 108 0 52.7-168 %Rec 1 8/29/2019 4:02:33 AM 470 Mercon organics EPA METHOD 300.0: ANIONS Analyst: CJS Fluoride ND 0.073 0.50 mg/L 5 9/9/2019 12:40:00 PM R60 Mercon organics Chloride ND 1.2 2.5 mg/L 5 9/9/2019 12:40:00 PM R60 Mercon organics Bromide ND 0.25 0.50 mg/L 5 9/9/2019 12:40:00 PM R60 Mercon organics Phosphorus, Orthophosphate (As P) ND 1.2 2.5 H mg/L 5 9/9/2019 12:40:00 PM R60 Mercon organics Sulfate ND 1.2 2.5 mg/L 5 9/9/2019 12:40:00 PM R60 Mercon organics Nitrate+Nitrite as N 0.49 0.048 1.0 J mg/L 5 9/9/2019 7:15:05 PM R60 Mercon organics | 47076 47076 47076 R62781 R62781 R62781 R62781 R62781 |
| Surr: DNOP 108 0 52.7-168 %Rec 1 8/29/2019 4:02:33 AM 470 EPA METHOD 300.0: ANIONS Fluoride ND 0.073 0.50 mg/L 5 9/9/2019 12:40:00 PM R6 Chloride ND 1.2 2.5 mg/L 5 9/9/2019 12:40:00 PM R6 Bromide ND 0.25 0.50 mg/L 5 9/9/2019 12:40:00 PM R6 Phosphorus, Orthophosphate (As P) ND 1.2 2.5 H mg/L 5 9/9/2019 12:40:00 PM R6 Sulfate ND 1.2 2.5 mg/L 5 9/9/2019 12:40:00 PM R6 Nitrate+Nitrite as N 0.49 0.048 1.0 J mg/L 5 9/9/2019 7:15:05 PM R6 | 47076 R62781 R62781 R62781 R62781 R62781 R62781 |
| EPA METHOD 300.0: ANIONS Fluoride ND 0.073 0.50 mg/L 5 9/9/2019 12:40:00 PM R6 Chloride ND 1.2 2.5 mg/L 5 9/9/2019 12:40:00 PM R6 Bromide ND 0.25 0.50 mg/L 5 9/9/2019 12:40:00 PM R6 Phosphorus, Orthophosphate (As P) ND 1.2 2.5 H mg/L 5 9/9/2019 12:40:00 PM R6 Sulfate ND 1.2 2.5 mg/L 5 9/9/2019 12:40:00 PM R6 Nitrate+Nitrite as N 0.49 0.048 1.0 J mg/L 5 9/9/2019 7:15:05 PM R6 | R62781 R62781 R62781 R62781 R62781 R62781 |
| Fluoride ND 0.073 0.50 mg/L 5 9/9/2019 12:40:00 PM R6 Chloride ND 1.2 2.5 mg/L 5 9/9/2019 12:40:00 PM R6 Bromide ND 0.25 0.50 mg/L 5 9/9/2019 12:40:00 PM R6 Phosphorus, Orthophosphate (As P) ND 1.2 2.5 H mg/L 5 9/9/2019 12:40:00 PM R6 Sulfate ND 1.2 2.5 mg/L 5 9/9/2019 12:40:00 PM R6 Nitrate+Nitrite as N 0.49 0.048 1.0 J mg/L 5 9/9/2019 7:15:05 PM R6 | R62781 R62781 R62781 R62781 R62781 |
| Chloride ND 1.2 2.5 mg/L 5 9/9/2019 12:40:00 PM R6 Bromide ND 0.25 0.50 mg/L 5 9/9/2019 12:40:00 PM R6 Phosphorus, Orthophosphate (As P) ND 1.2 2.5 H mg/L 5 9/9/2019 12:40:00 PM R6 Sulfate ND 1.2 2.5 mg/L 5 9/9/2019 12:40:00 PM R6 Nitrate+Nitrite as N 0.49 0.048 1.0 J mg/L 5 9/9/2019 7:15:05 PM R6 | R62781 R62781 R62781 R62781 R62781 |
| Bromide ND 0.25 0.50 mg/L 5 9/9/2019 12:40:00 PM R6 Phosphorus, Orthophosphate (As P) ND 1.2 2.5 H mg/L 5 9/9/2019 12:40:00 PM R6 Sulfate ND 1.2 2.5 mg/L 5 9/9/2019 12:40:00 PM R6 Nitrate+Nitrite as N 0.49 0.048 1.0 J mg/L 5 9/9/2019 7:15:05 PM R6 | R62781 R62781 R62781 R62781 |
| Phosphorus, Orthophosphate (As P) ND 1.2 2.5 H mg/L 5 9/9/2019 12:40:00 PM R6 Sulfate ND 1.2 2.5 mg/L 5 9/9/2019 12:40:00 PM R6 Nitrate+Nitrite as N 0.49 0.048 1.0 J mg/L 5 9/9/2019 7:15:05 PM R6 | R62781 R62781 R62781 |
| Sulfate ND 1.2 2.5 mg/L 5 9/9/2019 12:40:00 PM R6 Nitrate+Nitrite as N 0.49 0.048 1.0 J mg/L 5 9/9/2019 7:15:05 PM R6 | R62781 R62781 |
| Nitrate+Nitrite as N 0.49 0.048 1.0 J mg/L 5 9/9/2019 7:15:05 PM R6 | R62781 |
| | |
| | 17428 |
| EPA METHOD 7470: MERCURY Analyst: rde | 17428 |
| Mercury 0.00011 0.000038 0.00020 J mg/L 1 9/12/2019 3:53:48 PM 47- | 7720 |
| EPA METHOD 6010B: DISSOLVED METALS Analyst: bcv | |
| Arsenic ND 0.019 0.020 mg/L 1 9/9/2019 10:29:12 AM A6 | A62764 |
| Barium ND 0.00056 0.020 mg/L 1 9/9/2019 10:29:12 AM A6 | A62764 |
| Cadmium ND 0.00058 0.0020 mg/L 1 9/9/2019 10:29:12 AM A6 | A62764 |
| Calcium ND 0.060 1.0 mg/L 1 9/9/2019 10:29:12 AM A6 | A62764 |
| Chromium ND 0.0012 0.0060 mg/L 1 9/9/2019 10:29:12 AM A6 | 462764 |
| Copper ND 0.0023 0.0060 mg/L 1 9/9/2019 10:29:12 AM A6 | A62764 |
| Iron ND 0.0054 0.020 mg/L 1 9/9/2019 10:29:12 AM A6 | 462764 |
| Lead ND 0.0048 0.0050 mg/L 1 9/9/2019 10:29:12 AM A6 | 462764 |
| Magnesium ND 0.061 1.0 mg/L 1 9/9/2019 10:29:12 AM A6 | 462764 |
| Manganese ND 0.00026 0.0020 mg/L 1 9/9/2019 10:29:12 AM A6 | 462764 |
| Potassium ND 0.11 1.0 mg/L 1 9/9/2019 10:29:12 AM A6 | 462764 |
| Selenium ND 0.041 0.050 mg/L 1 9/9/2019 10:29:12 AM A6 | 462764 |
| Silver ND 0.0013 0.0050 mg/L 1 9/9/2019 10:29:12 AM A6 | 462764 |
| Sodium ND 0.24 1.0 mg/L 1 9/9/2019 10:29:12 AM A6 | 462764 |
| Uranium ND 0.062 0.10 mg/L 1 9/9/2019 10:29:12 AM A6 | 462764 |
| Zinc 0.016 0.0026 0.020 J mg/L 1 9/9/2019 10:29:12 AM A6 | 462764 |
| EPA 6010B: TOTAL RECOVERABLE METALS Analyst: bcv | |
| Arsenic ND 0.015 0.020 mg/L 1 9/9/2019 8:31:25 AM 470 | 17071 |
| Barium ND 0.0012 0.020 mg/L 1 9/5/2019 2:42:29 PM 470 | 17071 |
| Cadmium ND 0.00055 0.0020 mg/L 1 9/5/2019 2:42:29 PM 470 | 47071 |
| Chromium ND 0.00086 0.0060 mg/L 1 9/5/2019 2:42:29 PM 470 | 47071 |
| Lead ND 0.0035 0.0050 mg/L 1 9/5/2019 2:42:29 PM 470 | 47071 |
| Selenium ND 0.035 0.050 mg/L 1 9/9/2019 8:31:25 AM 470 | 47071 |
| Silver ND 0.00055 0.0050 mg/L 1 9/5/2019 2:42:29 PM 470 | 47071 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: Field Balnk #2

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/23/2019 8:15:00 AM

Lab ID: 1908E78-007 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|------|-----|------|-------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JM I | R |
| Benzene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Toluene | ND | 0.35 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Ethylbenzene | ND | 0.13 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Methyl tert-butyl ether (MTBE) | ND | 0.46 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 1,2,4-Trimethylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 1,3,5-Trimethylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 1,2-Dichloroethane (EDC) | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 1,2-Dibromoethane (EDB) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Naphthalene | ND | 0.28 | 2.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 1-Methylnaphthalene | ND | 0.31 | 4.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 2-Methylnaphthalene | ND | 0.35 | 4.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Acetone | ND | 1.2 | 10 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Bromobenzene | ND | 0.24 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Bromodichloromethane | ND | 0.13 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Bromoform | ND | 0.29 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Bromomethane | ND | 0.27 | 3.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 2-Butanone | ND | 2.1 | 10 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Carbon disulfide | ND | 0.45 | 10 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Carbon Tetrachloride | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Chlorobenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Chloroethane | ND | 0.18 | 2.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Chloroform | ND | 0.12 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Chloromethane | ND | 0.32 | 3.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 2-Chlorotoluene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 4-Chlorotoluene | ND | 0.23 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| cis-1,2-DCE | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| cis-1,3-Dichloropropene | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 1,2-Dibromo-3-chloropropane | ND | 0.33 | 2.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Dibromochloromethane | ND | 0.24 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Dibromomethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 1,2-Dichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 1,3-Dichlorobenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 1,4-Dichlorobenzene | ND | 0.29 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| Dichlorodifluoromethane | ND | 0.26 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 1,1-Dichloroethane | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 1,1-Dichloroethene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 1,2-Dichloropropane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 1,3-Dichloropropane | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |
| 2,2-Dichloropropane | ND | 0.23 | 2.0 | | μg/L | 1 | 8/30/2019 5:16:36 PM | R62584 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Analyzed

Batch ID

DF

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: Field Balnk #2

Result

ND

ND

93.9

93.4

99.2

97.1

Project: 2019 Annual GW Sampling Event Collection Date: 8/23/2019 8:15:00 AM Lab ID: 1908E78-007 Matrix: AQUEOUS Received Date: 8/24/2019 10:00:00 AM

MDL

RL

Qual Units

EPA METHOD 8260B: VOLATILES Analyst: JMR ND 0.16 8/30/2019 5:16:36 PM 1.1-Dichloropropene 1.0 µg/L 1 R62584 Hexachlorobutadiene ND 0.31 1.0 μg/L 1 8/30/2019 5:16:36 PM R62584 ND 1.5 10 8/30/2019 5:16:36 PM R62584 2-Hexanone µg/L 1 Isopropylbenzene ND 0.19 8/30/2019 5:16:36 PM R62584 1.0 µg/L 1 ND 0.22 4-Isopropyltoluene 1.0 µg/L 1 8/30/2019 5:16:36 PM R62584 0.71 4-Methyl-2-pentanone ND 10 µg/L 1 8/30/2019 5:16:36 PM R62584 Methylene Chloride ND 0.15 3.0 1 8/30/2019 5:16:36 PM R62584 µg/L n-Butylbenzene ND 0.23 3.0 μg/L 1 8/30/2019 5:16:36 PM R62584 n-Propylbenzene 0.21 1 ND 1.0 µg/L 8/30/2019 5:16:36 PM R62584 sec-Butylbenzene ND 0.25 1.0 1 8/30/2019 5:16:36 PM R62584 µg/L Styrene ND 0.19 1.0 µg/L 1 8/30/2019 5:16:36 PM R62584 tert-Butylbenzene ND 0.21 1.0 µg/L 1 8/30/2019 5:16:36 PM R62584 1,1,1,2-Tetrachloroethane ND 0.21 1.0 µg/L 1 8/30/2019 5:16:36 PM R62584 1.1.2.2-Tetrachloroethane ND 0.55 2.0 μg/L 1 8/30/2019 5:16:36 PM R62584 Tetrachloroethene (PCE) ND 0.15 1 8/30/2019 5:16:36 PM R62584 1.0 µg/L ND 0.18 1 R62584 trans-1,2-DCE 1.0 µg/L 8/30/2019 5:16:36 PM trans-1,3-Dichloropropene ND 0.17 1.0 µg/L 1 8/30/2019 5:16:36 PM R62584 0.30 1,2,3-Trichlorobenzene ND 1.0 µg/L 1 8/30/2019 5:16:36 PM R62584 1.2.4-Trichlorobenzene ND 0.20 1.0 µg/L 1 8/30/2019 5:16:36 PM R62584 1,1,1-Trichloroethane ND 0.17 1.0 µg/L 1 8/30/2019 5:16:36 PM R62584 ND 0.22 1,1,2-Trichloroethane 1.0 µg/L 1 8/30/2019 5:16:36 PM R62584 Trichloroethene (TCE) ND 0.17 1.0 μg/L 1 8/30/2019 5:16:36 PM R62584 Trichlorofluoromethane ND 0.19 1 R62584 1.0 µg/L 8/30/2019 5:16:36 PM 1,2,3-Trichloropropane ND 0.30 8/30/2019 5:16:36 PM R62584 2.0 µg/L 1

| FΡΔ | METHOD | 8015D· | GASOLIN | FRANGE |
|-----|--------|---------|---------|----------|
| EFA | METHOD | 60 ISD. | GASOLIN | LINAINGE |

Surr: 1,2-Dichloroethane-d4

Surr: 4-Bromofluorobenzene

Surr: Dibromofluoromethane

Surr: Toluene-d8

| | | | | | | | , | |
|-------------------------------|------|-------|--------|---|--------|------|----------------------|--------|
| Gasoline Range Organics (GRO) | ND | 0.031 | 0.050 | | mg/L | 1 | 8/30/2019 5:16:36 PM | G62584 |
| Surr: BFB | 96.3 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 5:16:36 PM | G62584 |
| CARBON DIOXIDE | | | | | | | Analyst: JRR | |
| Total Carbon Dioxide | 9.7 | 0 | 1.0 | Н | mg CO2 | 2/ 1 | 8/28/2019 7:28:07 PM | R62496 |

0.18

0.45

0

0

0

0

1.0

1.5

70-130

70-130

70-130

70-130

SM2510B: SPECIFIC CONDUCTANCE

Analyst: JRR 8/28/2019 7:28:07 PM Conductivity ND 5.0 5.0 umhos/c 1 R62496

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Oualifiers:

Vinyl chloride

Xylenes, Total

Analyses

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- POL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

µg/L

μg/L

%Rec

%Rec

%Rec

%Rec

1

1

1

1

1

1

8/30/2019 5:16:36 PM

8/30/2019 5:16:36 PM

8/30/2019 5:16:36 PM

8/30/2019 5:16:36 PM

8/30/2019 5:16:36 PM

8/30/2019 5:16:36 PM

Analyst: JMR

R62584

R62584

R62584

R62584

R62584

R62584

- Value above quantitation range
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1908E78**

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: Field Balnk #2

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/23/2019 8:15:00 AM

Lab ID: 1908E78-007 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|-------------------------------------|--------|-------|-------|------|---------|----|----------------------|----------|
| SM2320B: ALKALINITY | | | | | | | Analyst: JRR | 1 |
| Bicarbonate (As CaCO3) | ND | 20.00 | 20.00 | | mg/L Ca | 1 | 8/28/2019 7:28:07 PM | R62496 |
| Carbonate (As CaCO3) | ND | 2.000 | 2.000 | | mg/L Ca | 1 | 8/28/2019 7:28:07 PM | R62496 |
| Total Alkalinity (as CaCO3) | ND | 20.00 | 20.00 | | mg/L Ca | 1 | 8/28/2019 7:28:07 PM | R62496 |
| SM2540C MOD: TOTAL DISSOLVED SOLIDS | 3 | | | | | | Analyst: KS | |
| Total Dissolved Solids | ND | 20.0 | 20.0 | | mg/L | 1 | 9/3/2019 10:47:00 AM | 47157 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-44

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 8:40:00 AM

 Lab ID: 1908E78-008
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|-----------------------------------|---------|----------|----------|------|-------|-----|----------------------|----------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | | Analyst: JM | ≣ |
| Diesel Range Organics (DRO) | ND | 0.13 | 0.40 | | mg/L | 1 | 8/29/2019 4:26:58 AM | 47076 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | 2.5 | | mg/L | 1 | 8/29/2019 4:26:58 AM | 47076 |
| Surr: DNOP | 109 | 0 | 52.7-168 | | %Rec | 1 | 8/29/2019 4:26:58 AM | 47076 |
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS | 3 |
| Fluoride | ND | 0.073 | 0.50 | | mg/L | 5 | 9/9/2019 1:29:23 PM | R62781 |
| Chloride | 50 | 1.2 | 2.5 | | mg/L | 5 | 9/9/2019 1:29:23 PM | R62781 |
| Bromide | ND | 0.25 | 0.50 | | mg/L | 5 | 9/9/2019 1:29:23 PM | R62781 |
| Phosphorus, Orthophosphate (As P) | ND | 5.0 | 10 | Н | mg/L | 20 | 9/9/2019 1:41:45 PM | R62781 |
| Sulfate | 3500 | 25 | 50 | * | mg/L | 100 | 9/10/2019 5:30:57 PM | A62815 |
| Nitrate+Nitrite as N | 0.11 | 0.048 | 1.0 | J | mg/L | 5 | 9/9/2019 7:27:26 PM | R62781 |
| EPA METHOD 7470: MERCURY | | | | | | | Analyst: rde | |
| Mercury | 0.00014 | 0.000038 | 0.00020 | J | mg/L | 1 | 9/12/2019 3:55:59 PM | 47428 |
| EPA METHOD 6010B: DISSOLVED META | ALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.019 | 0.020 | | mg/L | 1 | 9/9/2019 10:32:51 AM | A62764 |
| Barium | 0.0096 | 0.00056 | 0.020 | J | mg/L | 1 | 9/9/2019 10:32:51 AM | A62764 |
| Cadmium | ND | 0.00058 | 0.0020 | | mg/L | 1 | 9/9/2019 10:32:51 AM | A62764 |
| Calcium | 470 | 0.30 | 5.0 | | mg/L | 5 | 9/9/2019 10:34:48 AM | A62764 |
| Chromium | ND | 0.0012 | 0.0060 | | mg/L | 1 | 9/9/2019 10:32:51 AM | A62764 |
| Copper | 0.0024 | 0.0023 | 0.0060 | J | mg/L | 1 | 9/9/2019 10:32:51 AM | A62764 |
| Iron | 0.014 | 0.0054 | 0.020 | J | mg/L | 1 | 9/9/2019 10:32:51 AM | A62764 |
| Lead | ND | 0.0048 | 0.0050 | | mg/L | 1 | 9/9/2019 10:32:51 AM | A62764 |
| Magnesium | 59 | 0.061 | 1.0 | | mg/L | 1 | 9/9/2019 10:32:51 AM | A62764 |
| Manganese | 0.43 | 0.00026 | 0.0020 | | mg/L | 1 | 9/9/2019 10:32:51 AM | A62764 |
| Potassium | 7.6 | 0.11 | 1.0 | | mg/L | 1 | 9/9/2019 10:32:51 AM | A62764 |
| Selenium | ND | 0.041 | 0.050 | | mg/L | 1 | 9/9/2019 10:32:51 AM | A62764 |
| Silver | 0.0063 | 0.0013 | 0.0050 | | mg/L | 1 | 9/9/2019 10:32:51 AM | A62764 |
| Sodium | 880 | 2.4 | 10 | | mg/L | 10 | 9/9/2019 12:52:32 PM | A62764 |
| Uranium | ND | 0.062 | 0.10 | | mg/L | 1 | 9/9/2019 10:32:51 AM | A62764 |
| Zinc | 0.024 | 0.0026 | 0.020 | | mg/L | 1 | 9/9/2019 10:32:51 AM | A62764 |
| EPA 6010B: TOTAL RECOVERABLE ME | TALS | | | | | | Analyst: bcv | |
| Arsenic | 0.017 | 0.015 | 0.020 | J | mg/L | 1 | 9/9/2019 8:33:15 AM | 47071 |
| Barium | 0.082 | 0.0012 | 0.020 | | mg/L | 1 | 9/5/2019 2:44:17 PM | 47071 |
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 2:44:17 PM | 47071 |
| Chromium | 0.0072 | 0.00086 | 0.0060 | | mg/L | 1 | 9/5/2019 2:44:17 PM | 47071 |
| Lead | 0.0042 | 0.0035 | 0.0050 | J | mg/L | 1 | 9/5/2019 2:44:17 PM | 47071 |
| Selenium | ND | 0.035 | 0.050 | | mg/L | 1 | 9/9/2019 8:33:15 AM | 47071 |
| Silver | 0.0056 | 0.00055 | 0.0050 | | mg/L | 1 | 9/5/2019 2:44:17 PM | 47071 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-44

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 8:40:00 AM

 Lab ID: 1908E78-008
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|------|-----|------------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | Analyst: JMF | ₹ |
| Benzene | ND | 0.17 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Toluene | ND | 0.35 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Ethylbenzene | ND | 0.13 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Methyl tert-butyl ether (MTBE) | 1.0 | 0.46 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,2,4-Trimethylbenzene | ND | 0.21 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,3,5-Trimethylbenzene | ND | 0.19 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,2-Dichloroethane (EDC) | ND | 0.19 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,2-Dibromoethane (EDB) | ND | 0.17 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Naphthalene | ND | 0.28 | 2.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1-Methylnaphthalene | ND | 0.31 | 4.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 2-Methylnaphthalene | ND | 0.35 | 4.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Acetone | ND | 1.2 | 10 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Bromobenzene | ND | 0.24 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Bromodichloromethane | ND | 0.13 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Bromoform | ND | 0.29 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Bromomethane | ND | 0.27 | 3.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 2-Butanone | ND | 2.1 | 10 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Carbon disulfide | ND | 0.45 | 10 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Carbon Tetrachloride | ND | 0.14 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Chlorobenzene | ND | 0.19 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Chloroethane | ND | 0.18 | 2.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Chloroform | ND | 0.12 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Chloromethane | ND | 0.32 | 3.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 2-Chlorotoluene | ND | 0.25 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 4-Chlorotoluene | ND | 0.23 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| cis-1,2-DCE | ND | 0.19 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| cis-1,3-Dichloropropene | ND | 0.14 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,2-Dibromo-3-chloropropane | ND | 0.33 | 2.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Dibromochloromethane | ND | 0.24 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Dibromomethane | ND | 0.21 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,2-Dichlorobenzene | ND | 0.30 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,3-Dichlorobenzene | ND | 0.25 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,4-Dichlorobenzene | ND | 0.29 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Dichlorodifluoromethane | ND | 0.26 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,1-Dichloroethane | ND | 0.14 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,1-Dichloroethene | ND | 0.21 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,2-Dichloropropane | ND | 0.21 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,3-Dichloropropane | ND | 0.20 | 1.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 2,2-Dichloropropane | ND | 0.23 | 2.0 | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-44

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 8:40:00 AM

 Lab ID: 1908E78-008
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed H | Batch ID |
|----------------------------------|--------|-------|--------|------|--------|------|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JMR | |
| 1,1-Dichloropropene | ND | 0.16 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Hexachlorobutadiene | ND | 0.31 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 2-Hexanone | ND | 1.5 | 10 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Isopropylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 4-Isopropyltoluene | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 4-Methyl-2-pentanone | ND | 0.71 | 10 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Methylene Chloride | ND | 0.15 | 3.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| n-Butylbenzene | ND | 0.23 | 3.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| n-Propylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| sec-Butylbenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Styrene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| tert-Butylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,1,1,2-Tetrachloroethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,1,2,2-Tetrachloroethane | ND | 0.55 | 2.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Tetrachloroethene (PCE) | ND | 0.15 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| trans-1,2-DCE | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| trans-1,3-Dichloropropene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,2,3-Trichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,2,4-Trichlorobenzene | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,1,1-Trichloroethane | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,1,2-Trichloroethane | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Trichloroethene (TCE) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Trichlorofluoromethane | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| 1,2,3-Trichloropropane | ND | 0.30 | 2.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Vinyl chloride | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Xylenes, Total | ND | 0.45 | 1.5 | | μg/L | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Surr: 1,2-Dichloroethane-d4 | 95.3 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Surr: 4-Bromofluorobenzene | 97.7 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Surr: Dibromofluoromethane | 102 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 5:45:27 PM | R62584 |
| Surr: Toluene-d8 | 101 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 5:45:27 PM | R62584 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: JMR | |
| Gasoline Range Organics (GRO) | ND | 0.031 | 0.050 | | mg/L | 1 | 8/30/2019 5:45:27 PM | G62584 |
| Surr: BFB | 101 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 5:45:27 PM | G62584 |
| CARBON DIOXIDE | | | | | | | Analyst: JRR | |
| Total Carbon Dioxide | 340 | 0 | 1.0 | Н | mg CO | 2/ 1 | 8/28/2019 7:34:01 PM | R62496 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | | Analyst: JRR | |
| Conductivity | 5800 | 5.0 | 5.0 | | µmhos/ | 'c 1 | 8/28/2019 7:34:01 PM | R62496 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/23/2019 8:40:00 AM

Lab ID: 1908E78-008 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|-------|-------|------|---------|-----|----------------------|----------|
| SM2320B: ALKALINITY | | | | | | | Analyst: JRF | R |
| Bicarbonate (As CaCO3) | 371.1 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/28/2019 7:34:01 PM | R62496 |
| Carbonate (As CaCO3) | ND | 2.000 | 2.000 | | mg/L Ca | a 1 | 8/28/2019 7:34:01 PM | R6249€ |
| Total Alkalinity (as CaCO3) | 371.1 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/28/2019 7:34:01 PM | R6249€ |
| SM2540C MOD: TOTAL DISSOLVED SOLID | S | | | | | | Analyst: KS | |
| Total Dissolved Solids | 4830 | 100 | 100 | *D | mg/L | 1 | 9/3/2019 10:47:00 AM | 47157 |

Client Sample ID: MW-44

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Analyst: CJS

Hall Environmental Analysis Laboratory, Inc.

EPA METHOD 300.0: ANIONS

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-62

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 9:10:00 AM

 Lab ID:
 1908E78-009
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

Analyses Result **MDL Qual Units** DF **Date Analyzed Batch ID** RL**EPA METHOD 8015D: DIESEL RANGE** Analyst: JME Diesel Range Organics (DRO) ND 0.13 0.40 mg/L 8/29/2019 5:40:30 AM 47077 Motor Oil Range Organics (MRO) 2.5 8/29/2019 5:40:30 AM ND 2.5 mg/L 1 47077 Surr: DNOP 117 52.7-168 %Rec 8/29/2019 5:40:30 AM 47077

| Fluoride | ND | 0.073 | 0.50 | | mg/L | 5 | 9/9/2019 2:18:47 PM | R62781 |
|-----------------------------------|-------|-------|------|---|------|-----|----------------------|--------|
| Chloride | 12 | 1.2 | 2.5 | | mg/L | 5 | 9/9/2019 2:18:47 PM | R62781 |
| Bromide | ND | 0.25 | 0.50 | | mg/L | 5 | 9/9/2019 2:18:47 PM | R62781 |
| Phosphorus, Orthophosphate (As P) | ND | 5.0 | 10 | Н | mg/L | 20 | 9/9/2019 2:31:07 PM | R62781 |
| Sulfate | 4000 | 25 | 50 | * | mg/L | 100 | 9/10/2019 6:09:33 PM | A62815 |
| Nitrate+Nitrite as N | 0.076 | 0.048 | 1.0 | J | mg/L | 5 | 9/9/2019 7:39:47 PM | R62781 |
| | | | | | | | | |

| EPA METHOD 7470: MERCURY Analyst: rde | | | | | | | | |
|--|---------|----------|---------|---|------|---|----------------------|-------|
| Mercury | 0.00012 | 0.000038 | 0.00020 | J | mg/L | 1 | 9/12/2019 3:58:11 PM | 47428 |
| EPA METHOD 6010B: DISSOLVED METALS Analyst: bcv | | | | | | | | |

| Arsenic | ND | 0.019 | 0.020 | | mg/L | 1 | 9/9/2019 10:36:38 AM | B62764 |
|----------|--------|---------|--------|---|------|---|----------------------|--------|
| Barium | 0.0091 | 0.00056 | 0.020 | J | mg/L | 1 | 9/9/2019 10:36:38 AM | B62764 |
| Cadmium | ND | 0.00058 | 0.0020 | | mg/L | 1 | 9/9/2019 10:36:38 AM | B62764 |
| Calcium | 440 | 0.30 | 5.0 | | mg/L | 5 | 9/9/2019 10:38:35 AM | B62764 |
| Chromium | ND | 0.0012 | 0.0060 | | mg/L | 1 | 9/9/2019 10:36:38 AM | B62764 |
| Copper | 0.0023 | 0.0023 | 0.0060 | J | mg/L | 1 | 9/9/2019 10:36:38 AM | B62764 |
| Iron | ND | 0.0054 | 0.020 | | mg/L | 1 | 9/9/2019 10:36:38 AM | B62764 |
| Lead | ND | 0.0048 | 0.0050 | | mg/L | 1 | 9/9/2019 10:36:38 AM | B62764 |

| Magnesium | 39 | 0.061 | 1.0 | mg/L | 1 | 9/9/2019 10:36:38 AM | B62764 |
|-----------|--------|--------|--------|------|----|----------------------|--------|
| Manganese | 1.4 | 0.0013 | 0.010 | mg/L | 5 | 9/9/2019 10:38:35 AM | B62764 |
| Potassium | 8.8 | 0.11 | 1.0 | mg/L | 1 | 9/9/2019 10:36:38 AM | B62764 |
| Selenium | ND | 0.041 | 0.050 | mg/L | 1 | 9/9/2019 10:36:38 AM | B62764 |
| Silver | 0.0058 | 0.0013 | 0.0050 | mg/L | 1 | 9/9/2019 10:36:38 AM | B62764 |
| Sodium | 1400 | 4.8 | 20 | mg/L | 20 | 9/9/2019 12:54:21 PM | B62764 |
| Uranium | ND | 0.062 | 0.10 | mg/L | 1 | 9/9/2019 10:36:38 AM | B62764 |
| Zinc | 0.024 | 0.0026 | 0.020 | mg/L | 1 | 9/9/2019 10:36:38 AM | B62764 |
| | | | | | | | |

| EPA 6010B: TOTAL RECOV | EPA 6010B: TOTAL RECOVERABLE METALS | | | | | | | | | |
|-------------------------------|-------------------------------------|---------|--------|---|------|---|---------------------|-------|--|--|
| Arsenic | ND | 0.015 | 0.020 | | mg/L | 1 | 9/9/2019 8:34:59 AM | 47071 | | |
| Barium | 0.017 | 0.0012 | 0.020 | J | mg/L | 1 | 9/5/2019 2:45:55 PM | 47071 | | |
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 2:45:55 PM | 47071 | | |
| Chromium | ND | 0.00086 | 0.0060 | | mg/L | 1 | 9/5/2019 2:45:55 PM | 47071 | | |

| Danum | 0.017 | 0.0012 | 0.020 | J | mg/L | ı | 9/5/2019 2.45.55 PW | 4/0/1 |
|----------|--------|---------|--------|---|------|---|---------------------|-------|
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 2:45:55 PM | 47071 |
| Chromium | ND | 0.00086 | 0.0060 | | mg/L | 1 | 9/5/2019 2:45:55 PM | 47071 |
| Lead | ND | 0.0035 | 0.0050 | | mg/L | 1 | 9/5/2019 2:45:55 PM | 47071 |
| Selenium | ND | 0.035 | 0.050 | | mg/L | 1 | 9/9/2019 8:34:59 AM | 47071 |
| Silver | 0.0061 | 0.00055 | 0.0050 | | mg/L | 1 | 9/5/2019 2:45:55 PM | 47071 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Oualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-62

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/23/2019 9:10:00 AM

Lab ID: 1908E78-009 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|------|-----|------------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | Analyst: JM I | R |
| Benzene | ND | 0.17 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| Toluene | ND | 0.35 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| Ethylbenzene | ND | 0.13 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| Methyl tert-butyl ether (MTBE) | ND | 0.46 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| 1,2,4-Trimethylbenzene | ND | 0.21 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| 1,3,5-Trimethylbenzene | ND | 0.19 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| 1,2-Dichloroethane (EDC) | ND | 0.19 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| 1,2-Dibromoethane (EDB) | ND | 0.17 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| Naphthalene | ND | 0.28 | 2.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| 1-Methylnaphthalene | ND | 0.31 | 4.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| 2-Methylnaphthalene | ND | 0.35 | 4.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| Acetone | ND | 1.2 | 10 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| Bromobenzene | ND | 0.24 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| Bromodichloromethane | ND | 0.13 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| Bromoform | ND | 0.29 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| Bromomethane | ND | 0.27 | 3.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| 2-Butanone | ND | 2.1 | 10 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| Carbon disulfide | ND | 0.45 | 10 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| Carbon Tetrachloride | ND | 0.14 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| Chlorobenzene | ND | 0.19 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| Chloroethane | ND | 0.18 | 2.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| Chloroform | ND | 0.12 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| Chloromethane | ND | 0.32 | 3.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| 2-Chlorotoluene | ND | 0.25 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| 4-Chlorotoluene | ND | 0.23 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| cis-1,2-DCE | ND | 0.19 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| cis-1,3-Dichloropropene | ND | 0.14 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| 1,2-Dibromo-3-chloropropane | ND | 0.33 | 2.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| Dibromochloromethane | ND | 0.24 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| Dibromomethane | ND | 0.21 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| 1,2-Dichlorobenzene | ND | 0.30 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| 1,3-Dichlorobenzene | ND | 0.25 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| 1,4-Dichlorobenzene | ND | 0.29 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| Dichlorodifluoromethane | ND | 0.26 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| 1,1-Dichloroethane | ND | 0.14 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| 1,1-Dichloroethene | ND | 0.21 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | R62584 |
| 1,2-Dichloropropane | ND | 0.21 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| 1,3-Dichloropropane | ND | 0.20 | 1.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |
| 2,2-Dichloropropane | ND | 0.23 | 2.0 | μg/L | 1 | 8/30/2019 6:14:18 PM | 1 R62584 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Received Date: 8/24/2019 10:00:00 AM

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-62

Project: 2019 Annual GW Sampling Event Collection Date: 8/23/2019 9:10:00 AM Matrix: AQUEOUS

Result DF **Date Analyzed Batch ID Analyses MDL** RL**Qual Units EPA METHOD 8260B: VOLATILES** Analyst: JMR ND 0.16 8/30/2019 6:14:18 PM 1.1-Dichloropropene 1.0 µg/L 1 R62584 Hexachlorobutadiene ND 0.31 1.0 μg/L 1 8/30/2019 6:14:18 PM R62584 ND 1.5 10 8/30/2019 6:14:18 PM R62584 2-Hexanone µg/L 1 ND 0.19 8/30/2019 6:14:18 PM R62584 Isopropylbenzene 1.0 µg/L 1 ND 0.22 4-Isopropyltoluene 1.0 µg/L 1 8/30/2019 6:14:18 PM R62584 0.71 4-Methyl-2-pentanone ND 10 ua/L 1 8/30/2019 6:14:18 PM R62584 Methylene Chloride ND 0.15 3.0 1 8/30/2019 6:14:18 PM R62584 µg/L n-Butvlbenzene ND 0.23 3.0 μg/L 1 8/30/2019 6:14:18 PM R62584 n-Propylbenzene 0.21 1 ND 1.0 µg/L 8/30/2019 6:14:18 PM R62584 sec-Butylbenzene ND 0.25 1.0 1 8/30/2019 6:14:18 PM R62584 µg/L Styrene ND 0.19 1.0 µg/L 1 8/30/2019 6:14:18 PM R62584 tert-Butvlbenzene ND 0.21 1.0 µg/L 1 8/30/2019 6:14:18 PM R62584 1.1.1.2-Tetrachloroethane ND 0.21 1.0 µg/L 1 8/30/2019 6:14:18 PM R62584 1.1.2.2-Tetrachloroethane ND 0.55 2.0 μg/L 1 8/30/2019 6:14:18 PM R62584 Tetrachloroethene (PCE) ND 0.15 1 8/30/2019 6:14:18 PM R62584 1.0 µg/L ND 0.18 1 R62584 trans-1,2-DCE 1.0 µg/L 8/30/2019 6:14:18 PM trans-1,3-Dichloropropene ND 0.17 1.0 µg/L 1 8/30/2019 6:14:18 PM R62584 ND 0.30 1,2,3-Trichlorobenzene 1.0 µg/L 1 8/30/2019 6:14:18 PM R62584 1.2.4-Trichlorobenzene ND 0.20 1.0 µg/L 1 8/30/2019 6:14:18 PM R62584 1,1,1-Trichloroethane ND 0.17 1.0 µg/L 1 8/30/2019 6:14:18 PM R62584 ND 0.22 1,1,2-Trichloroethane 1.0 µg/L 1 8/30/2019 6:14:18 PM R62584 Trichloroethene (TCE) ND 0.17 1.0 μg/L 1 8/30/2019 6:14:18 PM R62584 Trichlorofluoromethane ND 0.19 1 R62584 1.0 µg/L 8/30/2019 6:14:18 PM 1,2,3-Trichloropropane ND 0.30 8/30/2019 6:14:18 PM R62584 2.0 µg/L 1 0.18 ND Vinyl chloride 1.0 µg/L 1 8/30/2019 6:14:18 PM R62584 Xylenes, Total ND 0.45 1.5 µg/L 1 8/30/2019 6:14:18 PM R62584 Surr: 1,2-Dichloroethane-d4 0 70-130 %Rec 1 R62584 94.2 8/30/2019 6:14:18 PM Surr: 4-Bromofluorobenzene 96.6 0 70-130 %Rec 1 8/30/2019 6:14:18 PM R62584 Surr: Dibromofluoromethane 0 1 R62584 100 70-130 %Rec 8/30/2019 6:14:18 PM Surr: Toluene-d8 98.4 0 70-130 %Rec 1 8/30/2019 6:14:18 PM R62584 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JMR Gasoline Range Organics (GRO) 0.031 8/30/2019 6:14:18 PM ND 0.050 mg/L G62584 1 Surr: BFB 99.5 0 70-130 %Rec 1 8/30/2019 6:14:18 PM G62584 **CARBON DIOXIDE** Analyst: JRR **Total Carbon Dioxide** 590 0 1.0 Н mg CO2/ 1 8/28/2019 7:50:23 PM R62496 **SM2510B: SPECIFIC CONDUCTANCE** Analyst: JRR 8/28/2019 7:50:23 PM Conductivity 7200 5.0 5.0 µmhos/c 1 R62496

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Oualifiers:

Lab ID:

1908E78-009

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-62

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/23/2019 9:10:00 AM

Lab ID: 1908E78-009 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|-------|-------|------|---------|----|----------------------|----------|
| SM2320B: ALKALINITY | | | | | | | Analyst: JRR | |
| Bicarbonate (As CaCO3) | 630.2 | 20.00 | 20.00 | | mg/L Ca | 1 | 8/28/2019 7:50:23 PM | R62496 |
| Carbonate (As CaCO3) | ND | 2.000 | 2.000 | | mg/L Ca | 1 | 8/28/2019 7:50:23 PM | R62496 |
| Total Alkalinity (as CaCO3) | 630.2 | 20.00 | 20.00 | | mg/L Ca | 1 | 8/28/2019 7:50:23 PM | R62496 |
| SM2540C MOD: TOTAL DISSOLVED SOLIE | os | | | | | | Analyst: KS | |
| Total Dissolved Solids | 6110 | 20.0 | 20.0 | * | mg/L | 1 | 9/3/2019 10:47:00 AM | 47157 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Trip Blank

Project: 2019 Annual GW Sampling Event Collection Date:

Lab ID: 1908E78-010 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|------|-----|------|-------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JMF | ₹ |
| Benzene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Toluene | ND | 0.35 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Ethylbenzene | ND | 0.13 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Methyl tert-butyl ether (MTBE) | ND | 0.46 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,2,4-Trimethylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,3,5-Trimethylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,2-Dichloroethane (EDC) | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,2-Dibromoethane (EDB) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Naphthalene | ND | 0.28 | 2.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1-Methylnaphthalene | ND | 0.31 | 4.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 2-Methylnaphthalene | ND | 0.35 | 4.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Acetone | ND | 1.2 | 10 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Bromobenzene | ND | 0.24 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Bromodichloromethane | ND | 0.13 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Bromoform | ND | 0.29 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Bromomethane | ND | 0.27 | 3.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 2-Butanone | ND | 2.1 | 10 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Carbon disulfide | ND | 0.45 | 10 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Carbon Tetrachloride | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Chlorobenzene | 0.48 | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Chloroethane | ND | 0.18 | 2.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Chloroform | ND | 0.12 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Chloromethane | ND | 0.32 | 3.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 2-Chlorotoluene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 4-Chlorotoluene | ND | 0.23 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| cis-1,2-DCE | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| cis-1,3-Dichloropropene | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,2-Dibromo-3-chloropropane | ND | 0.33 | 2.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Dibromochloromethane | ND | 0.24 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Dibromomethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,2-Dichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,3-Dichlorobenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,4-Dichlorobenzene | ND | 0.29 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Dichlorodifluoromethane | ND | 0.26 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,1-Dichloroethane | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,1-Dichloroethene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,2-Dichloropropane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,3-Dichloropropane | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 2,2-Dichloropropane | ND | 0.23 | 2.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Trip Blank

Project: 2019 Annual GW Sampling Event Collection Date:

Lab ID: 1908E78-010 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|----------------------------------|--------|-------|--------|------|-------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JMF | ₹ |
| 1,1-Dichloropropene | ND | 0.16 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Hexachlorobutadiene | ND | 0.31 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 2-Hexanone | ND | 1.5 | 10 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Isopropylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 4-Isopropyltoluene | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 4-Methyl-2-pentanone | ND | 0.71 | 10 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Methylene Chloride | 0.19 | 0.15 | 3.0 | J | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| n-Butylbenzene | ND | 0.23 | 3.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| n-Propylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| sec-Butylbenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Styrene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| tert-Butylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,1,1,2-Tetrachloroethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,1,2,2-Tetrachloroethane | ND | 0.55 | 2.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Tetrachloroethene (PCE) | ND | 0.15 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| trans-1,2-DCE | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| trans-1,3-Dichloropropene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,2,3-Trichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,2,4-Trichlorobenzene | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,1,1-Trichloroethane | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,1,2-Trichloroethane | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Trichloroethene (TCE) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Trichlorofluoromethane | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| 1,2,3-Trichloropropane | ND | 0.30 | 2.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Vinyl chloride | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Xylenes, Total | ND | 0.45 | 1.5 | | μg/L | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Surr: 1,2-Dichloroethane-d4 | 96.6 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Surr: 4-Bromofluorobenzene | 95.7 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Surr: Dibromofluoromethane | 101 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 6:43:12 PM | R62584 |
| Surr: Toluene-d8 | 98.5 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 6:43:12 PM | R62584 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: JMF | ₹ |
| Gasoline Range Organics (GRO) | ND | 0.031 | 0.050 | | mg/L | 1 | 8/30/2019 6:43:12 PM | G62584 |
| Surr: BFB | 99.4 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 6:43:12 PM | G62584 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-31

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 9:40:00 AM

 Lab ID: 1908E78-011
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|-----------------------------------|----------|----------|----------|------|-------|----|----------------------|----------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | | Analyst: JME | |
| Diesel Range Organics (DRO) | 1.1 | 0.13 | 0.40 | | mg/L | 1 | 8/29/2019 6:53:42 AM | 47077 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | 2.5 | | mg/L | 1 | 8/29/2019 6:53:42 AM | 47077 |
| Surr: DNOP | 119 | 0 | 52.7-168 | | %Rec | 1 | 8/29/2019 6:53:42 AM | 47077 |
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS | ; |
| Fluoride | ND | 0.073 | 0.50 | | mg/L | 5 | 9/9/2019 2:43:28 PM | R62781 |
| Chloride | 130 | 5.0 | 10 | | mg/L | 20 | 9/9/2019 2:55:49 PM | R62781 |
| Bromide | 2.9 | 0.25 | 0.50 | | mg/L | 5 | 9/9/2019 2:43:28 PM | R62781 |
| Phosphorus, Orthophosphate (As P) | ND | 1.2 | 2.5 | Н | mg/L | 5 | 9/9/2019 2:43:28 PM | R62781 |
| Sulfate | 79 | 1.2 | 2.5 | | mg/L | 5 | 9/9/2019 2:43:28 PM | R62781 |
| Nitrate+Nitrite as N | 0.13 | 0.048 | 1.0 | J | mg/L | 5 | 9/9/2019 7:52:08 PM | R62781 |
| EPA METHOD 7470: MERCURY | | | | | | | Analyst: rde | |
| Mercury | 0.000082 | 0.000038 | 0.00020 | J | mg/L | 1 | 9/12/2019 4:00:23 PM | 47428 |
| EPA METHOD 6010B: DISSOLVED ME | TALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.019 | 0.020 | | mg/L | 1 | 9/9/2019 10:45:59 AM | B62764 |
| Barium | 0.87 | 0.00056 | 0.020 | | mg/L | 1 | 9/9/2019 10:45:59 AM | B62764 |
| Cadmium | ND | 0.00058 | 0.0020 | | mg/L | 1 | 9/9/2019 10:45:59 AM | B62764 |
| Calcium | 110 | 0.30 | 5.0 | | mg/L | 5 | 9/9/2019 10:47:53 AM | B62764 |
| Chromium | ND | 0.0012 | 0.0060 | | mg/L | 1 | 9/9/2019 10:45:59 AM | B62764 |
| Copper | ND | 0.0023 | 0.0060 | | mg/L | 1 | 9/9/2019 10:45:59 AM | B62764 |
| Iron | 0.035 | 0.0054 | 0.020 | | mg/L | 1 | 9/9/2019 10:45:59 AM | B62764 |
| Lead | ND | 0.0048 | 0.0050 | | mg/L | 1 | 9/9/2019 10:45:59 AM | B62764 |
| Magnesium | 37 | 0.061 | 1.0 | | mg/L | 1 | 9/9/2019 10:45:59 AM | B62764 |
| Manganese | 0.63 | 0.00026 | 0.0020 | | mg/L | 1 | 9/9/2019 10:45:59 AM | B62764 |
| Potassium | 3.8 | 0.11 | 1.0 | | mg/L | 1 | 9/9/2019 10:45:59 AM | B62764 |
| Selenium | ND | 0.041 | 0.050 | | mg/L | 1 | 9/9/2019 10:45:59 AM | B62764 |
| Silver | 0.0016 | 0.0013 | 0.0050 | J | mg/L | 1 | 9/9/2019 10:45:59 AM | B62764 |
| Sodium | 480 | 1.2 | 5.0 | | mg/L | 5 | 9/9/2019 10:47:53 AM | B62764 |
| Uranium | ND | 0.062 | 0.10 | | mg/L | 1 | 9/9/2019 10:45:59 AM | B62764 |
| Zinc | 0.011 | 0.0026 | 0.020 | J | mg/L | 1 | 9/9/2019 10:45:59 AM | B62764 |
| EPA 6010B: TOTAL RECOVERABLE N | IETALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.015 | 0.020 | | mg/L | 1 | 9/9/2019 8:36:53 AM | 47071 |
| Barium | 0.92 | 0.0012 | 0.020 | | mg/L | 1 | 9/5/2019 2:57:08 PM | 47071 |
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 2:57:08 PM | 47071 |
| Chromium | ND | 0.00086 | 0.0060 | | mg/L | 1 | 9/5/2019 2:57:08 PM | 47071 |
| Lead | ND | 0.0035 | 0.0050 | | mg/L | 1 | 9/5/2019 2:57:08 PM | 47071 |
| Selenium | ND | 0.035 | 0.050 | | mg/L | 1 | 9/9/2019 8:36:53 AM | 47071 |
| Silver | 0.0020 | 0.00055 | 0.0050 | J | mg/L | 1 | 9/5/2019 2:57:08 PM | 47071 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-31

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 9:40:00 AM

 Lab ID:
 1908E78-011
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

Result **MDL** DF **Date Analyzed Batch ID Analyses** RL**Qual Units EPA METHOD 8260B: VOLATILES** Analyst: JMR 20 1100 20 9/3/2019 12:40:54 PM Benzene 3.3 µg/L W62589 Toluene 390 7.0 20 μg/L 20 9/3/2019 12:40:54 PM W62589 Ethylbenzene 710 2.6 20 20 9/3/2019 12:40:54 PM W6258 µg/L Methyl tert-butyl ether (MTBE) 0.46 1.0 J 8/30/2019 7:12:01 PM R62584 0.51 µg/L 1 1,2,4-Trimethylbenzene 20 20 W62589 330 4.3 µg/L 9/3/2019 12:40:54 PM 1.3.5-Trimethylbenzene 0.19 33 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 1,2-Dichloroethane (EDC) ND 0.19 µg/L 1 8/30/2019 7:12:01 PM R62584 1.0 1,2-Dibromoethane (EDB) ND 0.17 1.0 μg/L 1 8/30/2019 7:12:01 PM R62584 160 5.5 Naphthalene 40 µg/L 20 9/3/2019 12:40:54 PM W62589 1-Methylnaphthalene 78 0.31 4.0 8/30/2019 7:12:01 PM R62584 µg/L 1 74 0.35 2-Methylnaphthalene 4.0 µg/L 1 8/30/2019 7:12:01 PM R62584 Acetone ND 1.2 10 µg/L 1 8/30/2019 7:12:01 PM R62584 Bromobenzene ND 0.24 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 Bromodichloromethane ND 0.13 1.0 μg/L 1 8/30/2019 7:12:01 PM R62584 ND 0.29 1 8/30/2019 7:12:01 PM R62584 Bromoform 1.0 µg/L ND 0.27 3.0 1 R62584 Bromomethane µg/L 8/30/2019 7:12:01 PM 2-Butanone ND 2.1 10 µg/L 1 8/30/2019 7:12:01 PM R62584 ND R62584 Carbon disulfide 0.45 10 µg/L 1 8/30/2019 7:12:01 PM Carbon Tetrachloride ND 0.14 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 Chlorobenzene ND 0.19 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 Chloroethane ND 0.18 2.0 1 µg/L 8/30/2019 7:12:01 PM R62584 Chloroform ND 0.12 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 Chloromethane ND 0.32 3.0 1 R62584 µg/L 8/30/2019 7:12:01 PM 2-Chlorotoluene ND 0.25 8/30/2019 7:12:01 PM R62584 1.0 µg/L 1 ND 0.23 R62584 4-Chlorotoluene 1.0 µg/L 1 8/30/2019 7:12:01 PM cis-1,2-DCE ND 0.19 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 ND 0.14 μg/L 1 8/30/2019 7:12:01 PM R62584 cis-1,3-Dichloropropene 1.0 1,2-Dibromo-3-chloropropane ND 0.33 2.0 µg/L 1 8/30/2019 7:12:01 PM R62584 ND 0.24 1 Dibromochloromethane 1.0 µg/L 8/30/2019 7:12:01 PM R62584 Dibromomethane ND 0.21 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 1,2-Dichlorobenzene ND 0.30 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 1,3-Dichlorobenzene ND 0.25 1.0 μg/L 1 8/30/2019 7:12:01 PM R62584 1,4-Dichlorobenzene ND 0.29 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 ND Dichlorodifluoromethane 0.26 1.0 μg/L 1 8/30/2019 7:12:01 PM R62584 1,1-Dichloroethane ND 0.14 1 R62584 1.0 µg/L 8/30/2019 7:12:01 PM 1,1-Dichloroethene ND 0.21 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 1 1,2-Dichloropropane ND 0.21 1.0 µg/L 8/30/2019 7:12:01 PM R62584 1,3-Dichloropropane ND 0.20 1 8/30/2019 7:12:01 PM R62584 1.0 µg/L 2,2-Dichloropropane ND 0.23 2.0 μg/L 8/30/2019 7:12:01 PM R62584

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Analyzed

DF

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-31

Result

Project: 2019 Annual GW Sampling Event Collection Date: 8/23/2019 9:40:00 AM Lab ID: 1908E78-011 Matrix: AQUEOUS Received Date: 8/24/2019 10:00:00 AM

MDL

RL

Batch ID Qual Units EPA METHOD 8260B: VOLATILES Analyst: JMR ND 0.16 8/30/2019 7:12:01 PM 1.1-Dichloropropene 1.0 µg/L 1 R62584 Hexachlorobutadiene ND 0.31 1.0 μg/L 1 8/30/2019 7:12:01 PM R62584 ND 1.5 10 8/30/2019 7:12:01 PM R62584 2-Hexanone µg/L 1 55 0.19 8/30/2019 7:12:01 PM R62584 Isopropylbenzene 1.0 µg/L 1 0.22 4-Isopropyltoluene 2.6 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 0.71 4-Methyl-2-pentanone ND 10 ua/L 1 8/30/2019 7:12:01 PM R62584 Methylene Chloride ND 0.15 3.0 1 8/30/2019 7:12:01 PM R62584 µg/L n-Butvlbenzene ND 0.23 3.0 μg/L 1 8/30/2019 7:12:01 PM R62584 n-Propylbenzene 4.3 190 20 µg/L 20 9/3/2019 12:40:54 PM W62589 sec-Butylbenzene 35 0.25 1.0 8/30/2019 7:12:01 PM R62584 µg/L 1 Styrene 0.27 0.19 1.0 J µg/L 1 8/30/2019 7:12:01 PM R62584 8/30/2019 7:12:01 PM tert-Butvlbenzene 2.4 0.21 1.0 µg/L 1 R62584 1.1.1.2-Tetrachloroethane ND 0.21 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 1.1.2.2-Tetrachloroethane ND 0.55 2.0 μg/L 1 8/30/2019 7:12:01 PM R62584 Tetrachloroethene (PCE) ND 0.15 1 8/30/2019 7:12:01 PM R62584 1.0 µg/L ND 0.18 1 R62584 trans-1,2-DCE 1.0 µg/L 8/30/2019 7:12:01 PM trans-1,3-Dichloropropene ND 0.17 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 ND 0.30 R62584 1,2,3-Trichlorobenzene 1.0 µg/L 1 8/30/2019 7:12:01 PM 1.2.4-Trichlorobenzene ND 0.20 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 1,1,1-Trichloroethane ND 0.17 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 ND 0.22 1,1,2-Trichloroethane 1.0 µg/L 1 8/30/2019 7:12:01 PM R62584 Trichloroethene (TCE) ND 0.17 1.0 μg/L 1 8/30/2019 7:12:01 PM R62584 Trichlorofluoromethane ND 0.19 1.0 1 R62584 µg/L 8/30/2019 7:12:01 PM 1,2,3-Trichloropropane ND 0.30 2.0 8/30/2019 7:12:01 PM R62584 µg/L 1 ND 0.18 R62584 Vinyl chloride 1.0 µg/L 1 8/30/2019 7:12:01 PM Xylenes, Total 1200 9.1 30 µg/L 20 9/3/2019 12:40:54 PM W6258 Surr: 1,2-Dichloroethane-d4 0 70-130 %Rec 8/30/2019 7:12:01 PM R62584 114 1 Surr: 4-Bromofluorobenzene 156 0 70-130 %Rec 1 8/30/2019 7:12:01 PM R62584

SM2510B: SPECIFIC CONDUCTANCE Analyst: JRR 8/28/2019 8:14:40 PM Conductivity 2800 5.0 5.0 µmhos/c 1 R62496

0

0

0.61

0

0

70-130

70-130

70-130

1.0

2.5

113

99.8

11

97.5

960

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Oualifiers:

Analyses

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix

Surr: Dibromofluoromethane

Gasoline Range Organics (GRO)

EPA METHOD 8015D: GASOLINE RANGE

Surr: Toluene-d8

Surr: BFB

CARBON DIOXIDE

Total Carbon Dioxide

- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

%Rec

%Rec

mg/L

%Rec

mg CO2/ 2.5

1

1

20

20

8/30/2019 7:12:01 PM

8/30/2019 7:12:01 PM

9/3/2019 12:40:54 PM

9/3/2019 12:40:54 PM

9/4/2019 12:06:53 AM

Analyst: JMR

Analyst: JRR

- Value above quantitation range
- Analyte detected below quantitation limits
- Р Sample pH Not In Range

Н

RL Reporting Limit Page 42 of 90

R62584

R62584

G62589

G62589

R62602

Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-31

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/23/2019 9:40:00 AM

Lab ID: 1908E78-011 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|-------|-------|------|---------|-----|----------------------|----------|
| SM2320B: ALKALINITY | | | | | | | Analyst: JRF | ₹ |
| Bicarbonate (As CaCO3) | 1073 | 50.00 | 50.00 | | mg/L Ca | 2.5 | 9/4/2019 12:06:53 AM | R62602 |
| Carbonate (As CaCO3) | ND | 5.000 | 5.000 | | mg/L Ca | 2.5 | 9/4/2019 12:06:53 AM | R62602 |
| Total Alkalinity (as CaCO3) | 1073 | 50.00 | 50.00 | | mg/L Ca | 2.5 | 9/4/2019 12:06:53 AM | R62602 |
| SM2540C MOD: TOTAL DISSOLVED SOLID | S | | | | | | Analyst: KS | |
| Total Dissolved Solids | 1720 | 40.0 | 40.0 | *D | mg/L | 1 | 9/3/2019 10:47:00 AM | 47157 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-29

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 10:30:00 AM

 Lab ID: 1908E78-012
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|-----------------------------------|---------|----------|----------|------|-------|----|----------------------|----------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | | Analyst: JME | |
| Diesel Range Organics (DRO) | ND | 0.13 | 0.40 | | mg/L | 1 | 8/29/2019 7:18:12 AM | 47077 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | 2.5 | | mg/L | 1 | 8/29/2019 7:18:12 AM | 47077 |
| Surr: DNOP | 128 | 0 | 52.7-168 | | %Rec | 1 | 8/29/2019 7:18:12 AM | 47077 |
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS | ; |
| Fluoride | 0.14 | 0.073 | 0.50 | J | mg/L | 5 | 9/9/2019 3:08:10 PM | R62781 |
| Chloride | 40 | 1.2 | 2.5 | | mg/L | 5 | 9/9/2019 3:08:10 PM | R62781 |
| Bromide | 0.28 | 0.25 | 0.50 | J | mg/L | 5 | 9/9/2019 3:08:10 PM | R62781 |
| Phosphorus, Orthophosphate (As P) | ND | 1.2 | 2.5 | Н | mg/L | 5 | 9/9/2019 3:08:10 PM | R62781 |
| Sulfate | 210 | 1.2 | 2.5 | | mg/L | 5 | 9/9/2019 3:08:10 PM | R62781 |
| Nitrate+Nitrite as N | 0.92 | 0.048 | 1.0 | J | mg/L | 5 | 9/9/2019 8:04:28 PM | R62781 |
| EPA METHOD 7470: MERCURY | | | | | | | Analyst: rde | |
| Mercury | 0.00012 | 0.000038 | 0.00020 | J | mg/L | 1 | 9/12/2019 4:02:36 PM | 47428 |
| EPA METHOD 6010B: DISSOLVED META | ALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.019 | 0.020 | | mg/L | 1 | 9/9/2019 10:49:42 AM | B62764 |
| Barium | 0.014 | 0.00056 | 0.020 | J | mg/L | 1 | 9/9/2019 10:49:42 AM | B62764 |
| Cadmium | ND | 0.00058 | 0.0020 | | mg/L | 1 | 9/9/2019 10:49:42 AM | B62764 |
| Calcium | 75 | 0.060 | 1.0 | | mg/L | 1 | 9/9/2019 10:49:42 AM | B62764 |
| Chromium | ND | 0.0012 | 0.0060 | | mg/L | 1 | 9/9/2019 10:49:42 AM | B62764 |
| Copper | ND | 0.0023 | 0.0060 | | mg/L | 1 | 9/9/2019 10:49:42 AM | B62764 |
| Iron | ND | 0.0054 | 0.020 | | mg/L | 1 | 9/9/2019 10:49:42 AM | B62764 |
| Lead | ND | 0.0048 | 0.0050 | | mg/L | 1 | 9/9/2019 10:49:42 AM | B62764 |
| Magnesium | 17 | 0.061 | 1.0 | | mg/L | 1 | 9/9/2019 10:49:42 AM | B62764 |
| Manganese | 1.1 | 0.0013 | 0.010 | | mg/L | 5 | 9/9/2019 10:51:31 AM | B62764 |
| Potassium | 1.8 | 0.11 | 1.0 | | mg/L | 1 | 9/9/2019 10:49:42 AM | B62764 |
| Selenium | ND | 0.041 | 0.050 | | mg/L | 1 | 9/9/2019 10:49:42 AM | B62764 |
| Silver | ND | 0.0013 | 0.0050 | | mg/L | 1 | 9/9/2019 10:49:42 AM | B62764 |
| Sodium | 120 | 1.2 | 5.0 | | mg/L | 5 | 9/9/2019 10:51:31 AM | |
| Uranium | ND | 0.062 | 0.10 | | mg/L | 1 | 9/9/2019 10:49:42 AM | B62764 |
| Zinc | 0.016 | 0.0026 | 0.020 | J | mg/L | 1 | 9/9/2019 10:49:42 AM | B62764 |
| EPA 6010B: TOTAL RECOVERABLE ME | TALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.015 | 0.020 | | mg/L | 1 | 9/9/2019 8:38:45 AM | 47071 |
| Barium | 0.066 | 0.0012 | 0.020 | | mg/L | 1 | 9/5/2019 2:58:46 PM | 47071 |
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 2:58:46 PM | 47071 |
| Chromium | ND | 0.00086 | 0.0060 | | mg/L | 1 | 9/5/2019 2:58:46 PM | 47071 |
| Lead | 0.0072 | 0.0035 | 0.0050 | | mg/L | 1 | 9/5/2019 2:58:46 PM | 47071 |
| Selenium | ND | 0.035 | 0.050 | | mg/L | 1 | 9/9/2019 8:38:45 AM | 47071 |
| Silver | 0.00066 | 0.00055 | 0.0050 | J | mg/L | 1 | 9/5/2019 2:58:46 PM | 47071 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-29

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/23/2019 10:30:00 AM

Lab ID: 1908E78-012 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|--------------------------------|--------|------|-----|------|-------|----|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JMF | ₹ |
| Benzene | 0.36 | 0.17 | 1.0 | J | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Toluene | ND | 0.35 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Ethylbenzene | 0.18 | 0.13 | 1.0 | J | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Methyl tert-butyl ether (MTBE) | 0.51 | 0.46 | 1.0 | J | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,2,4-Trimethylbenzene | 0.38 | 0.21 | 1.0 | J | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,3,5-Trimethylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,2-Dichloroethane (EDC) | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,2-Dibromoethane (EDB) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Naphthalene | 0.30 | 0.28 | 2.0 | J | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1-Methylnaphthalene | ND | 0.31 | 4.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 2-Methylnaphthalene | ND | 0.35 | 4.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Acetone | ND | 1.2 | 10 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Bromobenzene | ND | 0.24 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Bromodichloromethane | ND | 0.13 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Bromoform | ND | 0.29 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Bromomethane | ND | 0.27 | 3.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 2-Butanone | ND | 2.1 | 10 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Carbon disulfide | ND | 0.45 | 10 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Carbon Tetrachloride | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Chlorobenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Chloroethane | ND | 0.18 | 2.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Chloroform | ND | 0.12 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Chloromethane | ND | 0.32 | 3.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 2-Chlorotoluene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 4-Chlorotoluene | ND | 0.23 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| cis-1,2-DCE | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| cis-1,3-Dichloropropene | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,2-Dibromo-3-chloropropane | ND | 0.33 | 2.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Dibromochloromethane | ND | 0.24 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Dibromomethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,2-Dichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,3-Dichlorobenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,4-Dichlorobenzene | ND | 0.29 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Dichlorodifluoromethane | ND | 0.26 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,1-Dichloroethane | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,1-Dichloroethene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,2-Dichloropropane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,3-Dichloropropane | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 2,2-Dichloropropane | ND | 0.23 | 2.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-29

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/23/2019 10:30:00 AM

Lab ID: 1908E78-012 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|----------------------------------|--------|-------|--------|------|---------|------|----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JMR | 1 |
| 1,1-Dichloropropene | ND | 0.16 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Hexachlorobutadiene | ND | 0.31 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 2-Hexanone | ND | 1.5 | 10 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Isopropylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 4-Isopropyltoluene | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 4-Methyl-2-pentanone | ND | 0.71 | 10 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Methylene Chloride | ND | 0.15 | 3.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| n-Butylbenzene | ND | 0.23 | 3.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| n-Propylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| sec-Butylbenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Styrene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| tert-Butylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,1,1,2-Tetrachloroethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,1,2,2-Tetrachloroethane | ND | 0.55 | 2.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Tetrachloroethene (PCE) | ND | 0.15 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| trans-1,2-DCE | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| trans-1,3-Dichloropropene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,2,3-Trichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,2,4-Trichlorobenzene | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,1,1-Trichloroethane | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,1,2-Trichloroethane | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Trichloroethene (TCE) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Trichlorofluoromethane | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| 1,2,3-Trichloropropane | ND | 0.30 | 2.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Vinyl chloride | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Xylenes, Total | ND | 0.45 | 1.5 | | μg/L | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Surr: 1,2-Dichloroethane-d4 | 93.4 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Surr: 4-Bromofluorobenzene | 97.1 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Surr: Dibromofluoromethane | 100 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 7:40:52 PM | R62584 |
| Surr: Toluene-d8 | 98.9 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 7:40:52 PM | R62584 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: JMR | ! |
| Gasoline Range Organics (GRO) | ND | 0.031 | 0.050 | | mg/L | 1 | 8/30/2019 7:40:52 PM | G62584 |
| Surr: BFB | 101 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 7:40:52 PM | G62584 |
| CARBON DIOXIDE | | | | | | | Analyst: JRR | |
| Total Carbon Dioxide | 250 | 0 | 1.0 | Н | mg CO2 | 2/ 1 | 8/28/2019 8:49:48 PM | R62496 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | | Analyst: JRR | |
| Conductivity | 1100 | 5.0 | 5.0 | | µmhos/d | 2 1 | 8/28/2019 8:49:48 PM | R62496 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Received Date: 8/24/2019 10:00:00 AM

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-29

Project: 2019 Annual GW Sampling Event Collection Date: 8/23/2019 10:30:00 AM Matrix: AQUEOUS

Analyses Result **MDL** RLQual Units DF **Date Analyzed Batch ID SM2320B: ALKALINITY** Analyst: JRR 8/28/2019 8:49:48 PM Bicarbonate (As CaCO3) 20.00 20.00 mg/L Ca 1 266.8 R62496 Carbonate (As CaCO3) ND 2.000 2.000 mg/L Ca 1 8/28/2019 8:49:48 PM R62496 Total Alkalinity (as CaCO3) 266.8 20.00 20.00 mg/L Ca 1 8/28/2019 8:49:48 PM R62496 Analyst: KS **SM2540C MOD: TOTAL DISSOLVED SOLIDS Total Dissolved Solids** *D 9/3/2019 10:47:00 AM 640 40.0 40.0 mg/L 1 47157

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Lab ID:

1908E78-012

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- P Sample pH Not In Range
- Reporting Limit RL

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-53

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 11:35:00 AM

 Lab ID: 1908E78-013
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|-----------------------------------|---------|----------|----------|------|-------|-----|----------------------|----------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | | Analyst: JME | |
| Diesel Range Organics (DRO) | ND | 0.13 | 0.40 | | mg/L | 1 | 8/29/2019 7:42:33 AM | 47077 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | 2.5 | | mg/L | 1 | 8/29/2019 7:42:33 AM | 47077 |
| Surr: DNOP | 121 | 0 | 52.7-168 | | %Rec | 1 | 8/29/2019 7:42:33 AM | 47077 |
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS | ; |
| Fluoride | ND | 0.073 | 0.50 | | mg/L | 5 | 9/9/2019 3:32:52 PM | R62781 |
| Chloride | 920 | 25 | 50 | * | mg/L | 100 | 9/10/2019 6:22:25 PM | A62815 |
| Bromide | 1.8 | 0.25 | 0.50 | | mg/L | 5 | 9/9/2019 3:32:52 PM | R62781 |
| Phosphorus, Orthophosphate (As P) | ND | 1.2 | 2.5 | Н | mg/L | 5 | 9/9/2019 3:32:52 PM | R62781 |
| Sulfate | 960 | 25 | 50 | * | mg/L | 100 | 9/10/2019 6:22:25 PM | A62815 |
| Nitrate+Nitrite as N | 14 | 0.048 | 1.0 | * | mg/L | 5 | 9/9/2019 8:16:49 PM | R62781 |
| EPA METHOD 7470: MERCURY | | | | | | | Analyst: rde | |
| Mercury | 0.00015 | 0.000038 | 0.00020 | J | mg/L | 1 | 9/12/2019 4:11:44 PM | 47428 |
| EPA METHOD 6010B: DISSOLVED META | LS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.019 | 0.020 | | mg/L | 1 | 9/9/2019 10:53:22 AM | B62764 |
| Barium | 0.011 | 0.00056 | 0.020 | J | mg/L | 1 | 9/9/2019 10:53:22 AM | B62764 |
| Cadmium | ND | 0.00058 | 0.0020 | | mg/L | 1 | 9/9/2019 10:53:22 AM | B62764 |
| Calcium | 330 | 0.30 | 5.0 | | mg/L | 5 | 9/9/2019 10:55:19 AM | B62764 |
| Chromium | ND | 0.0012 | 0.0060 | | mg/L | 1 | 9/9/2019 10:53:22 AM | B62764 |
| Copper | 0.0034 | 0.0023 | 0.0060 | J | mg/L | 1 | 9/9/2019 10:53:22 AM | B62764 |
| Iron | ND | 0.0054 | 0.020 | | mg/L | 1 | 9/9/2019 10:53:22 AM | B62764 |
| Lead | ND | 0.0048 | 0.0050 | | mg/L | 1 | 9/20/2019 9:23:05 AM | A63074 |
| Magnesium | 50 | 0.061 | 1.0 | | mg/L | 1 | 9/9/2019 10:53:22 AM | B62764 |
| Manganese | 0.30 | 0.00026 | 0.0020 | | mg/L | 1 | 9/9/2019 10:53:22 AM | B62764 |
| Potassium | 4.4 | 0.11 | 1.0 | | mg/L | 1 | 9/9/2019 10:53:22 AM | B62764 |
| Selenium | ND | 0.041 | 0.050 | | mg/L | 1 | 9/9/2019 10:53:22 AM | B62764 |
| Silver | 0.0043 | 0.0013 | 0.0050 | J | mg/L | 1 | 9/9/2019 10:53:22 AM | B62764 |
| Sodium | 720 | 2.4 | 10 | | mg/L | 10 | 9/9/2019 12:56:11 PM | B62764 |
| Uranium | ND | 0.062 | 0.10 | | mg/L | 1 | 9/9/2019 10:53:22 AM | B62764 |
| Zinc | 0.022 | 0.0026 | 0.020 | | mg/L | 1 | 9/9/2019 10:53:22 AM | B62764 |
| EPA 6010B: TOTAL RECOVERABLE MET | ΓALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.015 | 0.020 | | mg/L | 1 | 9/9/2019 8:40:25 AM | 47071 |
| Barium | 0.28 | 0.0012 | 0.020 | | mg/L | 1 | 9/5/2019 3:00:26 PM | 47071 |
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 3:00:26 PM | 47071 |
| Chromium | 0.0040 | 0.00086 | 0.0060 | J | mg/L | 1 | 9/5/2019 3:00:26 PM | 47071 |
| Lead | 0.0043 | 0.0035 | 0.0050 | J | mg/L | 1 | 9/5/2019 3:00:26 PM | 47071 |
| Selenium | ND | 0.035 | 0.050 | | mg/L | 1 | 9/9/2019 8:40:25 AM | 47071 |
| Silver | 0.0040 | 0.00055 | 0.0050 | J | mg/L | 1 | 9/5/2019 3:00:26 PM | 47071 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-53

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 11:35:00 AM

 Lab ID: 1908E78-013
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

Result DF **Date Analyzed Batch ID Analyses MDL** RL**Qual Units EPA METHOD 8260B: VOLATILES** Analyst: JMR ND 1.0 8/30/2019 8:09:41 PM Benzene 0.17 µg/L 1 R62584 Toluene ND 0.35 1.0 μg/L 1 8/30/2019 8:09:41 PM R62584 Ethylbenzene ND 0.13 1.0 8/30/2019 8:09:41 PM R62584 µg/L 1 μg/L Methyl tert-butyl ether (MTBE) 0.69 0.46 J 8/30/2019 8:09:41 PM R62584 1.0 1 1,2,4-Trimethylbenzene 0.21 ND 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 1.3.5-Trimethylbenzene ND 0.19 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 1,2-Dichloroethane (EDC) ND 0.19 µg/L 1 8/30/2019 8:09:41 PM R62584 1.0 1,2-Dibromoethane (EDB) ND 0.17 1.0 μg/L 1 8/30/2019 8:09:41 PM R62584 0.28 1 Naphthalene ND 2.0 µg/L 8/30/2019 8:09:41 PM R62584 1-Methylnaphthalene ND 0.31 4.0 μg/L 1 8/30/2019 8:09:41 PM R62584 0.35 2-Methylnaphthalene ND 4.0 µg/L 1 8/30/2019 8:09:41 PM R62584 Acetone ND 1.2 10 µg/L 1 8/30/2019 8:09:41 PM R62584 Bromobenzene ND 0.24 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 Bromodichloromethane ND 0.13 1.0 μg/L 1 8/30/2019 8:09:41 PM R62584 ND 0.29 1 8/30/2019 8:09:41 PM R62584 Bromoform 1.0 µg/L ND 0.27 3.0 1 R62584 Bromomethane µg/L 8/30/2019 8:09:41 PM 2-Butanone ND 2.1 10 µg/L 1 8/30/2019 8:09:41 PM R62584 ND Carbon disulfide 0.45 10 µg/L 1 8/30/2019 8:09:41 PM R62584 Carbon Tetrachloride ND 0.14 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 Chlorobenzene ND 0.19 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 Chloroethane ND 0.18 2.0 1 µg/L 8/30/2019 8:09:41 PM R62584 Chloroform ND 0.12 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 Chloromethane ND 0.32 3.0 1 R62584 µg/L 8/30/2019 8:09:41 PM 2-Chlorotoluene ND 0.25 8/30/2019 8:09:41 PM R62584 1.0 µg/L 1 ND 0.23 4-Chlorotoluene 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 cis-1,2-DCE ND 0.19 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 ND 0.14 1 8/30/2019 8:09:41 PM R62584 cis-1,3-Dichloropropene 1.0 µg/L 1,2-Dibromo-3-chloropropane ND 0.33 2.0 µg/L 1 8/30/2019 8:09:41 PM R62584 ND 0.24 1 Dibromochloromethane 1.0 µg/L 8/30/2019 8:09:41 PM R62584 Dibromomethane ND 0.21 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 1,2-Dichlorobenzene ND 0.30 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 1,3-Dichlorobenzene ND 0.25 1.0 μg/L 1 8/30/2019 8:09:41 PM R62584 1,4-Dichlorobenzene ND 0.29 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

0.26

0.14

0.21

0.21

0.20

0.23

1.0

1.0

1.0

1.0

1.0

2.0

ND

ND

ND

ND

ND

ND

Qualifiers:

Dichlorodifluoromethane

1,1-Dichloroethane

1,1-Dichloroethene

1,2-Dichloropropane

1,3-Dichloropropane

2,2-Dichloropropane

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

μg/L

µg/L

µg/L

µg/L

µg/L

μg/L

1

1

1

1

1

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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R62584

R62584

R62584

R62584

R62584

R62584

8/30/2019 8:09:41 PM

8/30/2019 8:09:41 PM

8/30/2019 8:09:41 PM

8/30/2019 8:09:41 PM

8/30/2019 8:09:41 PM

8/30/2019 8:09:41 PM

Lab Order 1908E78

Received Date: 8/24/2019 10:00:00 AM

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-53

Project: 2019 Annual GW Sampling Event Collection Date: 8/23/2019 11:35:00 AM Matrix: AQUEOUS

Result DF **Date Analyzed Batch ID Analyses MDL** RL**Qual Units EPA METHOD 8260B: VOLATILES** Analyst: JMR ND 0.16 8/30/2019 8:09:41 PM 1.1-Dichloropropene 1.0 µg/L 1 R62584 Hexachlorobutadiene ND 0.31 1.0 μg/L 1 8/30/2019 8:09:41 PM R62584 ND 1.5 10 8/30/2019 8:09:41 PM R62584 2-Hexanone µg/L 1 ND 0.19 8/30/2019 8:09:41 PM R62584 Isopropylbenzene 1.0 µg/L 1 ND 0.22 4-Isopropyltoluene 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 0.71 4-Methyl-2-pentanone ND 10 ua/L 1 8/30/2019 8:09:41 PM R62584 Methylene Chloride ND 0.15 3.0 1 8/30/2019 8:09:41 PM R62584 µg/L n-Butvlbenzene ND 0.23 3.0 μg/L 1 8/30/2019 8:09:41 PM R62584 n-Propylbenzene 0.21 1 ND 1.0 µg/L 8/30/2019 8:09:41 PM R62584 sec-Butylbenzene ND 0.25 1.0 1 8/30/2019 8:09:41 PM R62584 µg/L Styrene ND 0.19 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 tert-Butvlbenzene ND 0.21 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 1.1.1.2-Tetrachloroethane ND 0.21 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 1.1.2.2-Tetrachloroethane ND 0.55 2.0 μg/L 1 8/30/2019 8:09:41 PM R62584 Tetrachloroethene (PCE) ND 0.15 1 8/30/2019 8:09:41 PM R62584 1.0 µg/L ND 0.18 1 R62584 trans-1,2-DCE 1.0 µg/L 8/30/2019 8:09:41 PM trans-1,3-Dichloropropene ND 0.17 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 ND 0.30 1,2,3-Trichlorobenzene 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 1.2.4-Trichlorobenzene ND 0.20 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 1,1,1-Trichloroethane ND 0.17 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 ND 0.22 1,1,2-Trichloroethane 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 Trichloroethene (TCE) ND 0.17 1.0 μg/L 1 8/30/2019 8:09:41 PM R62584 Trichlorofluoromethane ND 0.19 1 R62584 1.0 µg/L 8/30/2019 8:09:41 PM 1,2,3-Trichloropropane ND 0.30 8/30/2019 8:09:41 PM R62584 2.0 µg/L 1 ND 0.18 Vinyl chloride 1.0 µg/L 1 8/30/2019 8:09:41 PM R62584 Xylenes, Total ND 0.45 1.5 µg/L 1 8/30/2019 8:09:41 PM R62584 Surr: 1,2-Dichloroethane-d4 92.4 0 70-130 %Rec 1 8/30/2019 8:09:41 PM R62584 Surr: 4-Bromofluorobenzene 95.6 0 70-130 %Rec 1 8/30/2019 8:09:41 PM R62584 Surr: Dibromofluoromethane 97.8 0 1 70-130 %Rec 8/30/2019 8:09:41 PM R62584 Surr: Toluene-d8 98.1 0 70-130 %Rec 1 8/30/2019 8:09:41 PM R62584 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JMR Gasoline Range Organics (GRO) 0.031 ND 0.050 mg/L 8/30/2019 8:09:41 PM G62584 1 Surr: BFB 98.2 0 70-130 %Rec 1 8/30/2019 8:09:41 PM G62584 **CARBON DIOXIDE** Analyst: JRR **Total Carbon Dioxide** 320 0 1.0 Н mg CO2/ 1 8/28/2019 9:02:51 PM R62496 **SM2510B: SPECIFIC CONDUCTANCE** Analyst: JRR

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

5.0

5200

Oualifiers:

Conductivity

Lab ID:

1908E78-013

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

µmhos/c 1

- Value above quantitation range
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

5.0

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R62496

8/28/2019 9:02:51 PM

Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-53

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/23/2019 11:35:00 AM

Lab ID: 1908E78-013 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|-------|-------|------|---------|-----|----------------------|----------|
| SM2320B: ALKALINITY | | | | | | | Analyst: JRF | र |
| Bicarbonate (As CaCO3) | 350.9 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/28/2019 9:02:51 PM | I R6249€ |
| Carbonate (As CaCO3) | ND | 2.000 | 2.000 | | mg/L Ca | a 1 | 8/28/2019 9:02:51 PM | I R6249€ |
| Total Alkalinity (as CaCO3) | 350.9 | 20.00 | 20.00 | | mg/L Ca | a 1 | 8/28/2019 9:02:51 PM | l R6249€ |
| SM2540C MOD: TOTAL DISSOLVED SOLID | S | | | | | | Analyst: KS | |
| Total Dissolved Solids | 3380 | 40.0 | 40.0 | *D | mg/L | 1 | 9/3/2019 10:47:00 AM | 47157 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-52

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/23/2019 12:15:00 PM

Lab ID: 1908E78-014 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|-----------------------------------|---------|----------|----------|------|-------|----|----------------------|----------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | | Analyst: JMI | |
| Diesel Range Organics (DRO) | ND | 0.13 | 0.40 | | mg/L | 1 | 8/29/2019 8:07:06 AM | 47077 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | 2.5 | | mg/L | 1 | 8/29/2019 8:07:06 AM | 47077 |
| Surr: DNOP | 124 | 0 | 52.7-168 | | %Rec | 1 | 8/29/2019 8:07:06 AM | 47077 |
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJ\$ | 3 |
| Fluoride | ND | 0.073 | 0.50 | | mg/L | 5 | 9/9/2019 3:57:34 PM | R62781 |
| Chloride | 830 | 12 | 25 | * | mg/L | 50 | 9/10/2019 6:35:17 PM | A62815 |
| Bromide | 2.3 | 0.25 | 0.50 | | mg/L | 5 | 9/9/2019 3:57:34 PM | R62781 |
| Phosphorus, Orthophosphate (As P) | ND | 1.2 | 2.5 | Н | mg/L | 5 | 9/9/2019 3:57:34 PM | R62781 |
| Sulfate | 1400 | 12 | 25 | * | mg/L | 50 | 9/10/2019 6:35:17 PM | A62815 |
| Nitrate+Nitrite as N | 39 | 0.097 | 2.0 | * | mg/L | 10 | 9/13/2019 1:17:21 PM | R62940 |
| EPA METHOD 7470: MERCURY | | | | | | | Analyst: rde | |
| Mercury | 0.00014 | 0.000038 | 0.00020 | J | mg/L | 1 | 9/12/2019 4:13:57 PM | 47428 |
| EPA METHOD 6010B: DISSOLVED META | ALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.019 | 0.020 | | mg/L | 1 | 9/9/2019 10:57:09 AM | B62764 |
| Barium | 0.012 | 0.00056 | 0.020 | J | mg/L | 1 | 9/9/2019 10:57:09 AM | B62764 |
| Cadmium | ND | 0.00058 | 0.0020 | | mg/L | 1 | 9/9/2019 10:57:09 AM | B62764 |
| Calcium | 340 | 0.30 | 5.0 | | mg/L | 5 | 9/9/2019 10:59:06 AM | B62764 |
| Chromium | ND | 0.0012 | 0.0060 | | mg/L | 1 | 9/9/2019 10:57:09 AM | B62764 |
| Copper | 0.0042 | 0.0023 | 0.0060 | J | mg/L | 1 | 9/9/2019 10:57:09 AM | B62764 |
| Iron | 0.12 | 0.0054 | 0.020 | | mg/L | 1 | 9/9/2019 10:57:09 AM | B62764 |
| Lead | ND | 0.0048 | 0.0050 | | mg/L | 1 | 9/9/2019 10:57:09 AM | B62764 |
| Magnesium | 88 | 0.061 | 1.0 | | mg/L | 1 | 9/9/2019 10:57:09 AM | B62764 |
| Manganese | 2.2 | 0.0013 | 0.010 | | mg/L | 5 | 9/9/2019 10:59:06 AM | B62764 |
| Potassium | 4.8 | 0.11 | 1.0 | | mg/L | 1 | 9/9/2019 10:57:09 AM | B62764 |
| Selenium | 0.11 | 0.041 | 0.050 | | mg/L | 1 | 9/9/2019 10:57:09 AM | B62764 |
| Silver | 0.0046 | 0.0013 | 0.0050 | J | mg/L | 1 | 9/9/2019 10:57:09 AM | B62764 |
| Sodium | 640 | 2.4 | 10 | | mg/L | 10 | 9/9/2019 12:58:01 PM | B62764 |
| Uranium | ND | 0.062 | 0.10 | | mg/L | 1 | 9/9/2019 10:57:09 AM | B62764 |
| Zinc | 0.044 | 0.0026 | 0.020 | | mg/L | 1 | 9/9/2019 10:57:09 AM | B62764 |
| EPA 6010B: TOTAL RECOVERABLE ME | TALS | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.015 | 0.020 | | mg/L | 1 | 9/9/2019 8:49:30 AM | 47071 |
| Barium | 0.18 | 0.0012 | 0.020 | | mg/L | 1 | 9/5/2019 3:02:05 PM | 47071 |
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 3:02:05 PM | 47071 |
| Chromium | ND | 0.00086 | 0.0060 | | mg/L | 1 | 9/5/2019 3:02:05 PM | 47071 |
| Lead | ND | 0.0035 | 0.0050 | | mg/L | 1 | 9/5/2019 3:02:05 PM | 47071 |
| Selenium | 0.083 | 0.035 | 0.050 | | mg/L | 1 | 9/9/2019 8:49:30 AM | 47071 |
| Silver | 0.0041 | 0.00055 | 0.0050 | J | mg/L | 1 | 9/5/2019 3:02:05 PM | 47071 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Analyzed

Batch ID

R62584

R62584

R62584

R62584

R62584

R62584

R62584

R62584

R62584

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8/30/2019 8:38:29 PM

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Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-52

Result

ND

ND

ND

ND

ND

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ND

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ND

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 12:15:00 PM

 Lab ID:
 1908E78-014
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

MDL

RL

Qual Units

EPA METHOD 8260B: VOLATILES Analyst: JMR ND 1.0 8/30/2019 8:38:29 PM Benzene 0.17 µg/L 1 R62584 Toluene ND 0.35 1.0 μg/L 1 8/30/2019 8:38:29 PM R62584 Ethylbenzene ND 0.13 1.0 8/30/2019 8:38:29 PM R62584 µg/L 1 μg/L Methyl tert-butyl ether (MTBE) 0.46 J 8/30/2019 8:38:29 PM R62584 0.57 1.0 1 1,2,4-Trimethylbenzene 0.21 ND 1.0 µg/L 1 8/30/2019 8:38:29 PM R62584 1.3.5-Trimethylbenzene ND 0.19 1.0 µg/L 1 8/30/2019 8:38:29 PM R62584 1,2-Dichloroethane (EDC) ND 0.19 µg/L 1 8/30/2019 8:38:29 PM R62584 1.0 1,2-Dibromoethane (EDB) ND 0.17 1.0 μg/L 1 8/30/2019 8:38:29 PM R62584 0.28 1 Naphthalene ND 2.0 µg/L 8/30/2019 8:38:29 PM R62584 1-Methylnaphthalene ND 0.31 4.0 μg/L 1 8/30/2019 8:38:29 PM R62584 0.35 2-Methylnaphthalene ND 4.0 µg/L 1 8/30/2019 8:38:29 PM R62584 Acetone ND 1.2 10 µg/L 1 8/30/2019 8:38:29 PM R62584 Bromobenzene ND 0.24 1.0 µg/L 1 8/30/2019 8:38:29 PM R62584 Bromodichloromethane ND 0.13 1.0 μg/L 1 8/30/2019 8:38:29 PM R62584 ND 0.29 1 8/30/2019 8:38:29 PM R62584 Bromoform 1.0 µg/L ND 0.27 3.0 1 R62584 Bromomethane µg/L 8/30/2019 8:38:29 PM 2-Butanone ND 2.1 10 µg/L 1 8/30/2019 8:38:29 PM R62584 ND Carbon disulfide 0.45 10 µg/L 1 8/30/2019 8:38:29 PM R62584 Carbon Tetrachloride ND 0.14 1.0 µg/L 1 8/30/2019 8:38:29 PM R62584 Chlorobenzene ND 0.19 1.0 µg/L 1 8/30/2019 8:38:29 PM R62584

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1.0

1.0

1.0

2.0

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Chloroethane

Chloromethane

2-Chlorotoluene

4-Chlorotoluene

cis-1,3-Dichloropropene

Dibromochloromethane

Dibromomethane

1,2-Dichlorobenzene

1,3-Dichlorobenzene

1,4-Dichlorobenzene

1,1-Dichloroethane

1,1-Dichloroethene

1,2-Dichloropropane

1,3-Dichloropropane

2,2-Dichloropropane

Dichlorodifluoromethane

1,2-Dibromo-3-chloropropane

cis-1,2-DCE

Chloroform

Analyses

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
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- RL Reporting Limit

Page 53 of 90

Lab Order 1908E78

Received Date: 8/24/2019 10:00:00 AM

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-52

Project: 2019 Annual GW Sampling Event Collection Date: 8/23/2019 12:15:00 PM Matrix: AQUEOUS

Result DF **Date Analyzed Batch ID Analyses MDL** RL**Qual Units EPA METHOD 8260B: VOLATILES** Analyst: JMR ND 0.16 8/30/2019 8:38:29 PM 1.1-Dichloropropene 1.0 µg/L 1 R62584 Hexachlorobutadiene ND 0.31 1.0 μg/L 1 8/30/2019 8:38:29 PM R62584 ND 1.5 10 8/30/2019 8:38:29 PM R62584 2-Hexanone µg/L 1 ND 0.19 8/30/2019 8:38:29 PM R62584 Isopropylbenzene 1.0 µg/L 1 ND 0.22 4-Isopropyltoluene 1.0 µg/L 1 8/30/2019 8:38:29 PM R62584 0.71 4-Methyl-2-pentanone ND 10 ua/L 1 8/30/2019 8:38:29 PM R62584 Methylene Chloride ND 0.15 3.0 1 R62584 µg/L 8/30/2019 8:38:29 PM n-Butvlbenzene ND 0.23 3.0 μg/L 1 8/30/2019 8:38:29 PM R62584 n-Propylbenzene 0.21 1 ND 1.0 µg/L 8/30/2019 8:38:29 PM R62584 sec-Butylbenzene ND 0.25 1.0 1 8/30/2019 8:38:29 PM R62584 µg/L Styrene ND 0.19 1.0 µg/L 1 8/30/2019 8:38:29 PM R62584 8/30/2019 8:38:29 PM tert-Butvlbenzene ND 0.21 1.0 µg/L 1 R62584 1.1.1.2-Tetrachloroethane ND 0.21 1.0 µg/L 1 8/30/2019 8:38:29 PM R62584 1.1.2.2-Tetrachloroethane ND 0.55 2.0 μg/L 1 8/30/2019 8:38:29 PM R62584 Tetrachloroethene (PCE) ND 0.15 1 8/30/2019 8:38:29 PM R62584 1.0 µg/L ND 0.18 1 R62584 trans-1,2-DCE 1.0 µg/L 8/30/2019 8:38:29 PM trans-1,3-Dichloropropene ND 0.17 1.0 µg/L 1 8/30/2019 8:38:29 PM R62584 ND 0.30 1,2,3-Trichlorobenzene 1.0 µg/L 1 8/30/2019 8:38:29 PM R62584 1.2.4-Trichlorobenzene ND 0.20 1.0 µg/L 1 8/30/2019 8:38:29 PM R62584 1,1,1-Trichloroethane ND 0.17 1.0 µg/L 1 8/30/2019 8:38:29 PM R62584 ND 0.22 1,1,2-Trichloroethane 1.0 µg/L 1 8/30/2019 8:38:29 PM R62584 Trichloroethene (TCE) ND 0.17 1.0 µg/L 1 8/30/2019 8:38:29 PM R62584 ND Trichlorofluoromethane 0.19 1.0 1 R62584 µg/L 8/30/2019 8:38:29 PM 1,2,3-Trichloropropane ND 0.30 8/30/2019 8:38:29 PM R62584 2.0 µg/L 1 ND 0.18 Vinyl chloride 1.0 µg/L 1 8/30/2019 8:38:29 PM R62584 Xylenes, Total ND 0.45 1.5 µg/L 1 8/30/2019 8:38:29 PM R62584 Surr: 1,2-Dichloroethane-d4 98.1 0 70-130 %Rec 1 R62584 8/30/2019 8:38:29 PM Surr: 4-Bromofluorobenzene 97.0 0 70-130 %Rec 1 8/30/2019 8:38:29 PM R62584 Surr: Dibromofluoromethane 0 1 104 70-130 %Rec 8/30/2019 8:38:29 PM R62584 Surr: Toluene-d8 98.1 0 70-130 %Rec 1 8/30/2019 8:38:29 PM R62584 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JMR Gasoline Range Organics (GRO) 0.031 ND 0.050 mg/L 8/30/2019 8:38:29 PM G62584 1 Surr: BFB 99.8 0 70-130 %Rec 1 8/30/2019 8:38:29 PM G62584 **CARBON DIOXIDE** Analyst: JRR **Total Carbon Dioxide** 190 0 1.0 Н mg CO2/ 1 8/28/2019 9:22:51 PM R62496 **SM2510B: SPECIFIC CONDUCTANCE** Analyst: JRR 8/28/2019 9:22:51 PM Conductivity 5100 5.0 5.0 µmhos/c 1 R62496

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Oualifiers:

Lab ID:

1908E78-014

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-52

2019 Annual GW Sampling Event **Collection Date:** 8/23/2019 12:15:00 PM **Project:**

Lab ID: 1908E78-014 Received Date: 8/24/2019 10:00:00 AM Matrix: AQUEOUS

| Analyses | Result | MDL | RL | Qual | Units I | DF | Date Analyzed | Batch ID |
|------------------------------|--------|-------|-------|------|-----------|----|----------------------|----------|
| SM2320B: ALKALINITY | | | | | | | Analyst: JRI | R |
| Bicarbonate (As CaCO3) | 197.6 | 20.00 | 20.00 | | mg/L Ca 1 | 1 | 8/28/2019 9:22:51 PM | 1 R62496 |
| Carbonate (As CaCO3) | ND | 2.000 | 2.000 | | mg/L Ca ′ | 1 | 8/28/2019 9:22:51 PM | N R62496 |
| Total Alkalinity (as CaCO3) | 197.6 | 20.00 | 20.00 | | mg/L Ca ′ | 1 | 8/28/2019 9:22:51 PM | 1 R62496 |
| SM2540C MOD: TOTAL DISSOLVED | SOLIDS | | | | | | Analyst: KS | |
| Total Dissolved Solids | 3550 | 40.0 | 40.0 | *D | mg/L ′ | 1 | 9/3/2019 10:47:00 AM | 47157 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit RL

Date Analyzed

Batch ID

Lab Order 1908E78

DF

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-67

Result

0.15

3.8

ND

72

ND

0.044

0.0020

Project: 2019 Annual GW Sampling Event Collection Date: 8/23/2019 1:30:00 PM Lab ID: 1908E78-015 Matrix: AQUEOUS Received Date: 8/24/2019 10:00:00 AM

MDL

RL

Qual Units

EPA METHOD 8015D: DIESEL RANGE Analyst: JME Diesel Range Organics (DRO) ND 0.13 0.40 mg/L 1 8/29/2019 8:31:27 AM 47077 Motor Oil Range Organics (MRO) ND 2.5 2.5 mg/L 1 8/29/2019 8:31:27 AM 47077 Surr: DNOP 118 0 52.7-168 %Rec 1 8/29/2019 8:31:27 AM 47077 **EPA METHOD 300.0: ANIONS** Analyst: CJS Fluoride 0.52 0.073 0.50 9/9/2019 4:46:57 PM mg/L 5 R62781 Chloride 17 1.2 2.5 mg/L 5 9/9/2019 4:46:57 PM R62781 0.25 Bromide ND 0.50 mg/L 5 9/9/2019 4:46:57 PM R62781 Phosphorus, Orthophosphate (As P) ND 2.5 5 9/9/2019 4:46:57 PM R62781 1.2 Н mg/L 20 9/9/2019 4:59:18 PM 260 5.0 10 mg/L R62781 Nitrate+Nitrite as N 0.048 9/9/2019 8:41:30 PM 3.8 1.0 mg/L R62781 **EPA METHOD 7470: MERCURY** Analyst: rde 0.00013 0.000038 0.00020 9/12/2019 4:16:12 PM Mercury J mg/L 1 47428 **EPA METHOD 6010B: DISSOLVED METALS** Analyst: bcv Arsenic ND 0.019 0.020 mg/L 1 9/9/2019 11:00:57 AM B62764 0.032 Barium 0.00056 0.020 mg/L 1 9/9/2019 11:00:57 AM B62764 Cadmium 0.00058 0.0020 ND mg/L 1 9/9/2019 11:00:57 AM B62764 Calcium 160 mg/L 5 B62764 0.30 5.0 9/9/2019 11:02:48 AM Chromium ND 0.0012 0.0060 mg/L 1 9/9/2019 11:00:57 AM B62764 ND 0.0023 Copper 0.0060 mg/L 1 9/9/2019 11:00:57 AM B62764 Iron ND 0.0054 0.020 mg/L 1 9/9/2019 11:00:57 AM B62764 Lead ND 0.0048 0.0050 mg/L 1 9/20/2019 9:28:40 AM A63074 31 0.061 1 B62764 Magnesium 1.0 mg/L 9/9/2019 11:00:57 AM

| EPA 6010B: TOTAL RECOVERABL | LE METALS | | | | | | Analyst: bcv | |
|-----------------------------|-----------|---------|--------|---|------|---|---------------------|-------|
| Arsenic | ND | 0.015 | 0.020 | | mg/L | 1 | 9/9/2019 8:51:14 AM | 47071 |
| Barium | 0.057 | 0.0012 | 0.020 | | mg/L | 1 | 9/5/2019 3:03:46 PM | 47071 |
| Cadmium | ND | 0.00055 | 0.0020 | | mg/L | 1 | 9/5/2019 3:03:46 PM | 47071 |
| Chromium | ND | 0.00086 | 0.0060 | | mg/L | 1 | 9/5/2019 3:03:46 PM | 47071 |
| Lead | 0.0045 | 0.0035 | 0.0050 | J | mg/L | 1 | 9/5/2019 3:03:46 PM | 47071 |
| Selenium | ND | 0.035 | 0.050 | | mg/L | 1 | 9/9/2019 8:51:14 AM | 47071 |
| Silver | 0.0023 | 0.00055 | 0.0050 | J | mg/L | 1 | 9/5/2019 3:03:46 PM | 47071 |
| | | | | | | | | |

0.00026

0.11

0.041

0.0013

0.24

0.062

0.0026

0.0020

0.050

0.0050

1.0

1.0

0.10

0.020

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Oualifiers:

Manganese

Potassium

Selenium

Silver

Sodium

Uranium

Zinc

Analyses

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

J

1

1

1

1

9/9/2019 11:00:57 AM

9/9/2019 11:00:57 AM

9/9/2019 11:00:57 AM

9/9/2019 11:00:57 AM

9/9/2019 11:00:57 AM

9/9/2019 11:00:57 AM

9/9/2019 11:00:57 AM

B62764

B62764

B62764

B62764

B62764

B62764

B62764

- Value above quantitation range
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-67

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 1:30:00 PM

 Lab ID:
 1908E78-015
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

Result **MDL** DF **Date Analyzed Batch ID Analyses** RL**Qual Units EPA METHOD 8260B: VOLATILES** Analyst: JMR ND 1.0 8/30/2019 9:07:18 PM Benzene 0.17 µg/L 1 R62584 Toluene ND 0.35 1.0 μg/L 1 8/30/2019 9:07:18 PM R62584 Ethylbenzene ND 0.13 1.0 1 8/30/2019 9:07:18 PM R62584 µg/L Methyl tert-butyl ether (MTBE) ND 0.46 8/30/2019 9:07:18 PM R62584 1.0 µg/L 1 1,2,4-Trimethylbenzene ND 0.21 R62584 1.0 µg/L 1 8/30/2019 9:07:18 PM 1.3.5-Trimethylbenzene ND 0.19 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 1,2-Dichloroethane (EDC) ND 0.19 1 8/30/2019 9:07:18 PM R62584 1.0 µg/L 1,2-Dibromoethane (EDB) ND 0.17 1.0 μg/L 1 8/30/2019 9:07:18 PM R62584 0.28 1 Naphthalene ND 2.0 µg/L 8/30/2019 9:07:18 PM R62584 1-Methylnaphthalene ND 0.31 4.0 μg/L 1 8/30/2019 9:07:18 PM R62584 0.35 2-Methylnaphthalene ND 4.0 µg/L 1 8/30/2019 9:07:18 PM R62584 Acetone ND 1.2 10 µg/L 1 8/30/2019 9:07:18 PM R62584 Bromobenzene ND 0.24 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 Bromodichloromethane ND 0.13 1.0 μg/L 1 8/30/2019 9:07:18 PM R62584 ND 0.29 1 8/30/2019 9:07:18 PM R62584 Bromoform 1.0 µg/L ND 0.27 3.0 1 R62584 Bromomethane µg/L 8/30/2019 9:07:18 PM 2-Butanone ND 2.1 10 µg/L 1 8/30/2019 9:07:18 PM R62584 ND R62584 Carbon disulfide 0.45 10 µg/L 1 8/30/2019 9:07:18 PM Carbon Tetrachloride ND 0.14 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 Chlorobenzene ND 0.19 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 Chloroethane ND 0.18 2.0 1 µg/L 8/30/2019 9:07:18 PM R62584 Chloroform ND 0.12 1.0 μg/L 1 8/30/2019 9:07:18 PM R62584 Chloromethane ND 0.32 3.0 1 R62584 µg/L 8/30/2019 9:07:18 PM 2-Chlorotoluene ND 0.25 1 8/30/2019 9:07:18 PM R62584 1.0 µg/L ND 0.23 4-Chlorotoluene 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 cis-1,2-DCE ND 0.19 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 ND 0.14 μg/L 1 8/30/2019 9:07:18 PM R62584 cis-1,3-Dichloropropene 1.0 1,2-Dibromo-3-chloropropane ND 0.33 2.0 µg/L 1 8/30/2019 9:07:18 PM R62584 ND 0.24 1 Dibromochloromethane 1.0 µg/L 8/30/2019 9:07:18 PM R62584 Dibromomethane ND 0.21 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 1,2-Dichlorobenzene ND 0.30 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 1,3-Dichlorobenzene ND 0.25 1.0 μg/L 1 8/30/2019 9:07:18 PM R62584 1,4-Dichlorobenzene ND 0.29 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 ND Dichlorodifluoromethane 0.26 1.0 μg/L 1 8/30/2019 9:07:18 PM R62584 1,1-Dichloroethane ND 0.14 1 8/30/2019 9:07:18 PM R62584 1.0 µg/L 1,1-Dichloroethene ND 0.21 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 1 1,2-Dichloropropane ND 0.21 1.0 µg/L 8/30/2019 9:07:18 PM R62584 1,3-Dichloropropane ND 0.20 1 8/30/2019 9:07:18 PM R62584 1.0 µg/L 2,2-Dichloropropane ND 0.23 2.0 μg/L 8/30/2019 9:07:18 PM R62584

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** MW-67

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 1:30:00 PM

 Lab ID:
 1908E78-015
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

Result DF **Date Analyzed Batch ID Analyses MDL** RL**Qual Units EPA METHOD 8260B: VOLATILES** Analyst: JMR ND 0.16 8/30/2019 9:07:18 PM 1.1-Dichloropropene 1.0 µg/L 1 R62584 Hexachlorobutadiene ND 0.31 1.0 μg/L 1 8/30/2019 9:07:18 PM R62584 ND 1.5 10 8/30/2019 9:07:18 PM R62584 2-Hexanone µg/L 1 ND 0.19 8/30/2019 9:07:18 PM R62584 Isopropylbenzene 1.0 µg/L 1 ND 0.22 4-Isopropyltoluene 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 0.71 4-Methyl-2-pentanone ND 10 ua/L 1 8/30/2019 9:07:18 PM R62584 Methylene Chloride ND 0.15 3.0 1 8/30/2019 9:07:18 PM R62584 µg/L n-Butvlbenzene ND 0.23 3.0 μg/L 1 8/30/2019 9:07:18 PM R62584 n-Propylbenzene 0.21 1 ND 1.0 µg/L 8/30/2019 9:07:18 PM R62584 sec-Butylbenzene ND 0.25 1.0 1 8/30/2019 9:07:18 PM R62584 µg/L Styrene ND 0.19 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 tert-Butvlbenzene ND 0.21 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 1.1.1.2-Tetrachloroethane ND 0.21 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 1.1.2.2-Tetrachloroethane ND 0.55 2.0 μg/L 1 8/30/2019 9:07:18 PM R62584 Tetrachloroethene (PCE) ND 0.15 1 8/30/2019 9:07:18 PM R62584 1.0 µg/L ND 0.18 1 R62584 trans-1,2-DCE 1.0 µg/L 8/30/2019 9:07:18 PM trans-1,3-Dichloropropene ND 0.17 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 ND 0.30 R62584 1,2,3-Trichlorobenzene 1.0 µg/L 1 8/30/2019 9:07:18 PM 1.2.4-Trichlorobenzene ND 0.20 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 1,1,1-Trichloroethane ND 0.17 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 ND 0.22 1,1,2-Trichloroethane 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 Trichloroethene (TCE) ND 0.17 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 Trichlorofluoromethane ND 0.19 1 R62584 1.0 µg/L 8/30/2019 9:07:18 PM 1,2,3-Trichloropropane ND 0.30 8/30/2019 9:07:18 PM R62584 2.0 µg/L 1 ND 0.18 Vinyl chloride 1.0 µg/L 1 8/30/2019 9:07:18 PM R62584 Xylenes, Total ND 0.45 1.5 µg/L 1 8/30/2019 9:07:18 PM R62584 Surr: 1,2-Dichloroethane-d4 96.1 0 70-130 %Rec 1 8/30/2019 9:07:18 PM R62584 Surr: 4-Bromofluorobenzene 99.9 0 70-130 %Rec 1 8/30/2019 9:07:18 PM R62584 Surr: Dibromofluoromethane 0 1 R62584 103 70-130 %Rec 8/30/2019 9:07:18 PM Surr: Toluene-d8 97.2 0 70-130 %Rec 1 8/30/2019 9:07:18 PM R62584 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JMR Gasoline Range Organics (GRO) 0.031 8/30/2019 9:07:18 PM ND 0.050 mg/L G62584 1 Surr: BFB 103 0 70-130 %Rec 1 8/30/2019 9:07:18 PM G62584 **CARBON DIOXIDE** Analyst: JRR **Total Carbon Dioxide** 340 0 1.0 Н mg CO2/ 1 8/28/2019 9:46:16 PM R62496 **SM2510B: SPECIFIC CONDUCTANCE** Analyst: JRR 8/28/2019 9:46:16 PM Conductivity 1200 5.0 5.0 µmhos/c 1 R62496

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1908E78**

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-67

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/23/2019 1:30:00 PM

Lab ID: 1908E78-015 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|------------------------------------|--------|-------|-------|------|---------|-----|----------------------|----------|
| SM2320B: ALKALINITY | | | | | | | Analyst: JRF | |
| Bicarbonate (As CaCO3) | 358.2 | 20.00 | 20.00 | | mg/L Ca | ı 1 | 8/28/2019 9:46:16 PM | R62496 |
| Carbonate (As CaCO3) | ND | 2.000 | 2.000 | | mg/L Ca | ı 1 | 8/28/2019 9:46:16 PM | R62496 |
| Total Alkalinity (as CaCO3) | 358.2 | 20.00 | 20.00 | | mg/L Ca | ı 1 | 8/28/2019 9:46:16 PM | R62496 |
| SM2540C MOD: TOTAL DISSOLVED SOLIE | os | | | | | | Analyst: KS | |
| Total Dissolved Solids | 842 | 20.0 | 20.0 | * | mg/L | 1 | 9/3/2019 10:47:00 AM | 47157 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-68

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 2:30:00 PM

 Lab ID:
 1908E78-016
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

Result DF **Date Analyzed Batch ID Analyses MDL** RL**Qual Units EPA METHOD 8015D: DIESEL RANGE** Analyst: JME Diesel Range Organics (DRO) ND 0.13 0.40 mg/L 1 8/29/2019 8:55:50 AM 47077 ND 2.5 Motor Oil Range Organics (MRO) 2.5 mg/L 1 8/29/2019 8:55:50 AM 47077 Surr: DNOP 119 0 52.7-168 %Rec 1 8/29/2019 8:55:50 AM 47077 **EPA METHOD 300.0: ANIONS** Analyst: CJS Fluoride 0.24 0.073 0.50 9/9/2019 5:11:38 PM J mg/L 5 R62781 Chloride 50 1.2 2.5 mg/L 5 9/9/2019 5:11:38 PM R62781 0.25 5 **Bromide** ND 0.50 mg/L 9/9/2019 5:11:38 PM R62781 Phosphorus, Orthophosphate (As P) ND 2.5 5 9/9/2019 5:11:38 PM R62781 1.2 Н mg/L 260 5.0 20 9/9/2019 5:23:58 PM R62781 Sulfate 10 mg/L Nitrate+Nitrite as N 0.048 9/9/2019 8:53:51 PM 6.8 1.0 mg/L 5 R62781 **EPA METHOD 7470: MERCURY** Analyst: rde 0.00015 0.000038 0.00020 J 9/12/2019 4:18:26 PM 47428 Mercury mg/L 1 **EPA METHOD 6010B: DISSOLVED METALS** Analyst: bcv Arsenic ND 0.019 0.020 mg/L 1 9/9/2019 11:10:01 AM B62764 0.019 Barium 0.00056 0.020 J mg/L 1 9/9/2019 11:10:01 AM B62764 Cadmium 0.00058 9/9/2019 11:10:01 AM ND 0.0020 mg/L 1 B62764 Calcium 100 mg/L 5 9/11/2019 1:15:40 PM A62841 0.30 5.0 Chromium ND 0.0012 0.0060 mg/L 1 9/9/2019 11:10:01 AM B62764 ND 0.0023 0.0060 9/9/2019 11:10:01 AM B62764 Copper mg/L 1 Iron ND 0.0054 0.020 mg/L 1 9/9/2019 11:10:01 AM B62764 ND Lead 0.0048 0.0050 mg/L 1 9/20/2019 9:30:28 AM A63074 28 0.061 1 9/9/2019 11:10:01 AM B62764 Magnesium 10 mg/L Manganese 0.00059 0.00026 0.0020 J mg/L 1 9/9/2019 11:10:01 AM B62764 Potassium 2.7 0.11 mg/L 1 9/9/2019 11:10:01 AM B62764 1.0 Selenium ND 0.041 0.050 mg/L 1 9/9/2019 11:10:01 AM B62764 Silver 0.0014 0.0013 0.0050 mg/L 9/9/2019 11:10:01 AM B62764 J 1 Sodium 5 9/9/2019 11:11:54 AM B62764 100 1.2 5.0 mg/L ND Uranium 0.062 0.10 mg/L 1 9/9/2019 11:10:01 AM B62764 1 0.010 0.0026 0.020 mg/L 9/9/2019 11:10:01 AM B62764 **EPA 6010B: TOTAL RECOVERABLE METALS** Analyst: bcv ND 0.015 0.020 9/9/2019 8:52:56 AM 47071 Arsenic mg/L 1 Barium 0.15 0.0012 0.020 mg/L 1 9/5/2019 3:05:25 PM 47071 0.00055 Cadmium ND 0.0020 mg/L 1 9/5/2019 3:05:25 PM 47071 Chromium 0.0049 0.00086 0.0060 mg/L 1 9/5/2019 3:05:25 PM 47071 1 Lead ND 0.0035 0.0050 mg/L 9/5/2019 3:05:25 PM 47071 Selenium ND 0.035 0.050 mg/L 1 9/9/2019 8:52:56 AM 47071 Silver 0.0011 0.00055 0.0050 mg/L 9/5/2019 3:05:25 PM 47071

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Oualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Received Date: 8/24/2019 10:00:00 AM

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-68

Project: 2019 Annual GW Sampling Event Collection Date: 8/23/2019 2:30:00 PM Matrix: AQUEOUS

Result DF **Date Analyzed Batch ID Analyses MDL** RL**Qual Units EPA METHOD 8260B: VOLATILES** Analyst: JMR ND 1.0 8/30/2019 11:02:40 PM R62584 Benzene 0.17 µg/L 1 Toluene ND 0.35 1.0 μg/L 1 8/30/2019 11:02:40 PM R62584 Ethylbenzene ND 0.13 1.0 8/30/2019 11:02:40 PM R62584 µg/L 1 Methyl tert-butyl ether (MTBE) 0.47 0.46 J μg/L 8/30/2019 11:02:40 PM R62584 1.0 1 1,2,4-Trimethylbenzene 0.21 R62584 ND 1.0 µg/L 1 8/30/2019 11:02:40 PM 1.3.5-Trimethylbenzene ND 0.19 1.0 µg/L 1 8/30/2019 11:02:40 PM R62584 1,2-Dichloroethane (EDC) ND 0.19 µg/L 1 8/30/2019 11:02:40 PM R62584 1.0 1,2-Dibromoethane (EDB) ND 0.17 1.0 μg/L 1 8/30/2019 11:02:40 PM R62584 0.28 1 8/30/2019 11:02:40 PM R62584 Naphthalene ND 2.0 µg/L 1-Methylnaphthalene ND 0.31 4.0 μg/L 1 8/30/2019 11:02:40 PM R62584 2-Methylnaphthalene ND 0.35 4.0 µg/L 1 8/30/2019 11:02:40 PM R62584 Acetone ND 1.2 10 µg/L 1 8/30/2019 11:02:40 PM R62584 Bromobenzene ND 0.24 1.0 µg/L 1 8/30/2019 11:02:40 PM R62584 Bromodichloromethane ND 0.13 1.0 μg/L 1 8/30/2019 11:02:40 PM R62584 ND 0.29 1 8/30/2019 11:02:40 PM R62584 Bromoform 1.0 µg/L ND 0.27 3.0 1 R62584 Bromomethane µg/L 8/30/2019 11:02:40 PM 2-Butanone ND 2.1 10 µg/L 1 8/30/2019 11:02:40 PM R62584 ND R62584 Carbon disulfide 0.45 10 µg/L 1 8/30/2019 11:02:40 PM Carbon Tetrachloride ND 0.14 1.0 µg/L 1 8/30/2019 11:02:40 PM R62584 Chlorobenzene ND 0.19 1.0 µg/L 1 8/30/2019 11:02:40 PM R62584 Chloroethane ND 0.18 2.0 1 µg/L 8/30/2019 11:02:40 PM R62584 Chloroform ND 0.12 1.0 µg/L 1 8/30/2019 11:02:40 PM R62584 Chloromethane ND 0.32 3.0 1 8/30/2019 11:02:40 PM R62584 µg/L 2-Chlorotoluene ND 0.25 8/30/2019 11:02:40 PM R62584 1.0 µg/L 1 ND 0.23 R62584 4-Chlorotoluene 1.0 µg/L 1 8/30/2019 11:02:40 PM cis-1,2-DCE ND 0.19 1.0 µg/L 1 8/30/2019 11:02:40 PM ND 0.14 1 8/30/2019 11:02:40 PM R62584 cis-1,3-Dichloropropene 1.0 µg/L 1,2-Dibromo-3-chloropropane ND 0.33 2.0 µg/L 1 8/30/2019 11:02:40 PM R62584 ND 0.24 1 R62584 Dibromochloromethane 1.0 µg/L 8/30/2019 11:02:40 PM Dibromomethane ND 0.21 1.0 µg/L 1 8/30/2019 11:02:40 PM R62584 1,2-Dichlorobenzene ND 0.30 1.0 µg/L 1 8/30/2019 11:02:40 PM R62584 1,3-Dichlorobenzene ND 0.25 1.0 μg/L 1 8/30/2019 11:02:40 PM R62584 1,4-Dichlorobenzene ND 0.29 1.0 µg/L 1 8/30/2019 11:02:40 PM R62584 ND Dichlorodifluoromethane 0.26 1.0 μg/L 1 8/30/2019 11:02:40 PM R62584 ND 0.14 1 8/30/2019 11:02:40 PM R62584 1,1-Dichloroethane 1.0 µg/L 1,1-Dichloroethene ND 0.21 1.0 µg/L 1 8/30/2019 11:02:40 PM R62584 1 1,2-Dichloropropane ND 0.21 1.0 µg/L 8/30/2019 11:02:40 PM 1,3-Dichloropropane ND 0.20 1 8/30/2019 11:02:40 PM R62584 1.0 µg/L 2,2-Dichloropropane ND 0.23 2.0 μg/L 8/30/2019 11:02:40 PM R62584

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Oualifiers:

Lab ID:

1908E78-016

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc. Client Sample ID: MW-68

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/23/2019 2:30:00 PM

Lab ID: 1908E78-016 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed | Batch ID |
|----------------------------------|--------|-------|--------|------|--------|------|-----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JMF | ₹ |
| 1,1-Dichloropropene | ND | 0.16 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| Hexachlorobutadiene | ND | 0.31 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| 2-Hexanone | ND | 1.5 | 10 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| Isopropylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| 4-Isopropyltoluene | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| 4-Methyl-2-pentanone | ND | 0.71 | 10 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| Methylene Chloride | ND | 0.15 | 3.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| n-Butylbenzene | ND | 0.23 | 3.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| n-Propylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| sec-Butylbenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| Styrene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| tert-Butylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| 1,1,1,2-Tetrachloroethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| 1,1,2,2-Tetrachloroethane | ND | 0.55 | 2.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| Tetrachloroethene (PCE) | ND | 0.15 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| trans-1,2-DCE | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| trans-1,3-Dichloropropene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| 1,2,3-Trichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| 1,2,4-Trichlorobenzene | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| 1,1,1-Trichloroethane | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| 1,1,2-Trichloroethane | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| Trichloroethene (TCE) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| Trichlorofluoromethane | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| 1,2,3-Trichloropropane | ND | 0.30 | 2.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| Vinyl chloride | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| Xylenes, Total | ND | 0.45 | 1.5 | | μg/L | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| Surr: 1,2-Dichloroethane-d4 | 93.6 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| Surr: 4-Bromofluorobenzene | 97.7 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| Surr: Dibromofluoromethane | 100 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| Surr: Toluene-d8 | 97.0 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 11:02:40 PM | M R62584 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: JMF | र |
| Gasoline Range Organics (GRO) | ND | 0.031 | 0.050 | | mg/L | 1 | 8/30/2019 11:02:40 PM | M G6258₄ |
| Surr: BFB | 98.1 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 11:02:40 PM | M G6258∠ |
| CARBON DIOXIDE | | | | | | | Analyst: JRR | t |
| Total Carbon Dioxide | 220 | 0 | 1.0 | Н | mg CO2 | 2/ 1 | 8/28/2019 10:02:22 PM | M R62496 |
| SM2510B: SPECIFIC CONDUCTANCE | | | | | | | Analyst: JRR | 2 |
| Conductivity | 1200 | 5.0 | 5.0 | | µmhos/ | c 1 | 8/28/2019 10:02:22 PM | M R62496 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

9/3/2019 10:47:00 AM

47157

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: MW-68

802

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/23/2019 2:30:00 PM

 Lab ID:
 1908E78-016
 Matrix: AQUEOUS
 Received Date: 8/24/2019 10:00:00 AM

Analyses Result **MDL** RL**Qual Units** DF **Date Analyzed Batch ID SM2320B: ALKALINITY** Analyst: JRR Bicarbonate (As CaCO3) 238.3 20.00 20.00 mg/L Ca 1 8/28/2019 10:02:22 PM R62496 Carbonate (As CaCO3) ND 2.000 2.000 mg/L Ca 1 8/28/2019 10:02:22 PM R62496 Total Alkalinity (as CaCO3) 238.3 20.00 20.00 mg/L Ca 1 8/28/2019 10:02:22 PM R62496 **SM2540C MOD: TOTAL DISSOLVED SOLIDS** Analyst: KS

40.0

*D

mg/L

1

40.0

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Total Dissolved Solids

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Trip Blank

Project: 2019 Annual GW Sampling Event Collection Date:

Lab ID: 1908E78-017 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed I | Batch ID |
|--------------------------------|--------|------|-----|------|-------|----|-----------------------|----------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JMR | |
| Benzene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Toluene | ND | 0.35 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Ethylbenzene | ND | 0.13 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Methyl tert-butyl ether (MTBE) | ND | 0.46 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,2,4-Trimethylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,3,5-Trimethylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,2-Dichloroethane (EDC) | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,2-Dibromoethane (EDB) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Naphthalene | ND | 0.28 | 2.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1-Methylnaphthalene | ND | 0.31 | 4.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 2-Methylnaphthalene | ND | 0.35 | 4.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Acetone | ND | 1.2 | 10 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Bromobenzene | ND | 0.24 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Bromodichloromethane | ND | 0.13 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Bromoform | ND | 0.29 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Bromomethane | ND | 0.27 | 3.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 2-Butanone | ND | 2.1 | 10 | | μg/L | 1 | 8/30/2019 11:31:28 PM | |
| Carbon disulfide | ND | 0.45 | 10 | | μg/L | 1 | 8/30/2019 11:31:28 PM | |
| Carbon Tetrachloride | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Chlorobenzene | 0.48 | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Chloroethane | ND | 0.18 | 2.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Chloroform | ND | 0.12 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Chloromethane | ND | 0.32 | 3.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 2-Chlorotoluene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 4-Chlorotoluene | ND | 0.23 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| cis-1,2-DCE | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| cis-1,3-Dichloropropene | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,2-Dibromo-3-chloropropane | ND | 0.33 | 2.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Dibromochloromethane | ND | 0.24 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Dibromomethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,2-Dichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,3-Dichlorobenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,4-Dichlorobenzene | ND | 0.29 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Dichlorodifluoromethane | ND | 0.26 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,1-Dichloroethane | ND | 0.14 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,1-Dichloroethene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,2-Dichloropropane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,3-Dichloropropane | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 2,2-Dichloropropane | ND | 0.23 | 2.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908E78

Date Reported: 10/1/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Trip Blank

Project: 2019 Annual GW Sampling Event Collection Date:

Lab ID: 1908E78-017 **Matrix:** AQUEOUS **Received Date:** 8/24/2019 10:00:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed I | Batch ID |
|----------------------------------|--------|-------|--------|------|-------|----|-----------------------|--------------------|
| EPA METHOD 8260B: VOLATILES | | | | | | | Analyst: JMR | |
| 1,1-Dichloropropene | ND | 0.16 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Hexachlorobutadiene | ND | 0.31 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 2-Hexanone | ND | 1.5 | 10 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Isopropylbenzene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 4-Isopropyltoluene | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 4-Methyl-2-pentanone | ND | 0.71 | 10 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Methylene Chloride | 0.18 | 0.15 | 3.0 | J | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| n-Butylbenzene | ND | 0.23 | 3.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| n-Propylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| sec-Butylbenzene | ND | 0.25 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Styrene | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| tert-Butylbenzene | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,1,1,2-Tetrachloroethane | ND | 0.21 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,1,2,2-Tetrachloroethane | ND | 0.55 | 2.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Tetrachloroethene (PCE) | ND | 0.15 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| trans-1,2-DCE | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| trans-1,3-Dichloropropene | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,2,3-Trichlorobenzene | ND | 0.30 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,2,4-Trichlorobenzene | ND | 0.20 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,1,1-Trichloroethane | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,1,2-Trichloroethane | ND | 0.22 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Trichloroethene (TCE) | ND | 0.17 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Trichlorofluoromethane | ND | 0.19 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| 1,2,3-Trichloropropane | ND | 0.30 | 2.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Vinyl chloride | ND | 0.18 | 1.0 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Xylenes, Total | ND | 0.45 | 1.5 | | μg/L | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Surr: 1,2-Dichloroethane-d4 | 95.3 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Surr: 4-Bromofluorobenzene | 92.9 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Surr: Dibromofluoromethane | 101 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 11:31:28 PM | R62584 |
| Surr: Toluene-d8 | 99.6 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 11:31:28 PM | R62584 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: JMR | |
| Gasoline Range Organics (GRO) | ND | 0.031 | 0.050 | | mg/L | 1 | 8/30/2019 11:31:28 PM | G62584 |
| Surr: BFB | 97.5 | 0 | 70-130 | | %Rec | 1 | 8/30/2019 11:31:28 PM | G6258 ² |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

ND

ND

0.50

0.20

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: MB SampType: mblk TestCode: EPA Method 300.0: Anions Client ID: PBW Batch ID: R62781 RunNo: 62781 Prep Date: Analysis Date: 9/9/2019 SeqNo: 2138877 Units: mg/L SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual Fluoride ND 0.10 Chloride ND 0.50 **Bromide** ND 0.10 Phosphorus, Orthophosphate (As P ND 0.50

Sample ID: LCS SampType: Ics TestCode: EPA Method 300.0: Anions Client ID: LCSW Batch ID: R62781 RunNo: 62781 Prep Date: Analysis Date: 9/9/2019 SeqNo: 2138878 Units: mg/L SPK value SPK Ref Val %RPD **RPDLimit** PQL %REC HighLimit Analyte Result LowLimit Qual Fluoride 0.49 0.10 0.5000 98.3 90 110 0 97.5 90 0.50 5.000 110 Chloride 4.9 2.500 0 99.5 Bromide 2.5 0.10 90 110 Phosphorus, Orthophosphate (As P 4.7 0.50 5.000 0 94.1 90 110 Sulfate 0.50 0 99.1 99 10.00 90 110 Nitrate+Nitrite as N 3.5 0.20 3.500 0 100 90 110

Sample ID: 1908E78-007CMS TestCode: EPA Method 300.0: Anions SampType: ms Client ID: Field Balnk #2 Batch ID: R62781 RunNo: 62781 Prep Date: Analysis Date: 9/9/2019 SeqNo: 2138892 Units: mg/L Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 129 2.4 0.50 2.500 0 96.9 61.6 Fluoride Chloride 23 2.5 25.00 0 92.6 83.1 116 0 Bromide 12 0.50 12.50 94.5 81.9 109 Sulfate 47 2.5 50.00 0 93.8 84.2 122

Sample ID: 1908E78-007CMSD TestCode: EPA Method 300.0: Anions SampType: msd Client ID: Field Balnk #2 Batch ID: R62781 RunNo: 62781 Units: mg/L Prep Date: Analysis Date: 9/9/2019 SeqNo: 2138893 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Fluoride 2.4 0.50 2.500 0 97.1 61.6 129 0.227 20 Chloride 23 2.5 25.00 0 93.6 83.1 116 1.06 20 Bromide 12 0.50 12.50 0 95.5 81.9 109 0.960 20 0 Sulfate 48 2.5 50.00 95.1 84.2 20 122 1.35

Qualifiers:

Sulfate

Nitrate+Nitrite as N

- * Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Client:

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc.

WO#: **1908E78**

01-Oct-19

| Project: | 2019 Annual GW San | npling Event | | | | | | |
|----------------------|--------------------|----------------------|-------------|--------------------------|---------------|------|----------|------|
| Sample ID: MB | SampTyp | e: mblk | Tes | tCode: EPA Method | 300.0: Anions | | | |
| Client ID: PBW | Batch II | D: R62815 | F | tunNo: 62815 | | | | |
| Prep Date: | Analysis Dat | te: 9/10/2019 | S | SeqNo: 2140293 | Units: mg/L | | | |
| Analyte | Result | PQL SPK value | SPK Ref Val | %REC LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | ND | 0.50 | | | | | | |
| Sulfate | ND | 0.50 | | | | | | |
| Sample ID: LCS | SampTyp | De: Ics | Tes | tCode: EPA Method | 300.0: Anions | | | |
| Client ID: LCSW | Batch II | D: R62815 | F | tunNo: 62815 | | | | |
| Prep Date: | Analysis Dat | te: 9/10/2019 | S | SeqNo: 2140294 | Units: mg/L | | | |
| Analyte | Result | PQL SPK value | SPK Ref Val | %REC LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | 4.8 | 0.50 5.000 | 0 | 97.0 90 | 110 | | | |
| Sulfate | 9.8 | 0.50 10.00 | 0 | 98.1 90 | 110 | | | |
| Sample ID: LCS | SampTyp | De: Ics | Tes | tCode: EPA Method | 300.0: Anions | | | |
| Client ID: LCSW | Batch II | D: A62815 | F | tunNo: 62815 | | | | |
| Prep Date: | Analysis Dat | te: 9/10/2019 | S | SeqNo: 2140323 | Units: mg/L | | | |
| Analyte | Result | PQL SPK value | SPK Ref Val | %REC LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | 5.0 | 0.50 5.000 | 0 | 101 90 | 110 | | | |
| Sulfate | 10 | 0.50 10.00 | 0 | 101 90 | 110 | | | |
| Nitrate+Nitrite as N | 3.6 | 0.20 3.500 | 0 | 102 90 | 110 | | | |
| Sample ID: MB | SampTyp | e: mblk | Tes | tCode: EPA Method | 300.0: Anions | | | |
| Client ID: PBW | Batch II | D: A62815 | F | tunNo: 62815 | | | | |
| Prep Date: | Analysis Dat | te: 9/10/2019 | 8 | SeqNo: 2140324 | Units: mg/L | | | |
| Analyte | Result | PQL SPK value | SPK Ref Val | %REC LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | ND | 0.50 | | | | | | |
| Sulfate | ND | 0.50 | | | | | | |
| Nitrate+Nitrite as N | 0.041 | 0.20 | | | | | | J |
| Sample ID: MB | SampTyp | oe: MBLK | Tes | tCode: EPA Method | 300.0: Anions | | | |
| Client ID: PBW | Batch II | D: R62940 | F | tunNo: 62940 | | | | |
| Prep Date: | Analysis Dat | te: 9/13/2019 | S | SeqNo: 2144926 | Units: mg/L | | | |
| Analyte | Result | PQL SPK value | SPK Ref Val | %REC LowLimit | HighLimit | %RPD | RPDLimit | Qual |

Qualifiers:

Nitrate+Nitrite as N

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

ND

0.20

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

3.4

WO#: 1908E78

01-Oct-19

Client: Western Refining Southwest, Inc. **Project:** 2019 Annual GW Sampling Event

Sample ID: LCS SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSW Batch ID: R62940 RunNo: 62940

0.20

Prep Date: Analysis Date: 9/13/2019 SeqNo: 2144928 Units: mg/L

3.500

Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 0

98.5

90

110

Nitrate+Nitrite as N

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit Page 68 of 90

Client:

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc.

WO#: **1908E78**

01-Oct-19

| | nual GW Samp | * | | | | | | |
|--------------------------------|----------------|--------------|-------------|-------------------------|----------------|----------|----------|------|
| Sample ID: 1908E78-009BMS | SampType: | MS | Tes | tCode: EPA Metho | d 8015D: Diese | l Range | | |
| Client ID: MW-62 | Batch ID: | 47077 | F | RunNo: 62454 | | | | |
| Prep Date: 8/27/2019 | Analysis Date: | 8/29/2019 | 5 | SeqNo: 2126312 | Units: mg/L | | | |
| Analyte | Result PC | QL SPK value | SPK Ref Val | %REC LowLim | it HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 2.7 0 | .40 2.500 | 0 | 107 68. | 3 147 | | | |
| Surr: DNOP | 0.27 | 0.2500 | | 107 52. | 7 168 | | | |
| Sample ID: 1908E78-009BM\$ | SD SampType: | MSD | Tes | tCode: EPA Metho | d 8015D: Diese | el Range | | |
| Client ID: MW-62 | Batch ID: | 47077 | F | RunNo: 62454 | | | | |
| Prep Date: 8/27/2019 | Analysis Date: | 8/29/2019 | 5 | SeqNo: 2126313 | Units: mg/L | | | |
| Analyte | Result PC | QL SPK value | SPK Ref Val | %REC LowLim | it HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 2.9 0 | .40 2.500 | 0 | 114 68. | 3 147 | 6.23 | 20 | |
| Surr: DNOP | 0.28 | 0.2500 | | 113 52. | 7 168 | 0 | 0 | |
| Sample ID: LCS-47076 | SampType: | LCS | Tes | tCode: EPA Metho | d 8015D: Diese | el Range | | |
| Client ID: LCSW | Batch ID: | 47076 | F | RunNo: 62454 | | | | |
| Prep Date: 8/27/2019 | Analysis Date: | 8/28/2019 | 9 | SeqNo: 2126320 | Units: mg/L | | | |
| Analyte | Result PC | QL SPK value | SPK Ref Val | %REC LowLim | it HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 2.5 0 | .40 2.500 | 0 | 100 66. | 7 148 | | | |
| Surr: DNOP | 0.24 | 0.2500 | | 97.4 52. | 7 168 | | | |
| Sample ID: LCS-47077 | SampType: | LCS | Tes | tCode: EPA Metho | d 8015D: Diese | el Range | | |
| Client ID: LCSW | Batch ID: | 47077 | F | RunNo: 62454 | | | | |
| Prep Date: 8/27/2019 | Analysis Date: | 8/29/2019 | 9 | SeqNo: 2126321 | Units: mg/L | | | |
| Analyte | Result PC | QL SPK value | SPK Ref Val | %REC LowLim | it HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 3.1 0 | .40 2.500 | 0 | 122 66. | 7 148 | | | |
| Surr: DNOP | 0.31 | 0.2500 | | 122 52. | 7 168 | | | |
| Sample ID: MB-47076 | SampType: | MBLK | Tes | tCode: EPA Metho | d 8015D: Diese | el Range | | |
| Client ID: PBW | Batch ID: | 47076 | F | RunNo: 62454 | | | | |
| Prep Date: 8/27/2019 | Analysis Date: | 8/28/2019 | 5 | SeqNo: 2126322 | Units: mg/L | | | |
| Analyte | Result PC | QL SPK value | SPK Ref Val | %REC LowLim | it HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | ND 0 | .40 | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | | | | | |

Qualifiers:

Surr: DNOP

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

0.50

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

B Analyte detected in the associated Method Blank

99.8

52.7

168

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

0.5000

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: MB-47077 SampType: MBLK TestCode: EPA Method 8015D: Diesel Range

Client ID: PBW Batch ID: 47077 RunNo: 62454

Prep Date: 8/27/2019 Analysis Date: 8/29/2019 SeqNo: 2126323 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Diesel Range Organics (DRO) ND 0.40
Motor Oil Range Organics (MRO) ND 2.5

Surr: DNOP 0.66 0.5000 132 52.7 168

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: 100ng lcs | SampT | SampType: LCS TestCode: EPA Method 8260B: VOLATILES | | | | | | | | | |
|-----------------------------|------------|---|-----------|-------------|----------|----------|-------------|------|----------|------|--|
| Client ID: LCSW | Batch | n ID: R6 | 2584 | F | RunNo: 6 | 2584 | | | | | |
| Prep Date: | Analysis D | ate: 8/ | 30/2019 | S | SeqNo: 2 | 129847 | Units: µg/L | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Benzene | 20 | 1.0 | 20.00 | 0 | 100 | 70 | 130 | | | | |
| Toluene | 19 | 1.0 | 20.00 | 0 | 96.8 | 70 | 130 | | | | |
| Chlorobenzene | 20 | 1.0 | 20.00 | 0 | 98.5 | 70 | 130 | | | | |
| 1,1-Dichloroethene | 19 | 1.0 | 20.00 | 0 | 93.3 | 70 | 130 | | | | |
| Trichloroethene (TCE) | 19 | 1.0 | 20.00 | 0 | 93.7 | 70 | 130 | | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.4 | | 10.00 | | 94.4 | 70 | 130 | | | | |
| Surr: 4-Bromofluorobenzene | 9.6 | | 10.00 | | 96.1 | 70 | 130 | | | | |
| Surr: Dibromofluoromethane | 9.8 | | 10.00 | | 97.6 | 70 | 130 | | | | |
| Surr: Toluene-d8 | 9.5 | | 10.00 | | 94.8 | 70 | 130 | | | | |

| Sample ID. 1906676-001ams | Sampi | ype. ws | • | 168 | icode. Ei | PA Wethou | 0200D: VUL/ | AIILES | | |
|-----------------------------|------------|-----------------|-----------|-------------|-----------|-----------|-------------|--------|----------|------|
| Client ID: MW-59 | Batcl | n ID: R6 | 2584 | F | RunNo: 6 | 2584 | | | | |
| Prep Date: | Analysis D | Date: 8/ | 30/2019 | 8 | SeqNo: 2 | 129850 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 24 | 1.0 | 20.00 | 7.519 | 80.9 | 70 | 130 | | | |
| Toluene | 17 | 1.0 | 20.00 | 0 | 83.2 | 70 | 130 | | | |
| Chlorobenzene | 17 | 1.0 | 20.00 | 0 | 85.4 | 70 | 130 | | | |
| 1,1-Dichloroethene | 15 | 1.0 | 20.00 | 0 | 74.7 | 70 | 130 | | | |
| Trichloroethene (TCE) | 15 | 1.0 | 20.00 | 0 | 76.3 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 10 | | 10.00 | | 99.9 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.6 | | 10.00 | | 96.5 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 10 | | 10.00 | | 101 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.9 | | 10.00 | | 99.0 | 70 | 130 | | | |

| Sample ID: 1908e78-001amsd | SampT | ype: MS | SD | Tes | tCode: El | ATILES | | | | |
|-----------------------------|------------|----------------|-----------|-------------|-----------|----------|-------------|------|----------|------|
| Client ID: MW-59 | Batch | 1D: R6 | 2584 | F | RunNo: 6 | 2584 | | | | |
| Prep Date: | Analysis D | ate: 8/ | 30/2019 | 8 | SeqNo: 2 | 129852 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 25 | 1.0 | 20.00 | 7.519 | 88.0 | 70 | 130 | 5.75 | 20 | |
| Toluene | 19 | 1.0 | 20.00 | 0 | 95.1 | 70 | 130 | 13.4 | 20 | |
| Chlorobenzene | 19 | 1.0 | 20.00 | 0 | 93.8 | 70 | 130 | 9.40 | 20 | |
| 1,1-Dichloroethene | 16 | 1.0 | 20.00 | 0 | 79.7 | 70 | 130 | 6.53 | 20 | |
| Trichloroethene (TCE) | 17 | 1.0 | 20.00 | 0 | 84.0 | 70 | 130 | 9.69 | 20 | |
| Surr: 1,2-Dichloroethane-d4 | 9.6 | | 10.00 | | 96.0 | 70 | 130 | 0 | 0 | |
| Surr: 4-Bromofluorobenzene | 9.8 | | 10.00 | | 97.9 | 70 | 130 | 0 | 0 | |
| Surr: Dibromofluoromethane | 10 | | 10.00 | | 100 | 70 | 130 | 0 | 0 | |
| Surr: Toluene-d8 | 9.7 | | 10.00 | | 96.6 | 70 | 130 | 0 | 0 | |

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: rb SampType: MBLK TestCode: EPA Method 8260B: VOLATILES

Client ID: PBW Batch ID: R62584 RunNo: 62584

Prep Date: Analysis Date: 8/30/2019 SeqNo: 2129876 Units: µg/L PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Benzene ND 1.0 Toluene ND 1.0 ND Ethylbenzene 1.0 Methyl tert-butyl ether (MTBE) ND 1.0 1,2,4-Trimethylbenzene ND 1.0 1,3,5-Trimethylbenzene ND 1.0 1,2-Dichloroethane (EDC) ND 1.0 1,2-Dibromoethane (EDB) ND 1.0 Naphthalene ND 2.0 1-Methylnaphthalene ND 4.0 2-Methylnaphthalene ND 4.0 ND 10 Acetone ND Bromobenzene 1.0 Bromodichloromethane ND 1.0 Bromoform ND 1.0 Bromomethane ND 3.0 2-Butanone ND 10 Carbon disulfide ND 10 Carbon Tetrachloride ND 1.0 Chlorobenzene ND 1.0 ND Chloroethane 2.0 Chloroform ND 1.0 Chloromethane ND 3.0 2-Chlorotoluene ND 1.0 4-Chlorotoluene ND 1.0 cis-1,2-DCE ND 1.0 cis-1,3-Dichloropropene ND 1.0 ND 2.0 1,2-Dibromo-3-chloropropane Dibromochloromethane ND 1.0 Dibromomethane ND 1.0 1,2-Dichlorobenzene ND 1.0 ND 1,3-Dichlorobenzene 1.0 1,4-Dichlorobenzene ND 1.0 ND Dichlorodifluoromethane 1.0 1,1-Dichloroethane ND 1.0 1,1-Dichloroethene ND 1.0 1,2-Dichloropropane ND 1.0 1,3-Dichloropropane ND 1.0 2,2-Dichloropropane ND 2.0

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: rb | SampT | ype: ME | IBLK TestCode: EPA Method 8260B: VOLATILES | | | | | | | |
|-----------------------------|------------|---------|--|-------------|----------|----------|-------------|------|----------|------|
| Client ID: PBW | Batch | ID: R6 | 2584 | F | RunNo: 6 | 2584 | | | | |
| Prep Date: | Analysis D | ate: 8/ | 30/2019 | \$ | SeqNo: 2 | 129876 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| 1,1-Dichloropropene | ND | 1.0 | | | | | | | | |
| Hexachlorobutadiene | ND | 1.0 | | | | | | | | |
| 2-Hexanone | ND | 10 | | | | | | | | |
| Isopropylbenzene | ND | 1.0 | | | | | | | | |
| 4-Isopropyltoluene | ND | 1.0 | | | | | | | | |
| 4-Methyl-2-pentanone | ND | 10 | | | | | | | | |
| Methylene Chloride | ND | 3.0 | | | | | | | | |
| n-Butylbenzene | ND | 3.0 | | | | | | | | |
| n-Propylbenzene | ND | 1.0 | | | | | | | | |
| sec-Butylbenzene | ND | 1.0 | | | | | | | | |
| Styrene | ND | 1.0 | | | | | | | | |
| tert-Butylbenzene | ND | 1.0 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | | | | | | | | |
| Tetrachloroethene (PCE) | ND | 1.0 | | | | | | | | |
| trans-1,2-DCE | ND | 1.0 | | | | | | | | |
| trans-1,3-Dichloropropene | ND | 1.0 | | | | | | | | |
| 1,2,3-Trichlorobenzene | ND | 1.0 | | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 1.0 | | | | | | | | |
| 1,1,1-Trichloroethane | ND | 1.0 | | | | | | | | |
| 1,1,2-Trichloroethane | ND | 1.0 | | | | | | | | |
| Trichloroethene (TCE) | ND | 1.0 | | | | | | | | |
| Trichlorofluoromethane | ND | 1.0 | | | | | | | | |
| 1,2,3-Trichloropropane | ND | 2.0 | | | | | | | | |
| Vinyl chloride | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.2 | | 10.00 | | 91.6 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.5 | | 10.00 | | 94.9 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.6 | | 10.00 | | 95.8 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.8 | | 10.00 | | 98.4 | 70 | 130 | | | |

| Sample ID: 100ng lcs | SampT | ype: LC | S | Tes | tCode: El | PA Method | 8260B: VOL | ATILES | | |
|-----------------------------|------------|----------------|-----------|-------------|-----------|-----------|-------------|--------|----------|------|
| Client ID: LCSW | Batch | n ID: We | S2589 | F | RunNo: 6 | 2589 | | | | |
| Prep Date: | Analysis D | ate: 9/ | 3/2019 | 8 | SeqNo: 2 | 131150 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 20 | 1.0 | 20.00 | 0 | 98.8 | 70 | 130 | | | |
| Toluene | 20 | 1.0 | 20.00 | 0 | 101 | 70 | 130 | | | |
| Surr: 1.2-Dichloroethane-d4 | 9.3 | | 10.00 | | 92.8 | 70 | 130 | | | |

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: 100ng lcs | SampT | ype: LC | s | Tes | TestCode: EPA Method 8260B: VOLATILES | | | | | | |
|----------------------------|------------|----------------|-----------|-------------|---------------------------------------|-----------|-------------|--------|----------|------|--|
| Client ID: LCSW | Batch | ID: W | 62589 | F | RunNo: 6 2 | 2589 | | | | | |
| Prep Date: | Analysis D | ate: 9/ | 3/2019 | 5 | SeqNo: 2 | 131150 | Units: µg/L | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Surr: 4-Bromofluorobenzene | 9.9 | | 10.00 | | 99.2 | 70 | 130 | | | | |
| Surr: Dibromofluoromethane | 9.8 | | 10.00 | | 97.5 | 70 | 130 | | | | |
| Surr: Toluene-d8 | 9.7 | | 10.00 | | 97.4 | 70 | 130 | | | | |
| Sample ID: rb | SampT | ype: ME | BLK | Tes | tCode: El | PA Method | 8260B: VOL | ATILES | | | |
| Client ID: PBW | Batch | ID: W | 62589 | F | RunNo: 6 | 2589 | | | | | |
| Pren Date: | Analysis D | ate· 9/ | 3/2019 | ç | SeaNo: 2 | 131182 | Units: ua/l | | | | |

| Prep Date: | Analysis D | ate: 9/ | 3/2019 | S | SeqNo: 2 | 131182 | Units: µg/L | | | |
|-----------------------------|------------|----------------|-----------|-------------|----------|----------|-------------|------|----------|------|
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 1.0 | | | | | | | | |
| Naphthalene | ND | 2.0 | | | | | | | | |
| n-Propylbenzene | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.2 | | 10.00 | | 91.7 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.9 | | 10.00 | | 98.9 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 10 | | 10.00 | | 100 | 70 | 130 | | | |
| Surr: Toluene-d8 | 9.7 | | 10.00 | | 96.7 | 70 | 130 | | | |

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: Ics-47113 | SampT | ype: LC | s | Tes | tCode: El | PA Method | 8270C: Semi | volatiles | | |
|----------------------------|------------|-----------------|-----------|-------------|-----------|-----------|-------------|-----------|----------|------|
| Client ID: LCSW | Batch | n ID: 47 | 113 | F | RunNo: 6 | 2675 | | | | |
| Prep Date: 8/28/2019 | Analysis D | Date: 9/ | 5/2019 | 5 | SeqNo: 2 | 134037 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Acenaphthene | 70 | 10 | 100.0 | 0 | 69.8 | 32.2 | 94 | | | |
| 4-Chloro-3-methylphenol | 130 | 10 | 200.0 | 0 | 67.5 | 37.7 | 101 | | | |
| 2-Chlorophenol | 140 | 10 | 200.0 | 0 | 72.4 | 32.6 | 90.1 | | | |
| 1,4-Dichlorobenzene | 57 | 10 | 100.0 | 0 | 57.4 | 30 | 87.2 | | | |
| 2,4-Dinitrotoluene | 66 | 10 | 100.0 | 0 | 66.4 | 35.9 | 85.8 | | | |
| N-Nitrosodi-n-propylamine | 73 | 10 | 100.0 | 0 | 73.4 | 37.1 | 108 | | | |
| 4-Nitrophenol | 87 | 10 | 200.0 | 0 | 43.3 | 22.4 | 86.6 | | | |
| Pentachlorophenol | 110 | 20 | 200.0 | 0 | 57.0 | 31.6 | 91 | | | |
| Phenol | 88 | 10 | 200.0 | 0 | 43.8 | 21.7 | 84.9 | | | |
| Pyrene | 74 | 10 | 100.0 | 0 | 74.3 | 46.3 | 103 | | | |
| 1,2,4-Trichlorobenzene | 62 | 10 | 100.0 | 0 | 61.9 | 30.2 | 88.3 | | | |
| Surr: 2-Fluorophenol | 100 | | 200.0 | | 50.2 | 15 | 101 | | | |
| Surr: Phenol-d5 | 87 | | 200.0 | | 43.6 | 15 | 84.6 | | | |
| Surr: 2,4,6-Tribromophenol | 120 | | 200.0 | | 58.6 | 27.8 | 112 | | | |
| Surr: Nitrobenzene-d5 | 74 | | 100.0 | | 73.8 | 33 | 113 | | | |
| Surr: 2-Fluorobiphenyl | 70 | | 100.0 | | 69.8 | 26.6 | 107 | | | |
| Surr: 4-Terphenyl-d14 | 76 | | 100.0 | | 76.1 | 18.7 | 148 | | | |

| Sample ID: mb-47113 | SampT | ype: ME | BLK | Tes | tCode: El | PA Method | 8270C: Semi | volatiles | | |
|-----------------------------|------------|----------------|-----------|-------------|-----------|-----------|-------------|-----------|----------|------|
| Client ID: PBW | Batch | 1D: 47 | 113 | F | RunNo: 6 | 2675 | | | | |
| Prep Date: 8/28/2019 | Analysis D | ate: 9/ | 5/2019 | 8 | SeqNo: 2 | 134038 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Acenaphthene | ND | 10 | | | | | | | | |
| Acenaphthylene | ND | 10 | | | | | | | | |
| Aniline | ND | 10 | | | | | | | | |
| Anthracene | ND | 10 | | | | | | | | |
| Azobenzene | ND | 10 | | | | | | | | |
| Benz(a)anthracene | ND | 10 | | | | | | | | |
| Benzo(a)pyrene | ND | 10 | | | | | | | | |
| Benzo(b)fluoranthene | ND | 10 | | | | | | | | |
| Benzo(g,h,i)perylene | ND | 10 | | | | | | | | |
| Benzo(k)fluoranthene | ND | 10 | | | | | | | | |
| Benzoic acid | ND | 20 | | | | | | | | |
| Benzyl alcohol | ND | 10 | | | | | | | | |
| Bis(2-chloroethoxy)methane | ND | 10 | | | | | | | | |
| Bis(2-chloroethyl)ether | ND | 10 | | | | | | | | |
| Bis(2-chloroisopropyl)ether | ND | 10 | | | | | | | | |
| Bis(2-ethylhexyl)phthalate | ND | 10 | | | | | | | | |

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: mb-47113 SampType: MBLK TestCode: EPA Method 8270C: Semivolatiles Client ID: PBW Batch ID: 47113 RunNo: 62675 Prep Date: 8/28/2019 Analysis Date: 9/5/2019 SeqNo: 2134038 Units: µg/L PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result 4-Bromophenyl phenyl ether ND 10 Butyl benzyl phthalate ND 10 ND 10 Carbazole 4-Chloro-3-methylphenol ND 10 4-Chloroaniline ND 10 2-Chloronaphthalene ND 10 2-Chlorophenol ND 10 4-Chlorophenyl phenyl ether ND 10 Chrysene ND 10 Di-n-butyl phthalate ND 10 Di-n-octyl phthalate ND 10 Dibenz(a,h)anthracene 10 ND ND 10 Dibenzofuran 1,2-Dichlorobenzene ND 10 1,3-Dichlorobenzene ND 10 10 1,4-Dichlorobenzene ND 3,3'-Dichlorobenzidine ND 10 Diethyl phthalate ND 10 Dimethyl phthalate ND 10 2,4-Dichlorophenol ND 20 ND 2,4-Dimethylphenol 10 20 4,6-Dinitro-2-methylphenol ND 2,4-Dinitrophenol 4.4 20 J 2,4-Dinitrotoluene ND 10 2,6-Dinitrotoluene ND 10 Fluoranthene ND 10 Fluorene ND 10 ND 10 Hexachlorobenzene Hexachlorobutadiene ND 10 Hexachlorocyclopentadiene ND 10 Hexachloroethane ND 10 ND Indeno(1,2,3-cd)pyrene 10 10 Isophorone ND ND 10 1-Methylnaphthalene 2-Methylnaphthalene ND 10 2-Methylphenol ND 10 3+4-Methylphenol ND 10 N-Nitrosodi-n-propylamine ND 10 N-Nitrosodimethylamine ND 10

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: mb-47113 | SampT | ype: ME | BLK | Tes | tCode: El | PA Method | 8270C: Semi | volatiles | | |
|----------------------------|------------|-------------------|-----------|-------------|-----------|-----------|-------------|-----------|----------|------|
| Client ID: PBW | Batch | n ID: 47 ′ | 113 | F | RunNo: 6 | 2675 | | | | |
| Prep Date: 8/28/2019 | Analysis D | ate: 9/ | 5/2019 | 5 | SeqNo: 2 | 134038 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| N-Nitrosodiphenylamine | ND | 10 | | | | | | | | |
| Naphthalene | ND | 10 | | | | | | | | |
| 2-Nitroaniline | ND | 10 | | | | | | | | |
| 3-Nitroaniline | ND | 10 | | | | | | | | |
| 4-Nitroaniline | ND | 10 | | | | | | | | |
| Nitrobenzene | ND | 10 | | | | | | | | |
| 2-Nitrophenol | ND | 10 | | | | | | | | |
| 4-Nitrophenol | ND | 10 | | | | | | | | |
| Pentachlorophenol | ND | 20 | | | | | | | | |
| Phenanthrene | ND | 10 | | | | | | | | |
| Phenol | ND | 10 | | | | | | | | |
| Pyrene | ND | 10 | | | | | | | | |
| Pyridine | ND | 10 | | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 10 | | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 10 | | | | | | | | |
| 2,4,6-Trichlorophenol | ND | 10 | | | | | | | | |
| Surr: 2-Fluorophenol | 1.0 | | 200.0 | | 0.510 | 15 | 101 | | | S |
| Surr: Phenol-d5 | 7.3 | | 200.0 | | 3.65 | 15 | 84.6 | | | S |
| Surr: 2,4,6-Tribromophenol | 0.24 | | 200.0 | | 0.120 | 27.8 | 112 | | | S |
| Surr: Nitrobenzene-d5 | 62 | | 100.0 | | 62.0 | 33 | 113 | | | |
| Surr: 2-Fluorobiphenyl | 56 | | 100.0 | | 55.5 | 26.6 | 107 | | | |
| Surr: 4-Terphenyl-d14 | 63 | | 100.0 | | 63.4 | 18.7 | 148 | | | |

| Sample ID: Icsd-47113 | SampT | ype: LC | SD | Tes | tCode: El | PA Method | 8270C: Semi | olatiles/ | | |
|---------------------------|------------|-----------------|-----------|-------------|-----------|-----------|-------------|-----------|----------|------|
| Client ID: LCSS02 | Batch | n ID: 47 | 113 | F | tunNo: 6 | 2675 | | | | |
| Prep Date: 8/28/2019 | Analysis D | ate: 9/ | 5/2019 | S | SeqNo: 2 | 134834 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Acenaphthene | 80 | 10 | 100.0 | 0 | 80.2 | 32.2 | 94 | 13.8 | 32.9 | |
| 4-Chloro-3-methylphenol | 180 | 10 | 200.0 | 0 | 89.4 | 37.7 | 101 | 27.9 | 29.9 | |
| 2-Chlorophenol | 170 | 10 | 200.0 | 0 | 82.6 | 32.6 | 90.1 | 13.2 | 28.5 | |
| 1,4-Dichlorobenzene | 66 | 10 | 100.0 | 0 | 66.4 | 15 | 87.2 | 14.6 | 44.9 | |
| 2,4-Dinitrotoluene | 73 | 10 | 100.0 | 0 | 73.0 | 35.9 | 85.8 | 9.41 | 28.5 | |
| N-Nitrosodi-n-propylamine | 89 | 10 | 100.0 | 0 | 89.1 | 37.1 | 108 | 19.3 | 29.9 | |
| 4-Nitrophenol | 100 | 10 | 200.0 | 0 | 50.3 | 15 | 86.6 | 14.9 | 68 | |
| Pentachlorophenol | 120 | 20 | 200.0 | 0 | 62.1 | 31.6 | 91 | 8.45 | 39.5 | |
| Phenol | 100 | 10 | 200.0 | 0 | 50.7 | 15 | 84.9 | 14.4 | 44.2 | |
| Pyrene | 79 | 10 | 100.0 | 0 | 78.9 | 46.3 | 103 | 5.93 | 23.8 | |
| 1,2,4-Trichlorobenzene | 71 | 10 | 100.0 | 0 | 71.4 | 15.7 | 88.3 | 14.3 | 38 | |

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

| Sample ID: Icsd-47113 | SampT | ype: LC | SD | Tes | tCode: El | PA Method | 8270C: Semi | volatiles | | |
|----------------------------|------------|----------------|-----------|-------------|-------------------|-----------|--------------|------------|----------|------|
| Client ID: LCSS02 | Batch | ID: 47 | 113 | F | RunNo: 6 | 2675 | | | | |
| Prep Date: 8/28/2019 | Analysis D | ate: 9/ | /5/2019 | 5 | SeqNo: 2 | 134834 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 2-Fluorophenol | 110 | | 200.0 | | 56.5 | 15 | 101 | 0 | 0 | |
| Surr: Phenol-d5 | 99 | | 200.0 | | 49.4 | 15 | 84.6 | 0 | 0 | |
| Surr: 2,4,6-Tribromophenol | 130 | | 200.0 | | 65.7 | 27.8 | 112 | 0 | 0 | |
| Surr: Nitrobenzene-d5 | 85 | | 100.0 | | 85.3 | 33 | 113 | 0 | 0 | |
| Surr: 2-Fluorobiphenyl | 75 | | 100.0 | | 75.0 | 26.6 | 107 | 0 | 0 | |
| Surr: 4-Terphenyl-d14 | 80 | | 100.0 | | 80.4 | 18.7 | 148 | 0 | 0 | |
| Sample ID: Ice 47246 | SamaT | /no: 1 C | | Too | tCada: E l | DA Mathad | 9270Cı Samir | reletile e | | |

| Sample ID: Ics-47316 | Sampl | ype: LC | S | les | tCode: El | PA Method | 8270C: Semi | volatiles | | |
|----------------------------|------------|-----------------|-----------|-------------|-----------|-----------|-------------|-----------|----------|------|
| Client ID: LCSW | Batch | n ID: 47 | 316 | F | RunNo: 6 | 2883 | | | | |
| Prep Date: 9/6/2019 | Analysis D | ate: 9/ | 12/2019 | 5 | SeqNo: 2 | 143013 | Units: %Red | ; | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 2-Fluorophenol | 92 | | 200.0 | | 45.8 | 15 | 101 | | | |
| Surr: Phenol-d5 | 72 | | 200.0 | | 35.9 | 15 | 84.6 | | | |
| Surr: 2,4,6-Tribromophenol | 110 | | 200.0 | | 53.1 | 27.8 | 112 | | | |
| Surr: Nitrobenzene-d5 | 67 | | 100.0 | | 66.9 | 33 | 113 | | | |
| Surr: 2-Fluorobiphenyl | 60 | | 100.0 | | 59.8 | 26.6 | 107 | | | |
| Surr: 4-Terphenyl-d14 | 54 | | 100.0 | | 54.1 | 18.7 | 148 | | | |

| Sample ID: Icsd-47316 | SampT | ype: LC | SD | Tes | tCode: El | PA Method | 8270C: Semi | volatiles | | |
|----------------------------|------------|----------------|-----------|-------------|-----------|-----------|-------------|-----------|----------|------|
| Client ID: LCSS02 | Batch | ID: 47 | 316 | F | RunNo: 6 | 2883 | | | | |
| Prep Date: 9/6/2019 | Analysis D | ate: 9/ | 12/2019 | 9 | SeqNo: 2 | 143016 | Units: %Red | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 2-Fluorophenol | 120 | | 200.0 | | 58.8 | 15 | 101 | 0 | 0 | |
| Surr: Phenol-d5 | 92 | | 200.0 | | 46.1 | 15 | 84.6 | 0 | 0 | |
| Surr: 2,4,6-Tribromophenol | 130 | | 200.0 | | 66.7 | 27.8 | 112 | 0 | 0 | |
| Surr: Nitrobenzene-d5 | 82 | | 100.0 | | 82.4 | 33 | 113 | 0 | 0 | |
| Surr: 2-Fluorobiphenyl | 80 | | 100.0 | | 80.3 | 26.6 | 107 | 0 | 0 | |
| Surr: 4-Terphenyl-d14 | 68 | | 100.0 | | 67.9 | 18.7 | 148 | 0 | 0 | |

| Sample ID: mb-47316 | SampT | уре: МЕ | BLK | Tes | tCode: El | PA Method | 8270C: Semi | volatiles | | |
|----------------------------|------------|---------------|-----------|-------------|-----------|-----------|-------------|-----------|----------|------|
| Client ID: PBW | Batch | ID: 47 | 316 | F | RunNo: 6 | 2883 | | | | |
| Prep Date: 9/6/2019 | Analysis D | ate: 9/ | 12/2019 | S | SeqNo: 2 | 143019 | Units: %Red | ; | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: 2-Fluorophenol | 81 | | 200.0 | | 40.4 | 15 | 101 | | | |
| Surr: Phenol-d5 | 62 | | 200.0 | | 30.9 | 15 | 84.6 | | | |
| Surr: 2,4,6-Tribromophenol | 92 | | 200.0 | | 45.8 | 27.8 | 112 | | | |
| Surr: Nitrobenzene-d5 | 54 | | 100.0 | | 53.9 | 33 | 113 | | | |

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: mb-47316 SampType: MBLK TestCode: EPA Method 8270C: Semivolatiles

Client ID: PBW Batch ID: 47316 RunNo: 62883

Prep Date: 9/6/2019 Analysis Date: 9/12/2019 SeqNo: 2143019 Units: %Rec

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Surr: 2-Fluorobiphenyl
 48
 100.0
 48.0
 26.6
 107

 Surr: 4-Terphenyl-d14
 49
 100.0
 49.1
 18.7
 148

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: Ics-1 99.8uS eC SampType: Ics TestCode: SM2510B: Specific Conductance

Client ID: LCSW Batch ID: R62496 RunNo: 62496

Prep Date: Analysis Date: 8/28/2019 SeqNo: 2126130 Units: µmhos/cm

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Conductivity 100 5.0 99.80 0 100 85 115

Sample ID: Ics-2 99.8uS eC SampType: Ics TestCode: SM2510B: Specific Conductance

Client ID: LCSW Batch ID: R62496 RunNo: 62496

Prep Date: Analysis Date: 8/28/2019 SeqNo: 2126193 Units: µmhos/cm

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Conductivity 100 5.0 99.80 0 104 85 115

Sample ID: 1908e78-014c dup SampType: dup TestCode: SM2510B: Specific Conductance

Client ID: MW-52 Batch ID: R62496 RunNo: 62496

Prep Date: Analysis Date: 8/28/2019 SeqNo: 2126195 Units: µmhos/cm

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Conductivity 5100 5.0 0.146 20

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: MB-47428 SampType: MBLK TestCode: EPA Method 7470: Mercury

Client ID: PBW Batch ID: 47428 RunNo: 62872

Prep Date: 9/11/2019 Analysis Date: 9/12/2019 SeqNo: 2142285 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.000039 0.00020 J

Sample ID: LCS-47428 SampType: LCS TestCode: EPA Method 7470: Mercury

Client ID: LCSW Batch ID: 47428 RunNo: 62872

Prep Date: 9/11/2019 Analysis Date: 9/12/2019 SeqNo: 2142286 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.0047 0.00020 0.005000 0 93.1 80 120

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 81 of 90

Hall Environmental Analysis Laboratory, Inc.

SampType: LCS

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: MB-A SampType: MBLK TestCode: EPA Method 6010B: Dissolved Metals Client ID: PBW Batch ID: A62764 RunNo: 62764 Prep Date: Analysis Date: 9/9/2019 SeqNo: 2137952 Units: mg/L Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result Arsenic ND 0.020 Barium ND 0.020

| Cadmium | ND | 0.0020 |
|-----------|----|--------|
| Calcium | ND | 1.0 |
| Chromium | ND | 0.0060 |
| Copper | ND | 0.0060 |
| Iron | ND | 0.020 |
| Lead | ND | 0.0050 |
| Magnesium | ND | 1.0 |
| Manganese | ND | 0.0020 |
| Potassium | ND | 1.0 |
| Selenium | ND | 0.050 |
| Silver | ND | 0.0050 |
| Sodium | ND | 1.0 |
| Uranium | ND | 0.10 |
| Zinc | ND | 0.020 |

| | | .) [| • | | | | | | | | |
|-----------------|----------|-----------------|-----------|-------------|----------|----------|-------------|------|----------|------|--|
| Client ID: LCSW | Bato | ch ID: A6 | 2764 | F | RunNo: 6 | 2764 | | | | | |
| Prep Date: | Analysis | Date: 9/ | 9/2019 | 5 | SeqNo: 2 | 137953 | Units: mg/L | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Arsenic | 0.48 | 0.020 | 0.5000 | 0 | 95.6 | 80 | 120 | | | | |
| Barium | 0.48 | 0.020 | 0.5000 | 0 | 95.1 | 80 | 120 | | | | |
| Cadmium | 0.50 | 0.0020 | 0.5000 | 0 | 99.4 | 80 | 120 | | | | |
| Calcium | 50 | 1.0 | 50.00 | 0 | 100 | 80 | 120 | | | | |
| Chromium | 0.49 | 0.0060 | 0.5000 | 0 | 97.1 | 80 | 120 | | | | |
| Copper | 0.50 | 0.0060 | 0.5000 | 0 | 100 | 80 | 120 | | | | |
| Iron | 0.49 | 0.020 | 0.5000 | 0 | 98.6 | 80 | 120 | | | | |
| Lead | 0.49 | 0.0050 | 0.5000 | 0 | 98.6 | 80 | 120 | | | | |
| Magnesium | 50 | 1.0 | 50.00 | 0 | 100 | 80 | 120 | | | | |
| Manganese | 0.48 | 0.0020 | 0.5000 | 0 | 97.0 | 80 | 120 | | | | |
| Potassium | 50 | 1.0 | 50.00 | 0 | 99.3 | 80 | 120 | | | | |
| Selenium | 0.48 | 0.050 | 0.5000 | 0 | 96.3 | 80 | 120 | | | | |
| Silver | 0.10 | 0.0050 | 0.1000 | 0 | 99.8 | 80 | 120 | | | | |
| Sodium | 50 | 1.0 | 50.00 | 0 | 99.6 | 80 | 120 | | | | |
| Uranium | 0.46 | 0.10 | 0.5000 | 0 | 91.3 | 80 | 120 | | | | |
| Zinc | 0.48 | 0.020 | 0.5000 | 0 | 96.5 | 80 | 120 | | | | |
| | | | | | | | | | | | |

Qualifiers:

Sample ID: LCS-A

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

TestCode: EPA Method 6010B: Dissolved Metals

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Client:

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc.

WO#: **1908E78**

01-Oct-19

| Project: | 2019 Annual GW | Sampling | g Event | | | | | | | |
|---|--|--|---|---|--|--|---|------------------------|-------------------------|------|
| Sample ID: MB-B | Samp | Туре: МЕ | BLK | Tes | tCode: El | PA Method | 6010B: Disso | lved Meta | als | |
| Client ID: PBW | Bato | ch ID: B6 | 2764 | F | RunNo: 6 | 2764 | | | | |
| Prep Date: | Analysis | Date: 9/ | 9/2019 | S | SeqNo: 2 | 137955 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Barium | ND | 0.020 | | | | | | | | |
| Cadmium | ND | 0.0020 | | | | | | | | |
| Calcium | ND | 1.0 | | | | | | | | |
| Chromium | ND | 0.0060 | | | | | | | | |
| Copper | ND | 0.0060 | | | | | | | | |
| Iron | ND | 0.020 | | | | | | | | |
| Magnesium | ND | 1.0 | | | | | | | | |
| Manganese | ND | 0.0020 | | | | | | | | |
| Potassium | ND | 1.0 | | | | | | | | |
| Selenium | ND | 0.050 | | | | | | | | |
| Silver | ND | 0.0050 | | | | | | | | |
| Sodium | ND | 1.0 | | | | | | | | |
| Uranium | ND | 0.10 | | | | | | | | |
| Zinc | ND | 0.020 | | | | | | | | |
| | | | | | | | | | | |
| Sample ID: MB-A | Samp | Туре: МЕ | BLK | Tes | tCode: El | PA Method | 6010B: Disso | lved Meta | als | |
| Sample ID: MB-A Client ID: PBW | | Type: ME | | | tCode: El RunNo: 6 | | 6010B: Disso | lved Meta | ıls | |
| | Bato | | 2841 | F | | 2841 | 6010B: Disso | lved Meta | als | |
| Client ID: PBW | Bato | ch ID: A6 | 2841 11/2019 | F | RunNo: 6: SeqNo: 2: | 2841 | | Ned Meta | als RPDLimit | Qual |
| Client ID: PBW Prep Date: | Bato Analysis | ch ID: A6 Date: 9/ | 2841 11/2019 | F | RunNo: 6: SeqNo: 2: | 2841 141041 | Units: mg/L | | | Qual |
| Client ID: PBW Prep Date: Analyte | Bate Analysis Result ND | ch ID: A6 Date: 9/ | 2841 11/2019 SPK value | SPK Ref Val | RunNo: 6: SeqNo: 2: %REC | 2841 141041 LowLimit | Units: mg/L | %RPD | RPDLimit | Qual |
| Client ID: PBW Prep Date: Analyte Calcium | Bate Analysis Result ND Samp | ch ID: A6 Date: 9/ PQL 1.0 | 2841 11/2019 SPK value | SPK Ref Val | RunNo: 6: SeqNo: 2: %REC | 2841 141041 LowLimit PA Method | Units: mg/L HighLimit | %RPD | RPDLimit | Qual |
| Client ID: PBW Prep Date: Analyte Calcium Sample ID: LCS-A | Bate Analysis Result ND Samp | PQL 1.0 | 2841 11/2019 SPK value S 2841 | SPK Ref Val Tes | RunNo: 6: SeqNo: 2 %REC tCode: El | 2841 141041 LowLimit PA Method 2841 | Units: mg/L HighLimit | %RPD | RPDLimit | Qual |
| Client ID: PBW Prep Date: Analyte Calcium Sample ID: LCS-A Client ID: LCSW Prep Date: | Bate Analysis Result ND Samp Bate Analysis | PQL 1.0 Type: LC | 2841 11/2019 SPK value SS 2841 11/2019 | SPK Ref Val Tes | RunNo: 6: SeqNo: 2 %REC tCode: El RunNo: 6: SeqNo: 2 | 2841 141041 LowLimit PA Method 2841 | Units: mg/L HighLimit 6010B: Disso Units: mg/L | %RPD | RPDLimit | Qual |
| Client ID: PBW Prep Date: Analyte Calcium Sample ID: LCS-A Client ID: LCSW | Bate Analysis Result ND Samp | PQL 1.0 Type: LC ch ID: A6 Date: 9/ | 2841 11/2019 SPK value SS 2841 11/2019 | SPK Ref Val Tes | RunNo: 6: SeqNo: 2 %REC tCode: El RunNo: 6: SeqNo: 2 | 2841 141041 LowLimit PA Method 2841 141042 | Units: mg/L HighLimit 6010B: Disso | %RPD | RPDLimit | |
| Client ID: PBW Prep Date: Analyte Calcium Sample ID: LCS-A Client ID: LCSW Prep Date: Analyte | Bate Analysis Result ND Samp Bate Analysis Result 49 | PQL 1.0 Type: LC ch ID: A6 Date: 9/ PQL PQL PQL PQL PQL | 2841 11/2019 SPK value S 2841 11/2019 SPK value 50.00 | SPK Ref Val Tes F S SPK Ref Val 0 | RunNo: 6: SeqNo: 2 %REC tCode: EI RunNo: 6: SeqNo: 2 %REC 98.8 | 2841 141041 LowLimit PA Method 2841 141042 LowLimit 80 | Units: mg/L HighLimit 6010B: Disso Units: mg/L HighLimit | %RPD lived Meta %RPD | RPDLimit als RPDLimit | |
| Client ID: PBW Prep Date: Analyte Calcium Sample ID: LCS-A Client ID: LCSW Prep Date: Analyte Calcium | Bate Analysis Result ND Samp Bate Analysis Result 49 | PQL 1.0 Type: LC ch ID: A6 Date: 9/ PQL 1.0 Type: LC ch ID: A6 Date: 9/ PQL 1.0 | 2841 11/2019 SPK value S 2841 11/2019 SPK value 50.00 | SPK Ref Val Tes SPK Ref Val 0 Tes | RunNo: 6: SeqNo: 2 %REC tCode: EI RunNo: 6: SeqNo: 2 %REC 98.8 | 2841 141041 LowLimit PA Method 2841 141042 LowLimit 80 PA Method | Units: mg/L HighLimit 6010B: Disso Units: mg/L HighLimit 120 | %RPD lived Meta %RPD | RPDLimit als RPDLimit | |
| Client ID: PBW Prep Date: Analyte Calcium Sample ID: LCS-A Client ID: LCSW Prep Date: Analyte Calcium Sample ID: MB-A | Bate Analysis Result ND Samp Bate Analysis Result 49 Samp Bate | PQL 1.0 Type: LC 1.0 Type: LC 1.0 Type: LC 1.0 Type: ME | 2841 11/2019 SPK value SS 2841 11/2019 SPK value 50.00 BLK 3017 | SPK Ref Val Tes SPK Ref Val 0 Tes F | RunNo: 6: SeqNo: 2 %REC tCode: EI RunNo: 6: SeqNo: 2 %REC 98.8 | 2841 141041 LowLimit PA Method 2841 141042 LowLimit 80 PA Method 3017 | Units: mg/L HighLimit 6010B: Disso Units: mg/L HighLimit 120 | %RPD lived Meta %RPD | RPDLimit als RPDLimit | |
| Client ID: PBW Prep Date: Analyte Calcium Sample ID: LCS-A Client ID: LCSW Prep Date: Analyte Calcium Sample ID: MB-A Client ID: PBW | Bate Analysis Result ND Samp Bate Analysis Result 49 Samp Bate | PQL 1.0 Type: LC h ID: A6 Date: 9/ PQL 1.0 Type: LC h ID: A6 Date: 9/ PQL 1.0 Type: ME ch ID: A6 | 2841 11/2019 SPK value SS 2841 11/2019 SPK value 50.00 BLK 3017 18/2019 | SPK Ref Val Tes SPK Ref Val 0 Tes F | RunNo: 6: SeqNo: 2 %REC tCode: El RunNo: 6: SeqNo: 2 %REC 98.8 tCode: El RunNo: 6: SeqNo: 2 | 2841 141041 LowLimit PA Method 2841 141042 LowLimit 80 PA Method 3017 148716 | Units: mg/L HighLimit 6010B: Disso Units: mg/L HighLimit 120 6010B: Disso | %RPD lived Meta %RPD | RPDLimit als RPDLimit | |
| Client ID: PBW Prep Date: Analyte Calcium Sample ID: LCS-A Client ID: LCSW Prep Date: Analyte Calcium Sample ID: MB-A Client ID: PBW Prep Date: | Bate Analysis Result ND Samp Bate Analysis Result 49 Samp Bate Analysis | PQL 1.0 Type: LC ch ID: A6 Date: 9/ PQL 1.0 Type: LC ch ID: A6 Date: 9/ PQL 1.0 Type: ME ch ID: A6 Date: 9/ | 2841 11/2019 SPK value SS 2841 11/2019 SPK value 50.00 BLK 3017 18/2019 | SPK Ref Val Tes SPK Ref Val 0 Tes SPK Ref Val 0 | RunNo: 6: SeqNo: 2 %REC tCode: El RunNo: 6: SeqNo: 2 %REC 98.8 tCode: El RunNo: 6: SeqNo: 2 | 2841 141041 LowLimit PA Method 2841 141042 LowLimit 80 PA Method 3017 148716 | Units: mg/L HighLimit 6010B: Disso Units: mg/L HighLimit 120 6010B: Disso Units: mg/L | %RPD WRPD | RPDLimit RPDLimit | Qual |
| Client ID: PBW Prep Date: Analyte Calcium Sample ID: LCS-A Client ID: LCSW Prep Date: Analyte Calcium Sample ID: MB-A Client ID: PBW Prep Date: Analyte | Bate Analysis Result ND Samp Bate Analysis Result 49 Samp Bate Analysis Result Result Analysis | PQL 1.0 Type: LC th ID: A6 Date: 9/ PQL 1.0 Type: ME th ID: A6 Date: 9/ PQL Date: 9/ PQL PQL PQL PQL PQL PQL | 2841 11/2019 SPK value SS 2841 11/2019 SPK value 50.00 BLK 3017 18/2019 | SPK Ref Val Tes SPK Ref Val 0 Tes SPK Ref Val 0 | RunNo: 6: SeqNo: 2 %REC tCode: El RunNo: 6: SeqNo: 2 %REC 98.8 tCode: El RunNo: 6: SeqNo: 2 | 2841 141041 LowLimit PA Method 2841 141042 LowLimit 80 PA Method 3017 148716 | Units: mg/L HighLimit 6010B: Disso Units: mg/L HighLimit 120 6010B: Disso Units: mg/L | %RPD WRPD | RPDLimit RPDLimit | Qual |

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Client:

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc.

0.47

Result

0.46

0.0050

Batch ID: A63074

PQL

0.0050

Analysis Date: 9/20/2019

SampType: MSD

0.5000

0.5000

SPK value SPK Ref Val

WO#: **1908E78**

01-Oct-19

| Project: 2019 | Annual GW Samplin | ng Event | | | | | | | |
|------------------------|--------------------|-----------|-------------|------------------|-----------|--------------|-----------|----------|------|
| Sample ID: LCS-A | SampType: L | cs | Tes | tCode: EF | PA Method | 6010B: Disso | lved Meta | ıls | |
| Client ID: LCSW | Batch ID: A | 63017 | F | unNo: 6 3 | 3017 | | | | |
| Prep Date: | Analysis Date: 9 | /18/2019 | S | SeqNo: 21 | 148717 | Units: mg/L | | | |
| Analyte | Result PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Calcium | 49 1.0 | 50.00 | 0 | 98.6 | 80 | 120 | | | |
| Iron | 0.49 0.020 | 0.5000 | 0 | 97.5 | 80 | 120 | | | |
| Sodium | 49 1.0 | 50.00 | 0 | 97.5 | 80 | 120 | | | |
| Sample ID: MB-A | SampType: M | BLK | Tes | tCode: EF | PA Method | 6010B: Disso | lved Meta | ıls | |
| Client ID: PBW | Batch ID: A | 63074 | F | tunNo: 63 | 3074 | | | | |
| Prep Date: | Analysis Date: 9 | /20/2019 | S | SeqNo: 21 | 151039 | Units: mg/L | | | |
| Analyte | Result PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Lead | ND 0.0050 |) | | | | | | | |
| Sample ID: LCS-A | SampType: L | cs | Tes | tCode: EF | PA Method | 6010B: Disso | lved Meta | ıls | |
| Client ID: LCSW | Batch ID: A | 63074 | F | unNo: 63 | 3074 | | | | |
| Prep Date: | Analysis Date: 9 | /20/2019 | S | SeqNo: 21 | 151040 | Units: mg/L | | | |
| Analyte | Result PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Lead | 0.47 0.0050 | 0.5000 | 0 | 94.4 | 80 | 120 | | | |
| Sample ID: 1908E78-013 | EMS SampType: M | s | Tes | tCode: EF | PA Method | 6010B: Disso | Ived Meta | ıls | |
| Client ID: MW-53 | Batch ID: A | 63074 | F | lunNo: 63 | 3074 | | | | |
| Prep Date: | Analysis Date: 9 | /20/2019 | S | SeqNo: 21 | 151068 | Units: mg/L | | | |
| Analyte | Result PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

0

Lead

| Qual | ifiers: | |
|------|---------|-------|
| * | 37.1 | M |

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Sample ID: 1908E78-013EMSD

Client ID: MW-53

Prep Date:

Analyte

Lead

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

94.4

RunNo: 63074

%REC

92.5

SeqNo: 2151069

75

LowLimit

75

TestCode: EPA Method 6010B: Dissolved Metals

125

Units: mg/L

HighLimit

125

%RPD

2.00

RPDLimit

20

Qual

Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

ND

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: MB-47071 SampType: MBLK TestCode: EPA 6010B: Total Recoverable Metals

Client ID: PBW Batch ID: 47071 RunNo: 62682

0.0050

Prep Date: 8/26/2019 Analysis Date: 9/5/2019 SeqNo: 2134130 Units: mg/L

PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Arsenic ND 0.020 Barium ND 0.020 Cadmium ND 0.0020 Chromium ND 0.0060 Lead ND 0.0050 ND 0.050 Selenium

Sample ID: LCS-47071 SampType: LCS TestCode: EPA 6010B: Total Recoverable Metals Client ID: LCSW Batch ID: 47071 RunNo: 62682 Prep Date: 8/26/2019 Analysis Date: 9/5/2019 SeqNo: 2134131 Units: mg/L Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 0.48 0.5000 96.7 80 120 0.020 0 Arsenic 0.47 0.020 0.5000 0 94.6 80 120 Barium 100 Cadmium 0.50 0.0020 0.5000 0 80 120 Chromium 0.48 0.0060 0.5000 0 96.6 80 120 Lead 0.49 0.0050 0.5000 0 97.7 80 120 0.51 0 102 Selenium 0.050 0.5000 80 120 Silver 0.10 0.0050 0.1000 0 100 80 120

Qualifiers:

Silver

* Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 85 of 90

Client:

Project:

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc.

2019 Annual GW Sampling Event

0.050

SampType: MBLK

Analysis Date: 9/3/2019

Batch ID: G62589

0.48

Result

10

0.5000

10.00

SPK value SPK Ref Val

WO#: **1908E78**

01-Oct-19

| Sample ID: 1908e78-002ams | SampT | уре: М | 3 | Tes | Code: EF | PA Method | 8015D: Gasol | ine Rang | e | |
|-------------------------------|------------|------------------|-----------|-------------|-----------|-----------|--------------|----------|----------|------|
| Client ID: MW-63 | Batch | ID: G6 | 2584 | F | unNo: 62 | 2584 | | | | |
| Prep Date: | Analysis D | ate: 8/ | 30/2019 | S | eqNo: 2 | 129905 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 0.43 | 0.050 | 0.5000 | 0 | 86.3 | 70 | 130 | | | |
| Surr: BFB | 9.8 | | 10.00 | | 97.6 | 70 | 130 | | | |
| Sample ID: 1908e78-002amsd | SampT | ype: M \$ | SD | Tes | Code: EF | PA Method | 8015D: Gasol | ine Rang | e | |
| Client ID: MW-63 | Batch | ID: G6 | 2584 | F | tunNo: 62 | 2584 | | | | |
| Prep Date: | Analysis D | ate: 8/ | 30/2019 | S | eqNo: 2 | 129906 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 0.52 | 0.050 | 0.5000 | 0 | 104 | 70 | 130 | 18.7 | 20 | |
| Surr: BFB | 10 | | 10.00 | | 102 | 70 | 130 | 0 | 0 | |
| Sample ID: 2.5ug gro lcs | SampT | ype: LC | s | Tes | Code: EF | PA Method | 8015D: Gasol | ine Rang | e | |
| Client ID: LCSW | Batch | ID: G6 | 2584 | F | unNo: 62 | 2584 | | | | |
| Prep Date: | Analysis D | ate: 8/ | 30/2019 | S | eqNo: 2 | 129924 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 0.47 | 0.050 | 0.5000 | 0 | 93.6 | 70 | 130 | | | |
| Surr: BFB | 9.8 | | 10.00 | | 98.5 | 70 | 130 | | | |
| Sample ID: rb | SampT | ype: ME | BLK | Tes | Code: EF | PA Method | 8015D: Gasol | ine Rang | e | |
| Client ID: PBW | Batch | ID: G6 | 2584 | F | unNo: 62 | 2584 | | | | |
| Prep Date: | Analysis D | ate: 8/ | 30/2019 | S | eqNo: 2 | 129925 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND | 0.050 | | | | | | | | |
| Surr: BFB | 10 | | 10.00 | | 102 | 70 | 130 | | | |
| Sample ID: 2.5ug gro Ics | SampT | ype: LC | :s | Tes | Code: EF | PA Method | 8015D: Gasol | ine Rang | e | |
| Client ID: LCSW | Batch | ID: G6 | 2589 | F | unNo: 62 | 2589 | | | | |
| Prep Date: | Analysis D | ate: 9/ | 3/2019 | S | eqNo: 2 | 131205 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

Qualifiers:

Analyte

Surr: BFB

Sample ID: rb

Client ID:

Prep Date:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix

Gasoline Range Organics (GRO)

PBW

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

95.6

102

RunNo: 62589

%REC

SeqNo: 2131206

70

70

LowLimit

TestCode: EPA Method 8015D: Gasoline Range

130

130

Units: mg/L

HighLimit

%RPD

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

0

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RPDLimit

Qual

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: rb SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBW Batch ID: G62589 RunNo: 62589

Prep Date: Analysis Date: 9/3/2019 SeqNo: 2131206 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 0.050

Surr: BFB 10 10.00 102 70 130

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 87 of 90

Client:

Hall Environmental Analysis Laboratory, Inc.

Western Refining Southwest, Inc.

WO#: **1908E78**

01-Oct-19

| Project: 2019 Ann | nual GW Sampling | Event | | | | | | | |
|-----------------------------|----------------------|-----------|-------------|-------------------|------------|-------------|-------|----------|------|
| Sample ID: mb-1 alk | SampType: mbl | k | Tes | tCode: SN | M2320B: AI | kalinity | | | |
| Client ID: PBW | Batch ID: R62 | 496 | F | RunNo: 62 | 2496 | | | | |
| Prep Date: | Analysis Date: 8/2 | 8/2019 | Ş | SeqNo: 21 | 126078 | Units: mg/L | CaCO3 | | |
| Analyte | Result PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Total Alkalinity (as CaCO3) | ND 20.00 | | | | | | | | |
| Sample ID: Ics-1 alk | SampType: Ics | | Tes | tCode: SN | M2320B: AI | kalinity | | | |
| Client ID: LCSW | Batch ID: R62 | 496 | F | RunNo: 62 | 2496 | | | | |
| Prep Date: | Analysis Date: 8/2 | 8/2019 | 9 | SeqNo: 2 1 | 126079 | Units: mg/L | CaCO3 | | |
| Analyte | Result PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Total Alkalinity (as CaCO3) | 78.96 20.00 | 80.00 | 0 | 98.7 | 90 | 110 | | | |
| Sample ID: mb-2 alk | SampType: mbl | lk | Tes | tCode: SN | M2320B: AI | kalinity | | | |
| Client ID: PBW | Batch ID: R62 | 496 | F | RunNo: 62 | 2496 | | | | |
| Prep Date: | Analysis Date: 8/2 | 8/2019 | 5 | SeqNo: 2 1 | 126101 | Units: mg/L | CaCO3 | | |
| Analyte | Result PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Total Alkalinity (as CaCO3) | ND 20.00 | | | | | | | | |
| Sample ID: Ics-2 alk | SampType: Ics | | Tes | tCode: SN | M2320B: AI | kalinity | | | |
| Client ID: LCSW | Batch ID: R62 | 496 | F | RunNo: 62 | 2496 | | | | |
| Prep Date: | Analysis Date: 8/2 | 8/2019 | 9 | SeqNo: 2 1 | 126102 | Units: mg/L | CaCO3 | | |
| Analyte | Result PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Total Alkalinity (as CaCO3) | 80.56 20.00 | 80.00 | 0 | 101 | 90 | 110 | | | |
| Sample ID: 1908e78-014c dup | SampType: dup |) | Tes | tCode: SN | M2320B: AI | kalinity | | | |
| Client ID: MW-52 | Batch ID: R62 | 496 | F | RunNo: 62 | 2496 | | | | |
| Prep Date: | Analysis Date: 8/2 | 8/2019 | 9 | SeqNo: 21 | 126115 | Units: mg/L | CaCO3 | | |
| Analyte | Result PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Total Alkalinity (as CaCO3) | 197.9 20.00 | | | | | | 0.162 | 20 | |
| Sample ID: mb-1 alk | SampType: mbl | k | Tes | tCode: SN | M2320B: AI | kalinity | | | |
| Client ID: PBW | Batch ID: R62 | 2602 | F | RunNo: 62 | 2602 | | | | |
| Prep Date: | Analysis Date: 9/3 | /2019 | 5 | SeqNo: 21 | 131549 | Units: mg/L | CaCO3 | | |
| Analyte | Result PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Total Alkalinity (as CaCO3)

H Holding times for preparation or analysis exceeded

20.00

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 88 of 90

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: Ics-1 alk SampType: Ics TestCode: SM2320B: Alkalinity

Client ID: LCSW Batch ID: R62602 RunNo: 62602

Prep Date: Analysis Date: 9/3/2019 SeqNo: 2131550 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) 79.04 20.00 80.00 0 98.8 90 110

Sample ID: mb-2 alk SampType: mblk TestCode: SM2320B: Alkalinity

Client ID: PBW Batch ID: R62602 RunNo: 62602

Prep Date: Analysis Date: 9/3/2019 SeqNo: 2131579 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) ND 20.00

Sample ID: Ics-2 alk SampType: Ics TestCode: SM2320B: Alkalinity

Client ID: LCSW Batch ID: R62602 RunNo: 62602

Prep Date: Analysis Date: 9/3/2019 SeqNo: 2131580 Units: mg/L CaCO3

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Alkalinity (as CaCO3) 80.40 20.00 80.00 0 101 90 110

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 89 of 90

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908E78**

01-Oct-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: MB-47157 SampType: MBLK TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: PBW Batch ID: 47157 RunNo: 62586

Prep Date: 8/29/2019 Analysis Date: 9/3/2019 SeqNo: 2129944 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids ND 20.0

Sample ID: LCS-47157 SampType: LCS TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: LCSW Batch ID: 47157 RunNo: 62586

Prep Date: 8/29/2019 Analysis Date: 9/3/2019 SeqNo: 2129945 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids 1030 20.0 1000 0 103 80 120

Sample ID: 1908E78-015CDUP SampType: DUP TestCode: SM2540C MOD: Total Dissolved Solids

Client ID: MW-67 Batch ID: 47157 RunNo: 62586

Prep Date: **8/29/2019** Analysis Date: **9/3/2019** SeqNo: **2129959** Units: **mg/L**

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Total Dissolved Solids 853 20.0 1.30 10 *

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 90 of 90



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

| Client Name: | Western Refining South | w Work Order Num | ber: 1908E78 | - | RcptNo: | 1 |
|-------------------|---|---|--|------------------|-----------------|------------------------|
| Received By: | Anne Thorne | 8/23/2019 10:00:00 | O AM | anne Am | _ | |
| Completed By: | Anne Thorne | 8/26/2019 1:11:43 | PM | Anne H Anne H | | |
| Reviewed By: | B | 24/ca</td <td></td> <td></td> <td></td> <td></td> | | | | |
| Chain of Cus | stod <u>v</u> | 1 / | | | | |
| 1. Is Chain of C | Custody complete? | | Yes 🗹 | No 🗌 | Not Present | |
| 2. How was the | e sample delivered? | | <u>Courier</u> | | | |
| <u>Log In</u> | | | [4 | N. 🗆 | | |
| o. vvas an atter | mpt made to cool the sampl | es? | Yes 🔽 | No 📙 | NA 🗌 | |
| 4. Were all sam | ples received at a temperat | ure of >0° C to 6.0°C | Yes 🗸 | No 🗌 | NA \square | |
| 5. Sample(s) in | proper container(s)? | · | Yes 🗹 | No 🗆 | | |
| 6. Sufficient san | mple volume for indicated te | st(s)? | Yes 🗹 | No 🗌 | | |
| 7. Are samples | (except VOA and ONG) pro | perly preserved? | Yes 🗹 | No 🗌 | | |
| 8. Was preserva | ative added to bottles? | | Yes 🗌 | No 🗸 | NA \square | |
| 9. VOA vials ha | ve zero headspace? | | Yes 🗸 | No 🗆 | No VOA Vials | |
| 10. Were any sa | mple containers received br | oken? | Yes | No 🗹 | # of preserved | |
| | ork match bottle labels? ancies on chain of custody) | | Yes 🗸 | No 🗆 | for pH: (\$2)or | 2 212 unless noted) |
| 12. Are matrices | correctly identified on Chair | of Custody? | Yes 🗸 | No 🗆 | Adjusted? \ | <u> </u> |
| | at analyses were requested? | • | Yes 🗹 | No 🗌 | 44 | مرا براء |
| | ing times able to be met? customer for authorization.) | | Yes 🔽 | No 🗌 | Checked by: | M Delsolis |
| Special Hand | ling (if applicable) | | | | | |
| 15. Was client no | otified of all discrepancies w | ith this order? | Yes | No 🗌 | NA 🗹 | |
| Person | Notified: | Date | 1 | | | |
| By Who | om: | Via: | eMail P | hone Fax | in Person | |
| Regard | ling: | | | | | |
| Client I | nstructions: | | | | | |
| 16. Additional re | marks: | | | | | |
| 17. Cooler info | rmation | | | | | |
| Cooler No | | Seal Intact Seal No | Seal Date | Signed By | | |
| 1 | | Yes | The state of the forest and the second of the state of th | | | |
| 2 | | Yes | | | | |
| 3 | orași anima e al al ana cama ce manace " | Yes | | | | |
| 4 | 0.8 Good | Yes | | 1 | | |

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| 5 | 2. | | | , | Ë | | İ | | | | | | • | ı | 5 | 1 | . | |
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| Client: M | Veste | rn - Blo | Client: Western - Bloomfield Terminal | X Standard | □ Rush | | | | 4 | A | ANALYSTS LABORATORY | S | AB | | I | C | . > | |
| | | | | Project Name | : 2019 Annual GW | nual GW | | | ¦ ≶ | w ha | www.hallenvironmental.com | nmeni | | <u>.</u> | | | • | |
| Mailing Address: 50 CR 4990 | ddress | 50 CR | 4990 | | Sampling Event | g Event | 4 | 4901 Hawkins NE | awking | Z N | Albuc | neran | e S | Albuqueraue: NM 87109 | 6 | | | |
| | | Bloom | Bloomfield, NM 87413 | Project #: | | | | Tel. 50 | 505-345-3975 | | | × 505 | 505-345-4107 | 4107 | | 1.5 | | |
| Phone #: | | 419-421-2338 | 1-2338 | | | | | | | A | Analysis | | Request | | | | | |
| Email: gji | mccart | tney@ma | gimccartney@marathonpetroleum.com | Project Mana | iger: Gregol | Project Manager: Gregory McCartney | (| | | | | | | - | 7 | | | _ |
| QA/QC Package: | ckage: ird | | X Level 4 (Full Validation) | | | | | | | (SI | | | | _ | - ೧೨೪ಽ | linity | | |
| □ Other | | | | Sampler: | Tracy Payne | ne - 919-561-7055 | | | | | | | | | uoļi | /IKS | (| |
| X EDD (Type) | ype)_ | EXCEL | | | Yes T | ON □ | | | | | | | | | | √ - ' | Ило | |
| | | | | Sample Temp | erature: | CALMOUNT | | | | | | | | | | ·wə | (Y c | |
| Date 1 | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL NO. | 8TM+X3T8 8TM+X3T8 | aaros H9T | FDB (Metho | 01E8) HAG | RCRA 8 Me ⊢Nions (F,Cl | oitse9 1808 | 8260B (VO | imeS) 0728 N bevlossiQ | General Ch | General Ch | Air Bubbles | |
| 8/24/व 1 पम० | 440 | H ₂ O | MW-59 | 40ml VOA-5 | HCI | 3 | | | | | | | | ₩ | + | | <u> </u> | _ |
| | | H ₂ O | MW-59 | 250 ml amber-1 | Neat | 199 | | × | | | <u> </u> | | | | | | | |
| | | H ₂ O | MW-59 | 1 liter | Neat | 19 | | | | | | | | × | | | | |
| | | H ₂ O | WW-59 | 250 ml plastic-1 | HNO ₃ | 100 | | | | | × | | | | | | | |
| | | H ₂ 0 | MW-59 | 125 ml plastic-1 | HNO3 |)72 | | | | | | | | × | × | | | |
| | | H ₂ O | MW-59 | 125 mt plastic-1 | H ₂ SO ₄ | 3 | | | | | | | | | × | | | |
| → | _> | H ₂ O | MW-59 | 500 ml plastic-1 | Neat | 102 | į | | - | | | | | | <u> </u> | × | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | + | | + | 1 | \dagger | _ | | | | |
| Date: Tin | Time: | Relinguished by: | | Received by: | | Date Time | Remarks: | S: See | | alytic | ⊣ Me | — ₽odi | and | ∃ I Targ | Het A | nal <u>∢</u> | - S | |
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| | لے | <u></u> | | | | | | | | <u>(N</u> | 1 10 | 人) | Air Bubbles | | | | | | | | | | and Target Analytes. | | |
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| ' | Ž | 80 | Ë | Σ | 505-345-4107 | st | <u> </u> | | _ | | (A | | | | | | | | | | \perp | <u> </u> | 딜 | | |
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| | Z | SI | iviro | Albuquerque, NM 87109 | Fax | Analysis | | (°OS') | | | | | (F,Cl | | | | | | | | <u> </u> | + | ⊒e ⊠ | | |
| | | | www.hallenvironmental.com | t | | Ana | | ĺc | | | | | PAH (8310 | | | × | | | <u> </u> | | - | - | Analytical Methods | | |
| | HALL | 4 | ww.h | 4901 Hawkins NE | 505-345-3975 | | | (5 | IVVI | | | | EDB (Metho | | | | | | | | + | + | a a | | |
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| | Ц | | | 4901 | Ţe <u>.</u> | | | | | | | | BTK+X3T8 | \vdash | | | | | | - | - | + | -ĭ₹ :: | | |
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| | | | | | | | چ | | | - 919-561-7055 | | | . ℃ | 202 | 202 | 62 | 202 | 2002 | 8 | | | | Time | الم الم | J. |
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| | | | ĕ | ent | | | S | | | 19-5 | 0 | 50 | НЕ <i>/</i> | | | | | | | | | | Date 8/2 | | <u> </u> |
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| | | Rush | 2019 Annual GW | Sampling Event | | | Project Manager: Gregory McCartney | | | Tracy Payne | | 566 | live | | | | | 4 | l | | | | 7 | | 7 |
| | | <u>~</u> | 19/ | m. | | | Gre | | | 싥 | es | ure: | Preservative Type | НСІ | Neat | HNO3 | HNO3 | H ₂ SO ₄ | Neat | | | | | <u>.</u> | } |
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| | | dard | Project Name: | | | | lana | | | | | Femp | ier d# | A-5 | = 5 | = 5 | <u> </u> | = 7 | - 5 | | | | _ | 3 | J. |
| Turn-Around |) ; | X Standard | ect N | | Project #: | | ್ಕ್ಷ ಕ್ಷ | | | Sampler | .e | _ eld | Container Type and # | 40ml VOA-5 | 250 ml amber-1 | 250 ml plastic-1 | 125 ml plastic-1 | 125 ml plastic-1 | 500 ml plastic-1 | | | | q pay | | 1 |
| <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> | | × | Proj | | Proj | | Proje | | | Sam | On Ice: | Sample Tem | გ ₹ | 40m | 2; an | B 22 | 유 | 1, g | 56 pla | | | | Received by: | Received by | |
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| 5 | <u>.</u> | _ | | | | | ے | | ➤ Level 4 (Full Validation) | 1 | | | Sample Request ID | | | | | | | | | | | | · · |
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| R e | 2 | Tell | | | 87, | | oleur | | <u>.</u> | | Ì | | . Re | MW-63 | MW-63 | MW-63 | MW-63 | MW-63 | MW-63 | | | | | | |
| > | | 맞 | | • | ΣZ | 8 | petro | - | <u>⊅</u> 4 | | | | nple | | _ | * | = | _ | | | | | | | |
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| | | <u>0</u> | | ;R 4 | mfie | -12 | nara | > | < | | 닒 | | | _ | _ | | | | | | - | - | | shed t | |
| Chain-of-Custody Record | <u>'</u> ' | Client: Western - Bloomfield Terminal | | Mailing Address: 50 CR 4990 | Bloomfield, NM 87413 | 419-421-2338 | gimccartney@marathonpetroleum.com | | | | EXCEL | | Matrix | H ₂ O | H ₂ 0 | H_2O | H ₂ 0 | H ₂ 0 | H ₂ O | | | | Relinquished by: | Relinquished by: | |
| ç | <u>'</u> , | terr | | SS: | 80 | 4 | artne | <u>:</u> | | | | | | | | | _ | _ | _ | + | - | + | | | |
| jaj. | | Nes | | ddre | | | mcc | QA/QC Package: | <u>5</u> | | X EDD (Type) | | Time | 0851 11/22/ | | | | | \mapsto | | | | Time: | 7 1 1 2 7 4 1 2 4 4 1 2 4 1 2 1 2 1 2 1 2 1 2 1 2 | 카 |
| S | | - ا نځ | | ng A | | Phone #: | | C Pa | olaliualu | □ Other | <u>) aa</u> | | | | | | | | | + | + | + | | | 8/28/18/19/19 |
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| Č | 20.0 |) t | Chain of Custody Docord | Tire Around Time. | Time: | | I | | | | | | | | | | | ı |
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| Client: | Weste | rn - Blc | Western - Bloomfield Terminal | X Standard | □ Rush | | | | • | ANALYSIS | Ž | SI | | LABORATORY | 2 | | 2 | |
| | | | | Project Name: | 2019 Annual GW | ual GW | | | i | www.hallenvironmental.com | allen | ironr | · | 100 100 100 | |) : | | |
| Mailing Address: | Address | | 50 CR 4990 | | Sampling Event | g Event | | 901 | ∃awki | 4901 Hawkins NE | • | enbno | rque, | Albuquerque, NM 87109 | 7109 | | | |
| | | Bloom | Bloomfield, NM 87413 | Project #: | | | | Tel. 5 | 05-34 | 505-345-3975 | | Fax | 505-34 | Fax 505-345-4107 | 2,2 | | | |
| Phone #: | | 419-42 | 419-421-2338 | | | | | | | | Analysis | sis F | Request | st | | | | |
| Email: ç | jmccar | tney@ma | gjmccartney@marathonpetroleum.com | Project Manae | ger: Gregor | Project Manager: Gregory McCartney | | | | | | | | | | z | | |
| QA/QC Package: | ackage: | | | | | | | | | | | ([†] OS | s _i g(| | | | τλ | |
| ☐ Standard | lard | | X Level 4 (Full Validation) | | | | | | | (3) | | S' [†] O∘ |)d 7 | | | | iuin | |
| □ Other | | | | Sampler: | Tracy Payne | e - 919-561-7055 | | | | | | ∃' ^z C | 808 | | *** | | /IKS | () |
| X EDD (Type) | Type)_ | EXCEL | | On Ice: | ĭ Yes | oN 🗆 | | | | | | N ^ε | 8/8 | (A | sls | | / - · | / 10 |
| | | | | Sample Temp | perature: Se | See penals pail | | | | | | ON' | | | jəlV | | шə | Y) |
| i | | | | Container | Preservative | * | | | | | | ID,F) | | | рел | | นว เช | səlq |
| Date | lime | Matrix | Sample Request ID | Type and # | Туре | HEAL No. | +X3T | +X∃T | N) Hd | N) 80 | 3) HA | suoin | B0 9 8 | 3) 027 | lossi | ener | ener | ı. Buk |
| | | | | | | 1908678 | _ | | - | - | _ | ıΑ | _ | _ | ıa | | ອ | iΑ |
| 842/9 | 1615 | H ₂ O | MW-64 | 40ml VOA-5 | HCI | 203 | | × | | | | | × | | | | | |
| | | H ₂ O | MW-64 | 250 ml amber-1 | Neat | 703 | | × | | | | | | | | | | |
| | | H ₂ O | MW-64 | 250 ml plastic-1 | HNO3 | 592 | | | | | <u>.</u> × | | | | | | | |
| | | O ^z H | MW-64 | 125 ml plastic-1 | HNO³ | 592 | | | | | | | | | × | × | | |
| | | H ₂ O | MW-64 | 125 ml plastic-1 | H ₂ SO ₄ | 502 | | | | | | | | | | × | | |
| ${\rightarrow}$ | \rightarrow | H ₂ O | MW-64 | 500 ml plastic-1 | Neat | B | | | | | | | | | | | × | |
| | | | | | | | | | | | | | | | | | | |
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| | ime: | Relinquished by | Ay: | | | Ë | Remarks: | | see / | ∖naly | ical | Meth | spo | See Analytical Methods and Target Analytes. | arge | it An | alyte | S. |
| | 24.6 | * | \ | 1/1/2/8 | 3 | | | | | | | | | | | | | , |
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| | | × 71 × 71 × 71 × 71 × 71 × 71 × 71 × 71 | | | | 133 | | | | | | | | | | | |] |

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| Chain-of-Custody Becord | 5 | Western - Bloomfield Terminal | | Mailing Address: | | | gimccartney@marathonpetroleum.com | QA/QC Package: | ard | Ciner (Type) | - <i>j</i> pc/ - | | Time | 0145 | | | | | > | 1 | \top | | Time: Style | ^ |
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| | | Bloom | Bloomfield, NM 87413 | Project #: | | | _ | Tel. 50 | 505-345-3975 | -3975 | ü | Fax 505 | 505-345-4107 | 107 | | | |
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| QA/QC | QA/QC Package: | - | | | | | | | | (| | | | | ೦೦೪ | ıty | |
| ☐ Standard | dard | | X Level 4 (Full Validation) | | | | | | | SW | | | | | gsu | alin | |
| □ Other | | | | Sampler: | Tracy Payne | e - 919-561-7055 | | | | | | | | | | VIK: | (N |
| X EDD (Type) | (Type) | EXCEL | | On Ice: | X Yes | No D | | | | | | | (0) | | | / - · | 110 |
| | | | | Sample Temp | perature: 👟 | out Remaks | | | | | | | | | | wə | Y) |
| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HE 16/8/ | BTM+X3T8 BTM+X3T8 | 88108 H9T | odieM) H9T | EDB (Metho | RCRA 8 Me | Anions (F,Cl 8081 Pestic | OV) 80928 | :0728 (Semi- | General Ch | General Ch | Air Bubbles |
| 9/23/p | 0440 | H ₂ 0 | MW-31 | 40ml VOA-5 | 고 단 | 110 | | | ↓ | _ | + | _ | 1 | _ | | | <u>′</u> |
| | | H ₂ 0 | MW-31 | 250 ml amber-1 | Neat | 11/2 | | × | | | - | | | | | | |
| | | H ₂ O | MW-31 | 250 ml plastic-1 | HNO3 | all | | | | | × | | | | | | |
| | | H ₂ O | MW-31 | 125 ml plastic-1 | HNO ₃ | 1)2 | | | | | | | | × | × | | |
| . <u> </u> | | H ₂ O | MW-31 | 125 ml plastic-1 | H ₂ SO ₄ | 112 | | | | | | | | | × | | |
| \rightarrow | \rightarrow | H ₂ 0 | MW-31 | 500 ml plastic-1 | Neat | 112 | | | | | | | | | | × | |
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| | | | | | | | | | | | | | | | | | |
| Date: 8/25/9 | Time. }\$\f | Relinquished-by: | d-by: | Received by: | J. J. J. J. J. J. J. J. J. J. J. J. J. J | B/3/19 1546 | Remarks: | | ee Ar | ıalytic | ial M | thod | See Analytical Methods and Target Analytes. | Tarç | et A | naly | es. |
| Date: 0 | Time: | Relinquished by: | elinquished by: | Received by: | |) Date 1/19 03/2 4/19 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| Chain | Client: Weste | | Mailing Address: | | Phone #: | Email: gjmcca | QA/QC Package: | □ Standard | □ Other | X EDD (Type) | | Date Time | 8/23/P 1030 | | | | | → | | | | Date: Time: | | |
|-------------------------|-------------------------------|------------------|-----------------------|----------------------|------------------|--|----------------|-----------------------------|----------------------------|--------------|---------------------|--|------------------|-------------------|---------------------|---------------------|--------------------------------|---------------------|---|---|-------|----------------------|--|---|
| -of-Cu | ern - Blo | | | Bloom | 419-42 | rtney@ma | | | • | EXCEL | | Matrix | H ₂ 0 | H ₂ O | H ₂ 0 | H ₂ O | H ₂ 0 | H ₂ O | | | | Relinquished by: | E | |
| Chain-of-Custody Record | Western - Bloomfield Terminal | | 50 CR 4990 | Bloomfield, NM 87413 | 419-421-2338 | Email: gjmccartney@marathonpetroleum.com | | X Level 4 (Full Validation) | | | | Sample Request ID | MW-29 | MW-29 | MW-29 | MW-29 | MW-29 | MW-29 | | | | by: | inquished by: | |
| Turn-Around Time: | X Standard | Project Name: | | Project #: | | Project Mana | | | Sampler: | On Ice: | Sample Temperature: | Container Type and # | 40ml VOA-5 | 250 ml amber-1 | 250 ml plastic-1 | 125 ml plastic-1 | 125 ml plastic-1 | 500 ml plastic-1 | | | | Received by: | Received by: | 2 |
| Time: | □ Rush | : 2019 Annual GW | Sampling Event | | | ger: Gregor | | | Tracy Payn | X Yes | oerature: Se | Preservative Type | HCI | Neat | HNO3 | ^E ONH | H ₂ SO ₄ | Neat | | | | | 1 | , |
| | | nal GW | g Event | | | Project Manager: Gregory McCartney | | | Tracy Payne - 919-561-7055 | ON | See pa Remarks | HEAL NO. | -0.2.44 | 2/2 | 92 | 775 | 202 | 702 | | | | Date Time 546 | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | |
| | | | 4901 | Tel | | | (λ uc | as c | 9)F | ЧЧТ | .+∃ | 9TK+X3T8 9TM+X3T8 9 2108 H9T | | × | | | | | | | - | Remarks: | | |
| Ĭ | Y | * | 4901 Hawkins NE | 505-345-3975 | | | | | (I | .81 | ₽ pc | TPH (Metho | | | | | | | | | | See An | | |
| - | ANALYSIS | w.haller | - 1 | 10 | Ans | | | | IIS0 | 728 | 3 10 | PAH (8310 | | | × | | | | | | | alytica | | |
| HAII ENVIDONMENTAI | | Ψ | Albuquerque, NM 87109 | Fax 50 | Analysis Request | | | S' [†] O¢ | J, <u>s</u> O | N'ε | ON'I | CHO, TO, TO, TO, TO, TO, TO, TO, TO, TO, T | | | | | | | | | | Analytical Methods | | |
| | LABORATORY | ntal.co | lue, N | 505-345-4107 | quest | | | | | | | OV) 80928 | ₩ | | | | | | , | | | ds and | | |
| Σ | 080 | , ! E | 1871 | 4107 | | | | | | | | imə2) 0728 I bəvlossiQ | - | | | × | | | | | | d Tar | | |
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| 5 | -jain | ot-cu | Chain-of-Custody Record | Turn-Around 1 | Time: | | | | ¥ | HALL ENVIRONMENTAL | 2 | 2 | 2 | | ▼ | | |
| Client: | Neste | rn - Blo | Western - Bloomfield Terminal | X Standard | □ Rush | | | | A | ANALYSIS LABORATORY | SIS | 3 | BOI | 5 | 0 | . ≿ | |
| | | | | Project Name: | 2019 Annual GW | iual GW | | | WW | www.hallenvironmental.com | vironn | ental.c | L ES | i | | ! ! | |
| Mailing A | ddress | Mailing Address: 50 CR 4990 | 4990 | | Sampling Event | g Event | 49 | 4901 Hawkins NE | vkins N | 1 | anbngr | Albuquerque, NM 87109 | NM 87 | 109 | | | |
| | | Bloom | Bloomfield, NM 87413 | Project #: | | | <u>~</u> | Tel. 505-345-3975 | -345-3 | | Fax | Fax 505-345-4107 | 5-4107 | | | | |
| Phone #: | | 419-421-2338 | 1-2338 | | | | | | | Ana | lysis F | Analysis Request | it | | | | |
| Email: g | jmccari | tney@ma | Email: gjmccartney@marathonpetroleum.com | Project Manag | ger: Gregor | er: Gregory McCartney | (| ((| · | | | - 9 | | | z | | |
| QA/QC Package: | ckage: | | | | | | | NBC | | (| (⁵OS | CB. | | 001 | | | |
| ☐ Standard | ard | | X Level 4 (Full Validation) | | | | | 1/0 | | | | d 7 | | ysu | | | |
| □ Other | | | | Sampler. | Tracy Payn | Tracy Payne - 919-561-7055 | | | | | _ | 3808 | | | | (1 | (1 |
| X EDD (Type) | Type) | EXCEL | | On Ice: | ¥ Yes | oN □ | | | | | | 8 / 8 | (A | | | 4 40 | VI JC |
| | : | | | Tem | perature: See | 2 pg / Remars | | | | | | | | | | / // | ۱۱ (|
| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Tvne | l I | atm+x: atm+x: | 8015B | (Metho | 0168) I | lO,∃) and | Pestic | -iməS) (| solved I | eral Ch | 30 99116 | səlqqng |
| | | | | i ype alla # | 246 | 1968 E 73 | | | | | | | | | |] √! V | 1 IIV |
| 1 10/62/2 | 1135 | O ^z H | ES-WM | 40ml VOA-5 | HCI | SP | | × | | | | × | | | | | |
| | | H ₂ O | MW-53 | 250 ml amber-1 | Neat | 8/2 | | × | | | | | | ļ | | | T |
| | | H ₂ O | MW-53 | 250 ml plastic-1 | HNO3 | 703 | | | | × | | | | | | | 1 |
| | | H ₂ O | MW-53 | 125 ml plastic-1 | HNO3 | -d3 | | | | | | | | × | × | | T |
| | | H ₂ O | MW-53 | 125 ml plastic-1 | H ₂ SO₄ | SP2 | | | | | | | | × | | | Γ |
| -> | > | H ₂ O | MW-53 | 500 ml plastic-1 | Neat | ED2 | | | | | | | | <u> </u> | × | | T |
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| Date: | Time: | Relinquished by: | ph. | Received by: | | Date Time | Remarks: | | See Analytical Methods and Target Analytes. | ytica | Meth | ods a | –¦≝ Pe | | Anal | ytes. | |
| 423/19 | ጋዝር | 7 | 7 | | Llast | 8/23/19 1546 | | | | | | | | , | | , | |
| Date: T | Time: 7-40 | Relinquished by: | uished by: (ICL) (LES) | Received by: | h | Date Time (08/24/19) | | | | | | | | | | | |
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|) | Σ | 5 | | 7109 | 07 | | | | | | | | Dissolved I | <u> </u> | | | × | | | | | ſarg | |
| -1 | Ž | 0 | ΕO | ΣN | 505-345-4107 | st | | | | | (A | | | <u> </u> | | | | | | | | _ pu | |
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| | | S | nme | hero | × 50 | s Re | | | | | | | Anions (F,Cl | | | | | | | _ | | tho(| |
| | Z | SI | nviro | Albuquerque, NM 87109 | Fax | Analysis Request | | (108) | | | | | RCRA 8 Me | ļ | | × | | | | | | II Me | |
| | يّ | ANALYSIS | www.hallenvironmental.com | • | | An | | (8 | | | | | 0188) HA9 | | | | | | | | | /tica | |
| | HALL | Z | ww. | N SL | 5-39 | | | | | | | | EDB (Metho | | | | | | | | | ınalı | |
| | I | < | - | 4901 Hawkins NE | Tel. 505-345-3975 | | | | | (r. | 81 | ₽ pc | TPH (Metho | | | . | | | | | | өө д | |
| | | | | 01 H | <u>بر</u> 50 | | ë | /WBC | оы | ۵/e | ВО | ၅) : | 82108 H9T | × | × | | | | | | | | |
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| _ | | | | | | | | (120 |)8)s | B,ē | MT | .+ <u>∃</u> : | BTEX+MTB | | | | | | | | | | |
| | | | | | | | tney | | | 61-7055 | | femals) | HEAL No. | N S S | 215 | dis | 212 | Sp | 8 | | | $\frac{g}{h}$ | Time |
| | | | ual GW | y Event | | | y McCai | | | e - 919-5 | oN □ | | | | | | | | | | | Pate 8/22/ | Date |
| | Time: | □ Rush | 2019 Annual GW | Sampling Event | | | ger: Gregory McCartney | | | Tracy Payne - 919-561-7055 | Ø Yes | erature: Seo | Preservative Type | HCI | Neat | HNO3 | HNO3 | H ₂ SO ₄ | Neat | | | The state of the s | |
| | Turn-Around | X Standard | Project Name: | | Project #: | | Project Manag | | | Sampler: | On Ice: | Sample Temperature: See pa l | Container Type and # | 40ml VOA-5 | 250 ml amber-1 | 250 ml plastic-1 | 125 ml plastic-1 | 125 ml plastic-1 | 500 ml plastic-1 | | | Received by: | Received by: |
| | Chain-of-Custody Record | Western - Bloomfield Terminal | | 066 | Bloomfield, NM 87413 | 2338 | gimccartney@marathonpetroleum.com | | ★ Level 4 (ruii validation) | | | | Sample Request ID | MW-67 | MW-67 | MW-67 | MW-67 | MW-67 | MW-67 | | | y. | |
| | of-Cus | rn - Bloo | | Mailing Address: 50 CR 4990 | Bloomfie | 419-421-2338 | tney@mara | • | < | | EXCEL | | Matrix | H ₂ O | H ₂ O | H ₂ O | H ₂ 0 | H ₂ O | H ₂ O | | | Relinguierfearby: | Relinquished by: |
| | hain | Weste | | Address | | | gimccar | ackage: | פֿב | | (Type)_ | | Time | 1330 | | | | | > | | | Time: }SY\b | Time: / |
| | <u>ರ</u> | Client: | | Mailing / | | Phone #: | Email: ç | QA/QC Package: | L Standard | □ Other | X EDD (Type)_ | | Date | 8/23/8 | | | | | \rightarrow | | _ | Date: 0 | Date: |

14 OF 14

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| Client: | | rn - Bk | Western - Bloomfield Terminal | X Standard | □ Rush | | | | | ANALYSIS | i | SI | ! ≤ | LABORATORY | 2 | : 0 : H | , <u>Y</u> | |
| | | | | Project Name: 2019 Annual GW | 2019 Ann | ual GW | | | 5 | ww.h | allenv | ronm | www.hallenvironmental.com | L LIOS | |) ! | 1 | |
| Mailing | Mailing Address: | | 50 CR 4990 | | Sampling Event | g Event | 4 | 01 H | 4901 Hawkins NE | s NE | - AR | enbn | Albuquerque, NM 87109 | N N | 7109 | | | |
| | | Bloom | Bloomfield, NM 87413 | Project #: | | | F | el. 50 | Tel. 505-345-3975 | 397 | | Fax | 505-345-4107 | 5-410 | <u>/</u> | | | |
| Phone #: | <u></u> | 419-42 | 419-421-2338 | | | | | | | | ınal | | Request | st | | | | |
| Email: | gjmccar | rtney@m | Email: gjmccartney@marathonpetroleum.com | Project Manaç | ger: Gregor | Project Manager: Gregory McCartney | () | ((| | | | | | | | 7 | | |
| QA/QC F | QA/QC Package: | | | | | | | NRC | | | | (POS | .B.8 | | | | Λî | |
| □ Standard | dard | | X Level 4 (Full Validation) | | | | | N/O | | (SI) | | S' [†] Oc |)d 7 | | | | 111111 | |
| Other | <u> </u> | | | Sampler: | Tracy Payne | e - 919-561-7055 | | NDR | | | | ∃, _S C | 308 | | | | | (1 |
| X EDD (Type) | (Type)_ | EXCEL | | On Ice: | X Yes | □ No | | ЮЯ | | | | Ν'ε | 3 / 9 | (A | sls | | <i>,</i> | V 10 |
| | | | | Sample Temp | perature: Se | See pal Pemaks | | ອ) | | | | ON' | | | JəlV | | uie | Υ) |
| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | ш « | EX+MTB BTM+X3T | 8616B | PH (Metho | DH (8310 - | CRA 8 Me | Ю,4) anoin | 281 Pestic | -imə2) 072 | l bavlossi | eneral Ch | eneral Ch | ir Bubbles |
| 843/9 1430 | 1430 | H ₂ O | MW-68 | 40ml VOA-5 | 豆 | 716 | | Ι× | | | | \forall | | _ | a | _ | 5 | A |
| | | H ₂ O | MW-68 | 250 ml amber-1 | Neat | 92 | | × | | <u> </u> | | | | ļ, | | | <u> </u> | |
| | | H ₂ O | MW-68 | 250 ml plastic-1 | HNO3 | 97 | | | | | × | | | | | | <u> </u> | |
| | | H ₂ O | MW-68 | 125 ml plastic-1 | HNO3 | 912 | | | | | | <u> </u> | | | × | × | | |
| | | H ₂ O | MW-68 | 125 ml plastic-1 | H ₂ SO ₄ | 90 | | | | | | | | | | × | | |
| -> | \rightarrow | H ₂ O | MW-68 | 500 ml plastic-1 | Neat | 912 | | | | | | | | | | <u> </u> | × | |
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| 1/43/6 | ţ | 420 | TRIP BLANK | 40 M L 3 | HCI | 212 | | | | | | | | | | | - | |
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| 9 | Time: 546 | | 1 | Received by: | A | Date Time \$\\23.1/9 \SYV | Remarks: | | ee A | nalyt | cal | l eth | See Analytical Methods and Target Analytes. | L pu | arge | it An | alyte | ν _ο |
| Date: Time: | Time: | Re The second se | 7 | Received by: | | Date, Time | | | | | | | | | | | | _ |
| 1070 | ٠ | _ | | | إ | 70007 | | | | | | | | | | | | 7 |



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

September 09, 2019

Gregory J. McCartney
Western Refining Southwest, Inc Bloomfield
#50 CR 4990
Bloomfield, NM 87413
TEL:
FAX:

RE: 2019 Annual GW Sampling Event OrderNo.: 1908G31

Dear Gregory J. McCartney:

Hall Environmental Analysis Laboratory received 10 sample(s) on 8/28/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1908G31

Date Reported: 9/9/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc Bloomfi

Client Sample ID: CW 0+60

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/26/2019 8:55:00 AM

 Lab ID: 1908G31-001
 Matrix: AQUEOUS
 Received Date: 8/28/2019 8:15:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------|-------|----|---------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | Analys | t: BRM |
| Diesel Range Organics (DRO) | 0.70 | 0.40 | | mg/L | 1 | 9/3/2019 2:17:46 PM | 47204 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | mg/L | 1 | 9/3/2019 2:17:46 PM | 47204 |
| Surr: DNOP | 111 | 52.7-168 | | %Rec | 1 | 9/3/2019 2:17:46 PM | 47204 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | | Analys | t: CCM |
| Benzene | 1.0 | 1.0 | J | μg/L | 1 | 9/3/2019 1:49:00 PM | SL_W62 |
| Toluene | ND | 1.0 | | μg/L | 1 | 9/3/2019 1:49:00 PM | SL_W62 |
| Ethylbenzene | 4.1 | 1.0 | | μg/L | 1 | 9/3/2019 1:49:00 PM | SL_W62 |
| Methyl tert-butyl ether (MTBE) | 1.1 | 1.0 | | μg/L | 1 | 9/3/2019 1:49:00 PM | SL_W62 |
| Xylenes, Total | 1.3 | 1.5 | J | μg/L | 1 | 9/3/2019 1:49:00 PM | SL_W62 |
| Surr: 1,2-Dichloroethane-d4 | 89.4 | 70-130 | | %Rec | 1 | 9/3/2019 1:49:00 PM | SL_W62 |
| Surr: 4-Bromofluorobenzene | 93.1 | 70-130 | | %Rec | 1 | 9/3/2019 1:49:00 PM | SL_W62 |
| Surr: Dibromofluoromethane | 98.8 | 70-130 | | %Rec | 1 | 9/3/2019 1:49:00 PM | SL_W62 |
| Surr: Toluene-d8 | 138 | 70-130 | S | %Rec | 1 | 9/3/2019 1:49:00 PM | SL_W62 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 14

Lab Order 1908G31

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/9/2019

CLIENT: Western Refining Southwest, Inc Bloomfi

Client Sample ID: OW 25+70

 Project:
 2019 Annual GW Sampling Event
 Collection Date: 8/26/2019 11:50:00 AM

 Lab ID:
 1908G31-002
 Matrix: AQUEOUS
 Received Date: 8/28/2019 8:15:00 AM

Analyses Result **RL Oual Units DF** Date Analyzed **Batch EPA METHOD 8015D: DIESEL RANGE** Analyst: BRM Diesel Range Organics (DRO) ND 0.40 mg/L 1 9/3/2019 3:30:54 PM 47204 Motor Oil Range Organics (MRO) ND 2.5 mg/L 1 9/3/2019 3:30:54 PM 47204 Surr: DNOP %Rec 47204 119 52.7-168 1 9/3/2019 3:30:54 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) 0.052 0.050 9/3/2019 9:44:35 PM G62609 mg/L 1 Surr: BFB 106 65.8-143 %Rec 1 9/3/2019 9:44:35 PM G62609 **EPA METHOD 8260: VOLATILES SHORT LIST** Analyst: CCM Benzene ND 1.0 μg/L 9/3/2019 3:01:00 PM SL_W62 1 Toluene ND SL_W62 1.0 μg/L 1 9/3/2019 3:01:00 PM Ethylbenzene ND 1.0 μg/L 1 9/3/2019 3:01:00 PM SL W62 Methyl tert-butyl ether (MTBE) ND μg/L 9/3/2019 3:01:00 PM SL_W62 1.0 1 Xylenes, Total 0.49 1.5 μg/L 1 9/3/2019 3:01:00 PM SL W62 SL_W62 Surr: 1,2-Dichloroethane-d4 98.9 70-130 %Rec 1 9/3/2019 3:01:00 PM Surr: 4-Bromofluorobenzene 100 70-130 %Rec 1 9/3/2019 3:01:00 PM SL_W62 Surr: Dibromofluoromethane 102 70-130 %Rec 1 9/3/2019 3:01:00 PM SL_W62 Surr: Toluene-d8 92.6 70-130 %Rec 9/3/2019 3:01:00 PM SL_W62

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 14

Lab Order 1908G31

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/9/2019

CLIENT: Western Refining Southwest, Inc Bloomfi

Client Sample ID: DUPLICATE #3

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/26/2019

Lab ID: 1908G31-003 **Matrix:** AQUEOUS **Received Date:** 8/28/2019 8:15:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------|-------|----|----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | Analyst | : BRM |
| Diesel Range Organics (DRO) | ND | 0.40 | | mg/L | 1 | 9/3/2019 4:19:52 PM | 47204 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | mg/L | 1 | 9/3/2019 4:19:52 PM | 47204 |
| Surr: DNOP | 123 | 52.7-168 | | %Rec | 1 | 9/3/2019 4:19:52 PM | 47204 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | Analyst | : NSB |
| Gasoline Range Organics (GRO) | 0.073 | 0.050 | | mg/L | 1 | 9/3/2019 10:08:05 PM | G62609 |
| Surr: BFB | 99.8 | 65.8-143 | | %Rec | 1 | 9/3/2019 10:08:05 PM | G62609 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | | Analyst | : CCM |
| Benzene | ND | 1.0 | | μg/L | 1 | 9/3/2019 3:26:00 PM | SL_W62 |
| Toluene | ND | 1.0 | | μg/L | 1 | 9/3/2019 3:26:00 PM | SL_W62 |
| Ethylbenzene | ND | 1.0 | | μg/L | 1 | 9/3/2019 3:26:00 PM | SL_W62 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | μg/L | 1 | 9/3/2019 3:26:00 PM | SL_W62 |
| Xylenes, Total | 0.51 | 1.5 | J | μg/L | 1 | 9/3/2019 3:26:00 PM | SL_W62 |
| Surr: 1,2-Dichloroethane-d4 | 102 | 70-130 | | %Rec | 1 | 9/3/2019 3:26:00 PM | SL_W62 |
| Surr: 4-Bromofluorobenzene | 99.2 | 70-130 | | %Rec | 1 | 9/3/2019 3:26:00 PM | SL_W62 |
| Surr: Dibromofluoromethane | 102 | 70-130 | | %Rec | 1 | 9/3/2019 3:26:00 PM | SL_W62 |
| Surr: Toluene-d8 | 94.2 | 70-130 | | %Rec | 1 | 9/3/2019 3:26:00 PM | SL_W62 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908G31

Date Reported: 9/9/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc Bloomfi

Client Sample ID: OW 8+10

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/27/2019 7:50:00 AM

 Lab ID: 1908G31-004
 Matrix: AQUEOUS
 Received Date: 8/28/2019 8:15:00 AM

| Analyses | Result | RL (| Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------------|----|----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Analyst | :: BRM |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 9/3/2019 4:44:13 PM | 47204 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 9/3/2019 4:44:13 PM | 47204 |
| Surr: DNOP | 121 | 52.7-168 | %Rec | 1 | 9/3/2019 4:44:13 PM | 47204 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst | : NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 9/3/2019 10:31:42 PM | G62609 |
| Surr: BFB | 108 | 65.8-143 | %Rec | 1 | 9/3/2019 10:31:42 PM | G62609 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | : CCM |
| Benzene | ND | 1.0 | μg/L | 1 | 9/3/2019 3:50:00 PM | SL_W62 |
| Toluene | ND | 1.0 | μg/L | 1 | 9/3/2019 3:50:00 PM | SL_W62 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 9/3/2019 3:50:00 PM | SL_W62 |
| Methyl tert-butyl ether (MTBE) | 1.6 | 1.0 | μg/L | 1 | 9/3/2019 3:50:00 PM | SL_W62 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 9/3/2019 3:50:00 PM | SL_W62 |
| Surr: 1,2-Dichloroethane-d4 | 103 | 70-130 | %Rec | 1 | 9/3/2019 3:50:00 PM | SL_W62 |
| Surr: 4-Bromofluorobenzene | 96.5 | 70-130 | %Rec | 1 | 9/3/2019 3:50:00 PM | SL_W62 |
| Surr: Dibromofluoromethane | 106 | 70-130 | %Rec | 1 | 9/3/2019 3:50:00 PM | SL_W62 |
| Surr: Toluene-d8 | 91.5 | 70-130 | %Rec | 1 | 9/3/2019 3:50:00 PM | SL_W62 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Lab Order 1908G31

Date Reported: 9/9/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc Bloomfi

Client Sample ID: OW 19+50

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/27/2019 8:10:00 AM

 Lab ID: 1908G31-005
 Matrix: AQUEOUS
 Received Date: 8/28/2019 8:15:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------|-------|----|----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | Analyst | : BRM |
| Diesel Range Organics (DRO) | 0.19 | 0.40 | J | mg/L | 1 | 9/3/2019 5:08:42 PM | 47204 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | mg/L | 1 | 9/3/2019 5:08:42 PM | 47204 |
| Surr: DNOP | 121 | 52.7-168 | | %Rec | 1 | 9/3/2019 5:08:42 PM | 47204 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | Analyst | : NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | | mg/L | 1 | 9/3/2019 10:55:13 PM | G62609 |
| Surr: BFB | 105 | 65.8-143 | | %Rec | 1 | 9/3/2019 10:55:13 PM | G62609 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | | Analyst | : CCM |
| Benzene | ND | 1.0 | | μg/L | 1 | 9/3/2019 4:15:00 PM | SL_W62 |
| Toluene | ND | 1.0 | | μg/L | 1 | 9/3/2019 4:15:00 PM | SL_W62 |
| Ethylbenzene | ND | 1.0 | | μg/L | 1 | 9/3/2019 4:15:00 PM | SL_W62 |
| Methyl tert-butyl ether (MTBE) | 5.1 | 1.0 | | μg/L | 1 | 9/3/2019 4:15:00 PM | SL_W62 |
| Xylenes, Total | ND | 1.5 | | μg/L | 1 | 9/3/2019 4:15:00 PM | SL_W62 |
| Surr: 1,2-Dichloroethane-d4 | 103 | 70-130 | | %Rec | 1 | 9/3/2019 4:15:00 PM | SL_W62 |
| Surr: 4-Bromofluorobenzene | 96.3 | 70-130 | | %Rec | 1 | 9/3/2019 4:15:00 PM | SL_W62 |
| Surr: Dibromofluoromethane | 103 | 70-130 | | %Rec | 1 | 9/3/2019 4:15:00 PM | SL_W62 |
| Surr: Toluene-d8 | 92.9 | 70-130 | | %Rec | 1 | 9/3/2019 4:15:00 PM | SL_W62 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 1908G31

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/9/2019

CLIENT: Western Refining Southwest, Inc Bloomfi

Client Sample ID: OW 22+00

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/27/2019 8:25:00 AM

 Lab ID: 1908G31-006
 Matrix: AQUEOUS
 Received Date: 8/28/2019 8:15:00 AM

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------------|----|----------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Analys | BRM |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 9/3/2019 5:33:13 PM | 47204 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 9/3/2019 5:33:13 PM | 47204 |
| Surr: DNOP | 112 | 52.7-168 | %Rec | 1 | 9/3/2019 5:33:13 PM | 47204 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analys | :: NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 9/3/2019 11:18:42 PM | G62609 |
| Surr: BFB | 115 | 65.8-143 | %Rec | 1 | 9/3/2019 11:18:42 PM | G62609 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analys | : CCM |
| Benzene | ND | 1.0 | μg/L | 1 | 9/3/2019 4:39:00 PM | SL_W62 |
| Toluene | ND | 1.0 | μg/L | 1 | 9/3/2019 4:39:00 PM | SL_W62 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 9/3/2019 4:39:00 PM | SL_W62 |
| Methyl tert-butyl ether (MTBE) | 1.2 | 1.0 | μg/L | 1 | 9/3/2019 4:39:00 PM | SL_W62 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 9/3/2019 4:39:00 PM | SL_W62 |
| Surr: 1,2-Dichloroethane-d4 | 103 | 70-130 | %Rec | 1 | 9/3/2019 4:39:00 PM | SL_W62 |
| Surr: 4-Bromofluorobenzene | 95.4 | 70-130 | %Rec | 1 | 9/3/2019 4:39:00 PM | SL_W62 |
| Surr: Dibromofluoromethane | 106 | 70-130 | %Rec | 1 | 9/3/2019 4:39:00 PM | SL_W62 |
| Surr: Toluene-d8 | 93.3 | 70-130 | %Rec | 1 | 9/3/2019 4:39:00 PM | SL_W62 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Received Date: 8/28/2019 8:15:00 AM

Lab Order 1908G31

Date Reported: 9/9/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc Bloomfi Client Sample ID: OW 23+90

Project: 2019 Annual GW Sampling Event Collection Date: 8/27/2019 8:45:00 AM Matrix: AQUEOUS

Analyses Result **RL Oual Units DF** Date Analyzed **Batch EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB 9/3/2019 11:42:15 PM Gasoline Range Organics (GRO) 0.027 0.050 mg/L 1 G62609 Surr: BFB 115 65.8-143 %Rec 1 9/3/2019 11:42:15 PM G62609 **EPA METHOD 8260: VOLATILES SHORT LIST** Analyst: CCM 9/3/2019 5:04:00 PM SL_W62 Benzene ND 1.0 μg/L 1 Toluene ND 9/3/2019 5:04:00 PM SL W62 1.0 μg/L 1 Ethylbenzene ND 1.0 μg/L 1 9/3/2019 5:04:00 PM SL_W62 Methyl tert-butyl ether (MTBE) ND 1.0 μg/L 1 9/3/2019 5:04:00 PM SL_W62 Xylenes, Total ND 1.5 μg/L 1 9/3/2019 5:04:00 PM SL_W62 Surr: 1,2-Dichloroethane-d4 105 70-130 %Rec 1 9/3/2019 5:04:00 PM SL_W62 Surr: 4-Bromofluorobenzene 99.7 70-130 %Rec 1 9/3/2019 5:04:00 PM SL_W62 Surr: Dibromofluoromethane 70-130 SL_W62 105 %Rec 1 9/3/2019 5:04:00 PM Surr: Toluene-d8 93.3 70-130 %Rec 9/3/2019 5:04:00 PM SL_W62

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

Lab ID:

1908G31-007

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

Lab Order **1908G31**

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/9/2019

Client Sample ID: CW 25+95

CLIENT: Western Refining Southwest, Inc Bloomfi

Project: 2019 Annual GW Sampling Event Collection Date: 8/27/2019 9:00:00 AM

Lab ID: 1908G31-008 **Matrix:** AQUEOUS **Received Date:** 8/28/2019 8:15:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|---------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | | Analys | : BRM |
| Diesel Range Organics (DRO) | ND | 0.40 | | mg/L | 1 | 9/3/2019 5:57:44 PM | 47204 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | mg/L | 1 | 9/3/2019 5:57:44 PM | 47204 |
| Surr: DNOP | 124 | 52.7-168 | | %Rec | 1 | 9/3/2019 5:57:44 PM | 47204 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | | Analys | : CCM |
| Benzene | ND | 1.0 | | μg/L | 1 | 9/4/2019 1:59:00 PM | SL_W62 |
| Toluene | ND | 1.0 | | μg/L | 1 | 9/4/2019 1:59:00 PM | SL_W62 |
| Ethylbenzene | ND | 1.0 | | μg/L | 1 | 9/4/2019 1:59:00 PM | SL_W62 |
| Methyl tert-butyl ether (MTBE) | 0.67 | 1.0 | J | μg/L | 1 | 9/4/2019 1:59:00 PM | SL_W62 |
| Xylenes, Total | ND | 1.5 | | μg/L | 1 | 9/4/2019 1:59:00 PM | SL_W62 |
| Surr: 1,2-Dichloroethane-d4 | 94.0 | 70-130 | | %Rec | 1 | 9/4/2019 1:59:00 PM | SL_W62 |
| Surr: 4-Bromofluorobenzene | 102 | 70-130 | | %Rec | 1 | 9/4/2019 1:59:00 PM | SL_W62 |
| Surr: Dibromofluoromethane | 93.7 | 70-130 | | %Rec | 1 | 9/4/2019 1:59:00 PM | SL_W62 |
| Surr: Toluene-d8 | 89.2 | 70-130 | | %Rec | 1 | 9/4/2019 1:59:00 PM | SL_W62 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1908G31**Date Reported: **9/9/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc Bloomfi

Client Sample ID: FIELD BLANK #3

Project: 2019 Annual GW Sampling Event **Collection Date:** 8/27/2019 9:08:00 AM

Lab ID: 1908G31-009 **Matrix:** AQUEOUS **Received Date:** 8/28/2019 8:15:00 AM

| Analyses | Result | RL Qu | al Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|----------|----|---------------------|--------|
| EPA METHOD 8015D: DIESEL RANGE | | | | | Analyst | : BRM |
| Diesel Range Organics (DRO) | ND | 0.40 | mg/L | 1 | 9/3/2019 6:22:17 PM | 47204 |
| Motor Oil Range Organics (MRO) | ND | 2.5 | mg/L | 1 | 9/3/2019 6:22:17 PM | 47204 |
| Surr: DNOP | 116 | 52.7-168 | %Rec | 1 | 9/3/2019 6:22:17 PM | 47204 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | : CCM |
| Benzene | ND | 1.0 | μg/L | 1 | 9/3/2019 6:17:00 PM | SL_W62 |
| Toluene | ND | 1.0 | μg/L | 1 | 9/3/2019 6:17:00 PM | SL_W62 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 9/3/2019 6:17:00 PM | SL_W62 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 9/3/2019 6:17:00 PM | SL_W62 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 9/3/2019 6:17:00 PM | SL_W62 |
| Surr: 1,2-Dichloroethane-d4 | 106 | 70-130 | %Rec | 1 | 9/3/2019 6:17:00 PM | SL_W62 |
| Surr: 4-Bromofluorobenzene | 94.8 | 70-130 | %Rec | 1 | 9/3/2019 6:17:00 PM | SL_W62 |
| Surr: Dibromofluoromethane | 108 | 70-130 | %Rec | 1 | 9/3/2019 6:17:00 PM | SL_W62 |
| Surr: Toluene-d8 | 90.8 | 70-130 | %Rec | 1 | 9/3/2019 6:17:00 PM | SL_W62 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **1908G31**Date Reported: **9/9/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc Bloomfi

Client Sample ID: TRIP BLANK

Project: 2019 Annual GW Sampling Event **Collection Date:**

Lab ID: 1908G31-010 **Matrix:** AQUEOUS **Received Date:** 8/28/2019 8:15:00 AM

| Analyses | Result | RL | Qual Units | DF | Date Analyzed | Batch |
|---------------------------------------|--------|----------|------------|----|---------------------|--------|
| EPA METHOD 8015D: GASOLINE RANGE | | | | | Analyst | : NSB |
| Gasoline Range Organics (GRO) | ND | 0.050 | mg/L | 1 | 9/4/2019 1:16:22 AM | G62609 |
| Surr: BFB | 103 | 65.8-143 | %Rec | 1 | 9/4/2019 1:16:22 AM | G62609 |
| EPA METHOD 8260: VOLATILES SHORT LIST | | | | | Analyst | : CCM |
| Benzene | ND | 1.0 | μg/L | 1 | 9/3/2019 6:41:00 PM | SL_W62 |
| Toluene | ND | 1.0 | μg/L | 1 | 9/3/2019 6:41:00 PM | SL_W62 |
| Ethylbenzene | ND | 1.0 | μg/L | 1 | 9/3/2019 6:41:00 PM | SL_W62 |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | μg/L | 1 | 9/3/2019 6:41:00 PM | SL_W62 |
| Xylenes, Total | ND | 1.5 | μg/L | 1 | 9/3/2019 6:41:00 PM | SL_W62 |
| Surr: 1,2-Dichloroethane-d4 | 104 | 70-130 | %Rec | 1 | 9/3/2019 6:41:00 PM | SL_W62 |
| Surr: 4-Bromofluorobenzene | 95.2 | 70-130 | %Rec | 1 | 9/3/2019 6:41:00 PM | SL_W62 |
| Surr: Dibromofluoromethane | 106 | 70-130 | %Rec | 1 | 9/3/2019 6:41:00 PM | SL_W62 |
| Surr: Toluene-d8 | 93.5 | 70-130 | %Rec | 1 | 9/3/2019 6:41:00 PM | SL_W62 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1908G31**

09-Sep-19

Client: Western Refining Southwest, Inc Bloomfield

Project: 2019 Annual GW Sampling Event

| Sample ID: 1908G31-001BMS | SampT | ype: MS | 1 | Tes | tCode: EF | PA Method | 8015D: Diese | l Range | | |
|-----------------------------|----------------|------------------|-----------|-------------|------------------|-----------|--------------|---------|----------|------|
| Client ID: CW 0+60 | Batch | 1D: 47 2 | 204 | F | tunNo: 62 | 2625 | | | | |
| Prep Date: 8/30/2019 | Analysis D | ate: 9/ 3 | 3/2019 | S | SeqNo: 2 | 131977 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 3.7 | 0.40 | 2.500 | 0.6979 | 121 | 68.3 | 147 | | | |
| Surr: DNOP | 0.29 | | 0.2500 | | 116 | 52.7 | 168 | | | |
| Sample ID: 1908G31-001BMS | D SampT | ype: MS | SD . | Tes | tCode: EF | PA Method | 8015D: Diese | I Range | · | · |

| Client ID: CW 0+60 | Batch | ID: 47 2 | 204 | F | RunNo: 6 | 2625 | | J | | |
|-----------------------------|------------|------------------|-----------|-------------|----------|----------|-------------|------|----------|------|
| Prep Date: 8/30/2019 | Analysis D | ate: 9/ 3 | 3/2019 | S | SeqNo: 2 | 131978 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 3.5 | 0.40 | 2.500 | 0.6979 | 113 | 68.3 | 147 | 5.20 | 20 | |
| Surr: DNOP | 0.27 | | 0.2500 | | 108 | 52.7 | 168 | 0 | 0 | |

| Sample ID: LCS-47204 | SampT | ype: LC | S | Tes | tCode: El | PA Method | 8015D: Diese | l Range | | |
|-----------------------------|------------|----------------|-----------|-------------|-----------|-----------|--------------|---------|----------|------|
| Client ID: LCSW | Batch | 1D: 47 | 204 | F | RunNo: 6 | 2625 | | | | |
| Prep Date: 8/30/2019 | Analysis D | ate: 9/ | 3/2019 | S | SeqNo: 2 | 132011 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 2.6 | 0.40 | 2.500 | 0 | 105 | 66.7 | 148 | | | |
| Surr: DNOP | 0.25 | | 0.2500 | | 98.5 | 52.7 | 168 | | | |

| Sample ID: MB-47204 | SampT | уре: МЕ | BLK | Tes | tCode: El | PA Method | 8015D: Diese | I Range | | |
|--------------------------------|------------|-----------------|-----------|-------------|-----------|-----------|--------------|---------|----------|------|
| Client ID: PBW | Batcl | n ID: 47 | 204 | F | RunNo: 6 | 2625 | | | | |
| Prep Date: 8/30/2019 | Analysis D | oate: 9/ | 3/2019 | 5 | SeqNo: 2 | 132013 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | ND | 0.40 | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 2.5 | | | | | | | | |
| Surr: DNOP | 0.54 | | 0.5000 | | 109 | 52.7 | 168 | | | |

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908G31**

09-Sep-19

Client: Western Refining Southwest, Inc Bloomfield

Project: 2019 Annual GW Sampling Event

Sample ID: RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBW Batch ID: G62609 RunNo: 62609

Prep Date: Analysis Date: 9/3/2019 SeqNo: 2130655 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 0.050

Surr: BFB 20 20.00 100 65.8 143

Sample ID: 2.5UG GRO LCS SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSW Batch ID: G62609 RunNo: 62609

Prep Date: Analysis Date: 9/3/2019 SeqNo: 2130656 Units: mg/L

LowLimit Analyte Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 0.45 0.050 0.5000 0 90.8 73.6 119 Surr: BFB 20.00 65.8 23 113 143

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

9.7

9.4

WO#: **1908G31**

09-Sep-19

Client: Western Refining Southwest, Inc Bloomfield

Project: 2019 Annual GW Sampling Event

| | | 5 OHOIT E | 8260: Volatile | | | | U | уре. с | SampT | Sample ID: 100ng lcs |
|------|---------------------|------------|--|--|--|-------------|--|--|---|--|
| | | | | 2593 | RunNo: 6 | F | _W62593 | h ID: SL | Batcl | Client ID: LCSW |
| | | | Units: µg/L | 132411 | SeqNo: 2 | S | 3/2019 | Date: 9/ | Analysis D | Prep Date: |
| Qual | RPDLimit | %RPD | HighLimit | LowLimit | %REC | SPK Ref Val | SPK value | PQL | Result | Analyte |
| | | | 130 | 70 | 99.1 | 0 | 20.00 | 1.0 | 20 | Benzene |
| | | | 130 | 70 | 99.4 | 0 | 20.00 | 1.0 | 20 | Toluene |
| | | | 130 | 70 | 94.6 | | 10.00 | | 9.5 | Surr: 1,2-Dichloroethane-d4 |
| | | | 130 | 70 | 97.2 | | 10.00 | | 9.7 | Surr: 4-Bromofluorobenzene |
| | | | 130 | 70 | 96.9 | | 10.00 | | 9.7 | Surr: Dibromofluoromethane |
| | | 130 | 70 | 94.8 | | 10.00 | | 9.5 | Surr: Toluene-d8 | |
| | | | | | | | | | | |
| | ist | s Short Li | 8260: Volatile | PA Method | tCode: El | Tes | BLK | Гуре: МЕ | SampT | Sample ID: RB |
| | ist | s Short Li | 8260: Volatile | | tCode: El RunNo: 6 2 | | BLK _W62593 | | | Sample ID: RB Client ID: PBW |
| | ist | s Short Li | 8260: Volatile | 2593 | | F | _W62593 | h ID: SL | | · |
| Qual | ist RPDLimit | s Short Li | | 2593 | RunNo: 6 2 | F | _W62593 3/2019 | h ID: SL | Batcl | Client ID: PBW |
| Qual | | | Units: µg/L | 2593 132412 | RunNo: 6 2 SeqNo: 2 1 | F | _W62593 3/2019 | h ID: SL Date: 9/ | Batcl Analysis D | Client ID: PBW Prep Date: |
| Qual | | | Units: µg/L | 2593 132412 | RunNo: 6 2 SeqNo: 2 1 | F | _W62593 3/2019 | h ID: SL Date: 9/ | Batcl Analysis D Result | Client ID: PBW Prep Date: Analyte |
| Qual | | | Units: µg/L | 2593 132412 | RunNo: 6 2 SeqNo: 2 1 | F | _W62593 3/2019 | h ID: SL Date: 9/ PQL 1.0 | Batcl Analysis E Result ND | Client ID: PBW Prep Date: Analyte Benzene |
| Qual | | | Units: µg/L | 2593 132412 | RunNo: 6 2 SeqNo: 2 1 | F | _W62593 3/2019 | PQL 1.0 | Batcl Analysis D Result ND ND | Client ID: PBW Prep Date: Analyte Benzene Toluene |
| Qual | | | Units: µg/L | 2593 132412 | RunNo: 6 2 SeqNo: 2 1 | F | _W62593 3/2019 | PQL 1.0 1.0 | Batcl Analysis D Result ND ND ND | Client ID: PBW Prep Date: Analyte Benzene Toluene Ethylbenzene |
| Qual | | | Units: µg/L | 2593 132412 | RunNo: 6 2 SeqNo: 2 1 | F | _W62593 3/2019 | PQL 1.0 1.0 1.0 | Result ND ND ND ND ND ND ND ND | Client ID: PBW Prep Date: Analyte Benzene Toluene Ethylbenzene Methyl tert-butyl ether (MTBE) |
| | RPDLimit | %RPD | HighLimit 130 130 130 130 130 130 130 | 132411 LowLimit 70 70 70 70 70 70 | %REC 99.1 99.4 94.6 97.2 96.9 | SPK Ref Val | 3/2019 SPK value 20.00 20.00 10.00 10.00 10.00 | PQL 1.0 | Analysis D Result 20 20 9.5 9.7 9.7 | Prep Date: Analyte Benzene Toluene Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene Surr: Dibromofluoromethane |

| Sample ID: 1908G31-001ams | s Samp | Гуре: М | 3 | Tes | tCode: El | PA Method | 8260: Volatile | es Short L | .ist | |
|-----------------------------|------------|----------|-----------|-------------|-----------|-----------|----------------|------------|----------|------|
| Client ID: CW 0+60 | Batc | h ID: SL | _W62593 | F | RunNo: 6 | 2593 | | | | |
| Prep Date: | Analysis [| Date: 9/ | 3/2019 | 9 | SeqNo: 2 | 132414 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 22 | 1.0 | 20.00 | 0.9960 | 103 | 70 | 130 | | | |
| Toluene | 20 | 1.0 | 20.00 | 0 | 99.8 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.1 | | 10.00 | | 90.6 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.3 | | 10.00 | | 93.4 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.8 | | 10.00 | | 97.8 | 70 | 130 | | | |
| Surr: Toluene-d8 | 16 | | 10.00 | | 158 | 70 | 130 | | | S |

10.00

10.00

| Sample ID: 1908G31-001ams | d SampT | уре: М \$ | SD | Tes | tCode: El | PA Method | 8260: Volatile | es Short L | .ist | |
|---------------------------|----------------|------------------|-----------|-------------|-----------|-----------|----------------|------------|----------|------|
| Client ID: CW 0+60 | Batch | ID: SL | _W62593 | F | RunNo: 6 | 2593 | | | | |
| Prep Date: | Analysis D | ate: 9/ | 3/2019 | S | SeqNo: 2 | 132415 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 20 | 1.0 | 20.00 | 0.9960 | 97.5 | 70 | 130 | 5.24 | 20 | |

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix

Surr: Dibromofluoromethane

Surr: Toluene-d8

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

97.4

93.8

70

70

130

130

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 13 of 14

Hall Environmental Analysis Laboratory, Inc.

WO#: 1908G31

09-Sep-19

Client: Western Refining Southwest, Inc Bloomfield

Project: 2019 Annual GW Sampling Event

| Sample ID: 1908G31-001am | sd SampT | уре: М S | SD | Tes | tCode: El | PA Method | 8260: Volatile | s Short L | .ist | |
|-----------------------------|-----------------|------------------|-----------|-------------|-----------|-----------|----------------|-----------|----------|------|
| Client ID: CW 0+60 | Batch | ID: SL | _W62593 | F | RunNo: 6 | 2593 | | | | |
| Prep Date: | Analysis D | ate: 9/ 3 | 3/2019 | S | SeqNo: 2 | 132415 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Toluene | 19 | 1.0 | 20.00 | 0 | 94.6 | 70 | 130 | 5.32 | 20 | |
| Surr: 1,2-Dichloroethane-d4 | 9.2 | | 10.00 | | 92.2 | 70 | 130 | 0 | 0 | |
| Surr: 4-Bromofluorobenzene | 9.4 | | 10.00 | | 94.2 | 70 | 130 | 0 | 0 | |
| Surr: Dibromofluoromethane | 9.8 | | 10.00 | | 97.8 | 70 | 130 | 0 | 0 | |
| Surr: Toluene-d8 | 16 | | 10.00 | | 156 | 70 | 130 | 0 | 0 | S |

| Sample ID: 100ng Ics | SampT | ype: LC | S | Tes | tCode: El | PA Method | 8260: Volatile | s Short L | .ist | |
|-----------------------------|------------|----------|-----------|-------------|-----------|-----------|----------------|-----------|----------|------|
| Client ID: LCSW | Batch | n ID: SL | _W62628 | F | RunNo: 6 | 2628 | | | | |
| Prep Date: | Analysis D | oate: 9/ | 4/2019 | 5 | SeqNo: 2 | 132823 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 20 | 1.0 | 20.00 | 0 | 102 | 70 | 130 | | | |
| Toluene | 19 | 1.0 | 20.00 | 0 | 95.9 | 70 | 130 | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.3 | | 10.00 | | 93.2 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.7 | | 10.00 | | 96.9 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.5 | | 10.00 | | 95.1 | 70 | 130 | | | |
| Surr: Toluene-d8 | 8.9 | | 10.00 | | 88.8 | 70 | 130 | | | |

| Sample ID: rb | SampT | уре: МЕ | 3LK | Tes | tCode: El | PA Method | 8260: Volatile | s Short L | .ist | |
|--------------------------------|------------|----------------|-----------|-------------|-----------|-----------|----------------|-----------|----------|------|
| Client ID: PBW | Batch | ı ID: SL | _W62628 | R | RunNo: 62 | 2628 | | | | |
| Prep Date: | Analysis D | ate: 9/ | 4/2019 | S | SeqNo: 2 | 132828 | Units: µg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 1.5 | | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 9.5 | | 10.00 | | 94.6 | 70 | 130 | | | |
| Surr: 4-Bromofluorobenzene | 9.6 | | 10.00 | | 96.2 | 70 | 130 | | | |
| Surr: Dibromofluoromethane | 9.6 | | 10.00 | | 96.3 | 70 | 130 | | | |
| Surr: Toluene-d8 | 8.8 | | 10.00 | | 87.7 | 70 | 130 | | | |

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

Reporting Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Southw Work Order Number: 1908G31 RcptNo: 1 Received By: **Desiree Dominguez** 8/28/2019 8:15:00 AM Completed By: Anne Thorne 8/28/2019 11:01:24 AM Reviewed By: Chain of Custody 1. Is Chain of Custody complete? Yes 🗸 No 🗌 Not Present 2 How was the sample delivered? Courier 3. Was an attempt made to cool the samples? No 🗌 Yes 🗸 NA 🗌 No 🗌 4. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 NA 🗍 Yes 🗸 No 🗆 Sample(s) in proper container(s)? No 🗔 6. Sufficient sample volume for indicated test(s)? 7. Are samples (except VOA and ONG) properly preserved? No 🗌 Yes 🗹 No 🗹 8. Was preservative added to bottles? Yes 🗌 NA 🗌 9. VOA vials have zero headspace? Yes 🗹 No \square No VOA Vials Yes 10. Were any sample containers received broken? No 🗹 # of preserved bottles checked 11. Does paperwork match bottle labels? Yes 🗸 No 🗌 for pH: 2 or >12 unless noted) (Note discrepancies on chain of custody) 12. Are matrices correctly identified on Chain of Custody? Yes 🗹 No 🗔 13, is it clear what analyses were requested? Yes 🗸 No. 🗌 829-15 14. Were all holding times able to be met? No 🗌 Checked by: Yes 🗸 (If no, notify customer for authorization.) Special Handling (if applicable) Yes 🗌 15. Was client notified of all discrepancies with this order? No 🗌 NA 🗹 Person Notified: Date | By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: 16. Additional remarks: CUSTODY SEALS INTACT ON SAMPLE BOTTLES/at 8/28/19 17. Cooler Information Cooler No Temp °C Condition Seal Intact Seal No Seal Date 2.9 Good Yes

7 0 9

| Project #: Project Wanager: Gregory McCartney Project Manager: Gregory McCartney Sampler: Tracy Payne - 919-561-7055 On Ice: & Yes On No Sample Temperature: 3, 3 - 0, 4 = 2, 9 c Sample Temperature: 3, 3 - 0, 4 = 2, 9 c Type and # Type 40m VOA-5 HCI Z50 M-1 Aunager: Cregory McCartney Anni VOA-5 HCI Z50 M-1 Z50 | Chain-of-Custody Record | Turn-Around Time: X Standard Rush Project Name: 2019 Annual GW | h nual GW | | HALL ANAL | TALL ENVIRON NALYSIS LABC | VVII | ROI LAB | HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com | - FI | 스 H 첫 | |
|--|-----------------------------------|--|-------------------|----------|--------------|---------------------------|----------|------------|--|------|----------|-------------|
| Project #: Container Preserve by: Project #: Project #: Project #: Project #: Project Manager: Gregory McCartney Project McCartney | | Samplir | ng Event | 4901 H | awkins N | E - AR | ndnerd | Me, ⊠ | √187109 | • | | |
| Analysis Tenger Menager: Gregory McCartney Sample: Tracey Payme - 319-561-7056 Samp | Bloomfield, NM 87413 | roject #: | | Tel. 5 | 5-345-39 | 75 | ax 50. | 5-345- | 4107 | | | |
| ## Project Manager: Gregory McCartney Sample: Tracy Payne - 919-561-7066 Sample: | | | | | | Analy | | quest | | | | |
| Sampler Tracy Payme - 919-561-7055 Sampler Tracy | gjmccartney@marathonpetroleum.com | roject Manager: Grego l | ry McCartney | | | | | | | | | |
| Sample: Tracy Payne - 919-561-7055 On lose: & Yes Sample: Teacy Payne - 919-561-7055 Sample: Temperature: 3.2-0.4 = 2.9 = 61-7055 Container Preservative A formi VOA-5 HCI Appearant | ull Validation) | | | (juo si | | (SI | | | | | | |
| Container Cont | | | ne - 919-561-7055 | 8Đ)I | (1 | NIS | | | | | | (|
| Sample Temperature: 3.3-0.4 ° 2.9 ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° | | | No 🗆 | НЫ | ⊅0 | | | | (A | | | NI IC |
| ## Still Container Preservative HEAL No. Type and # Type and Type and Type and Type and Type and Type and Type and Type and Type and Type and Type and Typ | 103 | Temperature: 3, | = h'Q- | L+3: | g po | | | | ΟΛ- | | 70 |) I) |
| 40mi VOA-5 HCI ——————————————————————————————————— | Sample Request ID | | | BTM+X3T8 | EDB (Metho | | | | imə2) 0728 | | | saidana IIV |
| Feceived by: Seceived by: Character Argent Colored C | CW 0+60 | | 8 | | | | <u> </u> | × | | _ | | |
| Z50 mL X | CW 0+60 | <u>'</u> | <u>8</u> | × | | | | | | | | |
| Received by: Received by: Received by: Date Time Date Time Angly 8:15 | | 250 ML X | | | | | · · | | | | | |
| Received by: Received by: Received by: Date Time Date Time And Style 8:15 | | | | | | | | _ | | | | T |
| Received by: Muzic Walk 8/37/19 S/6 Prime Pri | | | | | - | | | | | | | 1 |
| Received by: Mult Walk 8/27/19 S/16 Fine Date Time Date Date Time Date | | | | | | | | | | | | |
| Received by: Must Male State Time Date Date Time Date Time Date Date Time Date Da | | | | | | | <u> </u> | | | | | |
| Received by: Received by: Received by: Date Time Date Time AM/19 8:15 | | | | | | | | | | | | |
| Received by: Multiple Male 8/27/19 57/6 Received by: Date Time | | | | | | | | | | | | Ī |
| Received by: Multiple Walk 8/37/19 57/6 Received by: Over 100 8.1 5.1 Charles of the State Time 5.1 Charles of the State Time 5.1 Charles of the State Time 5.1 Charles of the State Time 5.1 Charles of the State 5.1 Charles | | | | | | | | | | | | |
| Received by: Received by: Out. 1876 Date Time Charles AM/19 8:15 | | | | | | | | | | _ | | |
| Received by: Re | | | | | | | <u>.</u> | | | | | |
| | | اعلا | Date | Remarks: | |] | | - |] | | <u>-</u> | |

ANALYSIS LABORATORY 2 0 9 HALL ENVIRONMENTAL 4901 Hawkins NE - Albuquerque, NM 87109 Fax 505-345-4107 www.hallenvironmental.com Analysis Request Tel. 505-345-3975 Project Name: 2019 Annual GW Sampling Event □ Rush Turn-Around Time: X Standard Project #: Chain-of-Custody Record Client: Western - Bloomfield Terminal Bloomfield, NM 87413 419-421-2338 Mailing Address: 50 CR 4990

Phone #:

| EDB (Method 504.1) PAH (8310 or 8270SIMS) PCRA 8 Metals Anions (F,CI,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄) B260B (VOA) BTEX,MTBE only S270 (Semi-VOA) | × | | | | | | | | | See Analytical Methods and Target Analytes. | |
|---|--|-------------------|---|--|---|--|----------|---|------|--|---------------------------------------|
| TPH 8015B (GRO/DRO/MRO) TPH (Method 418.1) | - | × | | | | | <u> </u> | | | | |
| 31EX+MTBE+TPH(Gas only) | + | | | | | | | | | Remarks: | |
| BTEX+MTBE+TMB's(8021) | | 2 | | | | | | | | | 1 |
| Project Manager: Gregory McCartney Sampler: Tracy Payne - 919-561-7055 On Ice: Ø Yes □ No Sample Temperature: 3, 3 - 0, 4 = 2,9² Container Preservative HEAL No. Type and # Type | 202 | 7002 | | | | | | | | Date Time \$\int \frac{127}{9} \frac{1576}{1576} Date Time \$\int \frac{15}{2} \frac{16}{15} \frac{15}{15} | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ |
| Tracy Payne M Yes Perature: 3.3 Preservative Type | HC | Neat | | | | | | ï | | Mate | ا ا ا |
| Project Manage Sampler: T On Ice: Sample Tempe Container Type and # | 40ml VOA-5 | 250 ml amber-1 | | | *************************************** | | | | | Received by: Received by: | 1 |
| Email: gimccartney@marathonpetroleum.com QA/QC Package: ☐ Standard ☐ Other X EDD (Type)EXCEL Date | OW 25+70 | OW 25+70 | | | | | | | 1975 | in the state of th | |
| EXCEL Matrix | H ₂ 0 | H ₂ O | : | | | | | | | Relinquished by: |) > > |
| gjmccar ackage: fard (Type) | 1150 | → | | | | | | | | Time: | |
| Email: gimccar QA/QC Package: Standard Other X EDD (Type) | 8/26/19 1150 | \rightarrow | | | | | | | | 8/21/19 S U Date: Time: 8/27/14 S U | 1,1 |

3 0 9

| Turn-Around Time: X Standard | | | ANALYSIS | | ent 4901 Hawkins NE | Tel. 505-345-3975 | | (ʎlu | 92 O | (G | 30) 101 | . 2,9% = + + = + | 8TM 8TM | HEAL No. TEX+N TEX+N TEX+N | 8 | 765 | X | | | | | | | Date Time Remarks: See Analytical Methods $\frac{\delta \lambda}{1/4}$ | Date Time 8/28/19 8:15 | ı | |
|--|------------------|---|-------------------------------|---------------------------|-----------------------------|-------------------|---|----------------|--|-------------|------------|--------------------------------|------------|----------------------------|---|-------------------|-----|---|----------|--|--|--|--|--|--------------------------|---|--|
| # 1 | Firm-Around Time | | | Project Name: 2019 Annual | Sampling Event | Project #: | Project Manager: Gregory Mo | | | Tracy Payne | | Sample Temperature: 3,3 - D, 4 | | Preservative Type | | | . 7 | 2.50mL </th <th>AMBER-11</th> <th></th> <th></th> <th></th> <th></th> <th>b to When</th> <th></th> <th>l</th> <th></th> | AMBER-11 | | | | | b to When | | l | |
| Client: V Client | | T | Western - Bloomfield Terminal | ď | Mailing Address: 50 CR 4990 | | Email: gjmccartney@marathonpetroleum.com Pr | QA/QC Package: | ☐ Standard X Level 4 (Full Validation) | | | | | Sample Request ID | | - HO DUPLICATE #3 | | | 7 | | | | | Time: Relinquished by: | 100 m | | |

| Ċ | hain. | of.Cu | Chain-of-Custody Record | Turn-Around | Time. | | | | | | | | | 1 | 5 | 1 | I | |
|-----------------|------------------|------------------|--|-------------------------|----------------------|------------------------|----------------------|-----------|------------|---------------------------|------------|-----------------------------|-----------|--|----------|--------|---------------|--------|
| | 5 | 5 | Stody Incoold | | <u>;</u> | | | | Ĭ | | | | 80 | HALL ENVIRONMENTAL | | Y | | |
| Client: | Weste | rn - Blo | Client: Western - Bloomfield Terminal | X Standard | □ Rush | | | | 4 | A | X | S | A | ANALYSIS LABORATORY | T | C | , > | |
| | | | | Project Name: | 2019 Annual GW | iual GW | | | ; ≥ | www.hallenvironmental.com | lenvir | Dume | ntal.c | Ę | | | • | |
| Mailing | Mailing Address: | 50 CR 4990 | 4990 | | Sampling | g Event | | 901 H | lawkin | 4901 Hawkins NE - | - Albu | querq | ne. N | Albuquerque, NM 87109 | 60 | | | |
| | | Bloom | Bloomfield, NM 87413 | Project #: | | | | [el. 5(| 5-345 | Tel. 505-345-3975 | ш | . 50 3x | 5-345 | Fax 505-345-4107 | | | | |
| Phone #: | #i: | 419-421-2338 | 1-2338 | | | | | | | / | nal | is Re | dnest | | | | | |
| Email: | gjmccart | tney@ma | Email: gjmccartney@marathonpetroleum.com | Project Mana | ger: Gregor | ger: Gregory McCartney | | | | | | | | | | | | |
| QA/QC Package: | ackage: | | | | - | | | | | | | | | | | | | ···· |
| □ Standard | dard | | X Level 4 (Full Validation) | | | | | | | (SN | | | | | | | | |
| □ Other | | | | Sampler: | Tracy Payne | e - 919-561-7055 | | | | | | | | | | | (1) | /• |
| X EDD (Type) | (Type)_ | EXCEL | | On Ice: | 域 Yes | ON 🗆 | | | | | | | | (A | | | 4 10 | |
| | | | | Sample Temp | perature: 3.3 | 3-0.4 2.92 | | | | | | | | ΟΛ: | | | , Y) | |
| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL NO. | 8TM+X3T8 8TM+X3T8 | aeros H9T | TPH (Metho | EDB (Metho | S ARDR | Anions (F,Cl 8081 Pestic | 8260B (VO | -imə2) 0728 | · | | e∋ldduB les | |
| 8/27/9 | 0750 | H ₂ O | OW 8+10 | 40ml VOA-5 | HCI | 102 | _ | | - | | + | 4 | + | } | | | + | |
| \rightarrow | \rightarrow | O ^z H | OW 8+10 | 250 ml amber-1 | Neat | 1997 | | × | | | | | | | | | | I |
| | | | | | | | | | <u> </u> | | | <u> </u> | | | <u> </u> | | | 1 |
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| - | | | | - | | | | 1 | | _ | | | | _ | | | \dashv | — Т |
| 8/27/19 | Me: 57 b | Xellocarshed by | \ \ | Received by: Must | . Lack | 5 | Remarks: | | ee An | alytic | Met Met | pods | and | See Analytical Methods and Target Analytes | t Anal | lytes. | | |
| Date: | | Relinquished by: | in page 2. | Received by: | | ⊨ | | | | | | | | | | | | |
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| Ü | hain- | of-Cu | Chain-of-Custody Record | Turn-Around | Time: | | | | | | | | ı | | 5 | - | |
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| | | ; ; ; | | | | | | Ц | Ì | 1 | Z | Z | Õ | HALL ENVIRONMENTAL | Z | A | |
| Client: | Wester | rn - Blo | Western - Bloomfield Terminal | X Standard | ☐ Rush | | | | A | M | YSI | SL | AB | ANALYSIS LABORATORY | ATC | KY | |
| | | | | Project Name: | : 2019 Annual GW | ıual GW | | | ≶ | w.hal | www.hallenvironmental.com | ment | al.cor | _ | | | |
| Mailing. | Address: | Mailing Address: 50 CR 4990 | 4990 | | Sampling Event | g Event | 4 | 901 H | 4901 Hawkins NE | ЯN | Albuq | nergu | e, NV | Albuquerque, NM 87109 | . | | |
| | | Bloom | Bloomfield, NM 87413 | Project #: | | | | el. 50 | Tel. 505-345-3975 | 3975 | Еâ | Fax 505-345-4107 | 345-4 | 1107 | | | |
| Phone #: | | 419-421-2338 | 1-2338 | | | | | | | A | Analysis | Request | rest | | | | |
| Email: | gjmccart | ney@ma | Email: gjmccartney@marathonpetroleum.com | Project Mana | ger: Gregol | Project Manager: Gregory McCartney | (| | | | <u> </u> | | Ą | _ | | _ | |
| QA/QC Package: | ackage: | | | | | | | | | (5 | ros" | | Ino 3 | | | | |
| □ Standard | dard | | X Level 4 (Full Validation) | | | | | | | | PO ₄ | | IBTN | | | | |
| □ Other | | | | Ľ | Tracy Payne | le - 919-561-7055 | | | | | ' ^e OI | | | | | | (N |
| X EDD (Type) | (Type) | EXCEL | | On Ice: | ⊠ Yes | □ No | | | | | | | | (\(\dagger) | | | 10 |
| | | | | Sample Temperature: | W | 3-0,4-2,92 | | | | | | | | | | | ۲) |
| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL No. | EX+MTE | 8015B | H (Metho | 01£8) H, | •M 8 A <i>Я</i> : Э,∃) anoi | 81 Pestio | OV) 808 | imə2) 07 | | | Bubbles |
| 8/7/10 | 9 | Н,О | OW 19+50 | 40ml VOA-5 | Ę | 1908 (9.5) | _ | _ | _ | | - | _ | | 70 | | | iΑ |
| | 2/20- | 27: | | 250 ml | 5 | σ | | | + | 1 | + | 1 | < | + | | | |
| > | - | O ₂ | OW 19+50 | amber-1 | Neat | 705 | | × | | | | | | | | - | |
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| , 6, | 0 | Relinquished by: | | Received by: | Jack | Date Time がパタ (5/0 | Remarks: | | e Ana | alytica | l Meth | ods a | Ind T | See Analytical Methods and Target Analytes | ⁴nalyt | es. | |
| S S S S S S S S S S | Time: | Relinduished by | 100 | | Courier | Date Time 8/28/19 | | | | | | | | | | | |
| <u></u> | 1. | | | | | | | | | | | | | | | |] |

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| <u>ت</u> ت | hain- Weste | of-Cu | Client: Western - Bloomfield Terminal | Turn-Around X Standard | Time: | | | | Ĭ | HALL | E 5 | Σ× | 8 | ĮΣ | ENVIRONMENTAL | ₹ | } | |
|--------------|----------------|-----------------------------|--|-------------------------|----------------------|------------------------|--|------------|-------------------|--------------|--------------|---------------------------------|-------------|-----------------------|--|----------|----------------|------------|
| 1 | | | | Project Name: | 20 | ual GW | | | ₹ * | | MALYSIS LABO | | 4 | | ANALYSIS LABORATORY | 0 | > | |
| 1 2 | Address | Mailing Address: 50 CR 4990 | 1 4990 | | Sampling Event | g Event | 4 | 901 F | 4901 Hawkins NE - | s NE | - Alb | iquerc | ane, N | Albuquerque, NM 87109 | 60 | | | |
| l | | Bloom | Bloomfield, NM 87413 | Project #: | | | <u>, </u> | Tel. 5(| Tel. 505-345-3975 | -397 | <u> </u> | эх Эх | 5-34 | Fax 505-345-4107 | | | | |
| Phone #: | | 419-421-2338 | 1-2338 | | | | | | | | ınalı | is Re | sənb | - | | | | |
| - | jimccari | ney@ma | Email: gjmccartney@marathonpetroleum.com | Project Mana | ger: Grego ı | ger: Gregory McCartney | , | | | | | | | | | | | |
| п. | OA/QC Package: | | | | | | | | | (S | | | | | | | | |
| ☐ Stand | ☐ Standard | | X Level 4 (Full Validation) | Sampler | Tracy Payne | le - 919-561-7055 | | | | | | | | | | | (| |
| ے د | X EDD (Type) | EXCEL | | | ™ Yes | No □ | | | | | | | | (∀ | | - | . <u>N</u> .10 | |
| | - () (| | | Tem | z, | 3-0.4=2.9% | | | | | | | | ′ΟΛ- | | | э <u>У)</u> | |
| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL No. | BTEX+MTB BTM+X3T8 | 83 r08 H9T | TPH (Metho | EDB (Metho | RCRA 8 Me | IO,∃) anoinA Site9¶ 1808 | 8560B (VO | imə2) 0728 | | | Air Bubbles | oolgana in |
| <u>~</u> | 8/21/9 0825 | H ₂ 0 | OW 22+00 | 40ml VOA-5 | HCI | 187 | | × | | - | + | | | | <u> </u> | | <u> </u> | , |
| <u> </u> | → | H ₂ O | OW 22+00 | 250 ml amber-1 | Neat | 300 | | × | | | | | | | | | | |
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| + | | | | | | | | _ | $oxed{\top}$ | | | - | — | | + | | | \top |
| Date: 9/27/9 | ٥ | Relinquished by | | Received by: | KLAN | Date Time 8/21/19 1510 | Remarks: | 1 | ee Ar | alytic | al Me | thods | and | Targe | See Analytical Methods and Target Analytes | lytes. | _ | T |
| <u> </u> | Time: 844 | Reliffquished by: | 4 Lock | Received by: | Courier | Date Time 8,15 | | | | | | | | | | | | |
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| Container Preservative HEAL No. 17/10/2 (2.7.3.) I PEAL No. 17/10/2 (1.1.4.) Type and # Type and # Type and # Type and # Type and # Type and # Type and # Type and # Type and # Type and # Type and # Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type and # Type All No. 17/10/2 (1.1.4.) Type All No. 17/10/ |
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| ပ | hain | of-Cu | Chain-of-Custody Record | Turn-Around | Time: | | | | I | - - - - - | | 5 | | 2 | ENVIDONMENTAL | LAT | | |
| Client: | Weste | ırn - Blo | Western - Bloomfield Terminal | X Standard | □ Rush | | | | ₹ | ANALYSIS | \ | S | AB | 0 | LABORATORY | OR | . > | |
| | | | | Project Name | 2019 Annual GW | ual GW | | | ≥ | www.hallenvironmental.com | lenvir | nmer | ıtal.co | E | : : : |) | ı | |
| Mailing | Address | Mailing Address: 50 CR 4990 | र 4990 | | Sampling Event | g Event | 7 | 4901 Hawkins NE | awkin | | Albu | dnerd | ne, 🗷 | - Albuquerque, NM 87109 | 60 | | | |
| | | Bloom | Bloomfield, NM 87413 | Project #: | | | | Tel. 5(| 5-345 | | F | Fax 50 | 505-345-4107 | 4107 | | | | |
| Phone #: | | 419-42 | 419-421-2338 | • | | | | | | ٩ | Analysis Request | is Rec | luest | | | | | |
| Email. | gjmccar | tney@ma | gimccartney@marathonpetroleum.com | Project Mana | ger: Gregor) | Project Manager: Gregory McCartney | ' | | | | | | Ιλ | | | | | |
| QA/QC | QA/QC Package: | | | | | | | | | (5 | - | | no 38 | | | | | |
| . ☐ Standard | dard | | X Level 4 (Full Validation) | | | | | | | SWI | | | 3TN | | | | | _ |
| □ Other | | | | Sampler: | Tracy Payne | e - 919-561-7055 | | | | | | | ı 'X: | | | | (N | |
| X EDD (Type) | (Type) | EXCEL | | On Ice: | ß′Yes | □ No | | | | | | | 3TE | (A(| | | Or i | |
| | | | | Sample Temperature: | erature: 3.3 | -0,4 = 2.9° | | | | | | | ∃ (∧ | <u>-</u> ΛΞ | | | <u>Y)</u> | |
| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL No. | EX+MTE | 89108 H | H (Metho | 0 (Metho | •M 8 AЯ | O,F,C ions (F,C 81 Pestic | 60B (VO | imə2) 07 | | | səlqqng . | |
| 8421 | 3 | Ç | CW 25+95 | 40ml VOA-5 | CH | 1908 6-51 | | | | | | | Z8 > | 28 | | | ιiΑ | - 1 |
| 61/126 | 030 | 225 | C6+C2 AA | 40ml VOA-5 | 2 | (C)(2) | | | | | | | < | | | | - | |
| -> | -> | H ₂ O | CW 25+95 | 7 500 ml - 7 | Neat | 778 | | X | | | | | | | | | | |
| | | | | 250 ML | |) | | | | | | | | | | | | |
| | | | 7 | AMBER-1 | | | | | | | | | | ļ | : | | | |
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| Date: | тіте: }84̈Ч | Relinguished by | ed by: | Received by: | Concier | Date ' Time 8/28/19 8:15 | | | | | | | | | | | | |
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| | 7 | ! ≥ | | Albuquerque, NM 87109 | | | | | | | sls | JəN | Dissolved I | | | | | | | | | arge | | |
| ' | Z | Š | L Wo | .∞ <u>≥</u> | 505-345-4107 | | | | | | (A | OΛ· | im92) 07 <u>5</u> 8 | | | | | | | | ! | _ p | | |
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| | Ź | Si | viror | bna | Fax | lysis | | ([†] OS | | | | - | IO, F) snoinA | - | | | | <u> </u> | <u> </u> | _ | : | <u>≅</u> | | |
| | | | www.hallenvironmental.com | - 1 | ம | Analysis Request | | | | | | | PAH (8310 · | | | | | | | | <u> </u> | <u>z</u> | | |
| | | į | ww.h | S N | -397 | | | | 121 | | | | EDB (Metho | <u> </u> | | | | | | \dashv | _ - | laly I | | |
| | Ì | ₹ | ≱ | 4901 Hawkins NE | Tel. 505-345-3975 | | | | | | | | TPH (Metho | | | | | | | \dashv | - - | e F | | |
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| | | | W | ınt | | | Cartney | | | 9-561-70 | | 1 = 2,9% | HEAL NO. | ۲ | b | 000 | | | į | | Time | 7 | te Time | 51:8 61/8 |
| | | اِ | nual G | ng Eve | | | ory Mc | | | ne - 91 | % □ | 3-0,4 | | | | | | | | | Oate C | 4 | Date | 61/82/8 |
| | Time: | □ Rush | 2019 Ar | Sampling Event | | | ger: Gregory McCartney | | | Tracy Payne - 919-561-7055 | Ø Yes | perature: 3, | Preservative Type | HCI | NEAT | 3461 | | | | | | La As | | courier |
| | Turn-Around | X Standard | Project Name: 2019 Annual GW | | Project #: | | Project Mana | | | Sampler: | On Ice: | Sample Temp | Container Type and # | 40 ML VOA | 2.50 ML AMBER-1 | 40. ML WA | | | | | Poceived hv. | | Received by: | |
| | Chain-of-Custody Record | erminal | | | 87413 | | leum.com | | X Level 4 (Full Validation) | | | | Sample Request ID | BLANK#3 | ← | BLANK | | | | | | | | 1 /2 |
| | stody | Western - Bloomfield Terminal | | 4990 | Bloomfield, NM 87413 | 1-2338 | gimccartney@marathonpetroleum.com | | X Level 4 (| | | | Sample | FIELD | | TRIP | | | | | P | | d by: | 41/1/2 |
| | no-jo- | rn - Blo | | : 50 CR 4990 | Bloom | 419-421-2338 | tney@ma | | | | EXCEL | | Matrix | H,0 | \rightarrow | H20 | | | | | Relinguished by: | | Relinguished by | 7.3/ |
| | hain | Weste | | Mailing Address: | | #: | | QA/QC Package: | dard | <u>.</u> | X EDD (Type)_ | | Time | 8/21/9/0908 | > | 1 | | | | | Time. | | Time: | Ja h § 1 |
| | | Client: | | Mailing | | Phone #: | Email: | QA/QC | □ Standard | □ Other | X EDC | | Date | 8/1/3 | > | 8/27/19 | | | | | Dafo: | 8/21/4 | Date: | 8/2/6 |



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

September 18, 2019

Gregory J. McCartney Western Refining Southwest, Inc. #50 CR 4990

Bloomfield, NM 87413 TEL: (505) 632-4135 FAX: (505) 632-3911

RE: 2019 Annual GW Sampling Event OrderNo.: 1908I12

Dear Gregory J. McCartney:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/29/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1908I12

Date Reported: 9/18/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: Mw-27

Project: 2019 Annual GW Sampling Event
 Collection Date: 8/28/2019 8:00:00 AM

 Lab ID: 1908I12-001
 Matrix: AQUEOUS
 Received Date: 8/29/2019 8:15:00 AM

| Analyses | Result | MDL | RL | Qual | Units | DF | Date Analyzed H | Batch ID |
|------------------------------------|--------|----------|---------|------|-------|----|-----------------------|----------|
| EPA METHOD 245.1: MERCURY | | | | | | | Analyst: rde | |
| Mercury | ND | 0.000038 | 0.00020 | | mg/L | 1 | 9/17/2019 12:18:40 PM | 47502 |
| EPA METHOD 6010B: DISSOLVED METALS | 3 | | | | | | Analyst: bcv | |
| Arsenic | ND | 0.019 | 0.020 | | mg/L | 1 | 9/9/2019 12:15:34 PM | A62764 |
| Barium | 0.045 | 0.00056 | 0.020 | | mg/L | 1 | 9/9/2019 9:25:24 AM | A62764 |
| Cadmium | ND | 0.00058 | 0.0020 | | mg/L | 1 | 9/9/2019 9:25:24 AM | A62764 |
| Calcium | 670 | 0.60 | 10 | | mg/L | 10 | 9/11/2019 12:49:35 PM | A62841 |
| Chromium | ND | 0.0012 | 0.0060 | | mg/L | 1 | 9/9/2019 9:25:24 AM | A62764 |
| Copper | ND | 0.0023 | 0.0060 | | mg/L | 1 | 9/9/2019 9:25:24 AM | A62764 |
| Iron | 1.1 | 0.027 | 0.10 | | mg/L | 5 | 9/9/2019 9:27:07 AM | A62764 |
| Lead | ND | 0.0048 | 0.0050 | | mg/L | 1 | 9/9/2019 9:25:24 AM | A62764 |
| Magnesium | 110 | 0.30 | 5.0 | | mg/L | 5 | 9/9/2019 9:27:07 AM | A62764 |
| Manganese | 1.8 | 0.0013 | 0.010 | | mg/L | 5 | 9/9/2019 9:27:07 AM | A62764 |
| Potassium | 6.0 | 0.11 | 1.0 | | mg/L | 1 | 9/9/2019 9:25:24 AM | A62764 |
| Selenium | ND | 0.041 | 0.050 | | mg/L | 1 | 9/9/2019 9:25:24 AM | A62764 |
| Silver | 0.0086 | 0.0013 | 0.0050 | | mg/L | 1 | 9/9/2019 9:25:24 AM | A62764 |
| Sodium | 870 | 2.4 | 10 | | mg/L | 10 | 9/9/2019 12:17:15 PM | A62764 |
| Uranium | ND | 0.062 | 0.10 | | mg/L | 1 | 9/9/2019 9:25:24 AM | A62764 |
| Zinc | 0.015 | 0.0026 | 0.020 | J | mg/L | 1 | 9/9/2019 9:25:24 AM | A62764 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908I12**

18-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: MB-47502 SampType: MBLK TestCode: EPA Method 245.1: Mercury

Client ID: PBW Batch ID: 47502 RunNo: 62984

Prep Date: 9/16/2019 Analysis Date: 9/17/2019 SeqNo: 2147224 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury ND 0.00020

Sample ID: LCS-47502 SampType: LCS TestCode: EPA Method 245.1: Mercury

Client ID: LCSW Batch ID: 47502 RunNo: 62984

Prep Date: 9/16/2019 Analysis Date: 9/17/2019 SeqNo: 2147225 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Mercury 0.0049 0.00020 0.005000 0 97.3 80 120

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1908I12

18-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: MB-A SampType: MBLK TestCode: EPA Method 6010B: Dissolved Metals

Client ID: PBW Batch ID: A62764 RunNo: 62764

SampType: LCS

| | | | - | | | - | | | | |
|------------|----------|----------|-----------|-------------|----------|----------|-------------|------|----------|------|
| Prep Date: | Analysis | Date: 9/ | 9/2019 | 5 | SeqNo: 2 | 137952 | Units: mg/L | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic | ND | 0.020 | | | | | | | | |
| Barium | ND | 0.020 | | | | | | | | |
| Cadmium | ND | 0.0020 | | | | | | | | |
| Chromium | ND | 0.0060 | | | | | | | | |
| Copper | ND | 0.0060 | | | | | | | | |
| Iron | ND | 0.020 | | | | | | | | |
| Lead | ND | 0.0050 | | | | | | | | |
| Magnesium | ND | 1.0 | | | | | | | | |
| Manganese | ND | 0.0020 | | | | | | | | |
| Potassium | ND | 1.0 | | | | | | | | |
| Selenium | ND | 0.050 | | | | | | | | |
| Silver | ND | 0.0050 | | | | | | | | |
| Sodium | ND | 1.0 | | | | | | | | |
| Uranium | ND | 0.10 | | | | | | | | |
| Zinc | ND | 0.020 | | | | | | | | |

| | | , · · · | _ | | | | | | | | |
|-----------------|----------|-----------------|-----------|-------------|----------|----------|-------------|------|----------|------|--|
| Client ID: LCSW | Bato | ch ID: A6 | 2764 | F | RunNo: 6 | 2764 | | | | | |
| Prep Date: | Analysis | Date: 9/ | 9/2019 | \$ | SeqNo: 2 | 137953 | Units: mg/L | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Arsenic | 0.48 | 0.020 | 0.5000 | 0 | 95.6 | 80 | 120 | | | | |
| Barium | 0.48 | 0.020 | 0.5000 | 0 | 95.1 | 80 | 120 | | | | |
| Cadmium | 0.50 | 0.0020 | 0.5000 | 0 | 99.4 | 80 | 120 | | | | |
| Chromium | 0.49 | 0.0060 | 0.5000 | 0 | 97.1 | 80 | 120 | | | | |
| Copper | 0.50 | 0.0060 | 0.5000 | 0 | 100 | 80 | 120 | | | | |
| Iron | 0.49 | 0.020 | 0.5000 | 0 | 98.6 | 80 | 120 | | | | |
| Lead | 0.49 | 0.0050 | 0.5000 | 0 | 98.6 | 80 | 120 | | | | |
| Magnesium | 50 | 1.0 | 50.00 | 0 | 100 | 80 | 120 | | | | |
| Manganese | 0.48 | 0.0020 | 0.5000 | 0 | 97.0 | 80 | 120 | | | | |
| Potassium | 50 | 1.0 | 50.00 | 0 | 99.3 | 80 | 120 | | | | |
| Selenium | 0.48 | 0.050 | 0.5000 | 0 | 96.3 | 80 | 120 | | | | |
| Silver | 0.10 | 0.0050 | 0.1000 | 0 | 99.8 | 80 | 120 | | | | |
| Sodium | 50 | 1.0 | 50.00 | 0 | 99.6 | 80 | 120 | | | | |
| Uranium | 0.46 | 0.10 | 0.5000 | 0 | 91.3 | 80 | 120 | | | | |
| Zinc | 0.48 | 0.020 | 0.5000 | 0 | 96.5 | 80 | 120 | | | | |

Qualifiers:

Sample ID: LCS-A

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

TestCode: EPA Method 6010B: Dissolved Metals

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1908I12**

18-Sep-19

Client: Western Refining Southwest, Inc.

Project: 2019 Annual GW Sampling Event

Sample ID: MB-A SampType: MBLK TestCode: EPA Method 6010B: Dissolved Metals

Client ID: PBW Batch ID: A62841 RunNo: 62841

Prep Date: Analysis Date: 9/11/2019 SeqNo: 2141041 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Calcium ND 1.0

Sample ID: LCS-A SampType: LCS TestCode: EPA Method 6010B: Dissolved Metals

Client ID: LCSW Batch ID: A62841 RunNo: 62841

Prep Date: Analysis Date: 9/11/2019 SeqNo: 2141042 Units: mg/L

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Calcium 49 1.0 50.00 0 98.8 80 120

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

Sample Log-In Check List

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

| Client Name: Western Refining Southw | Work Order Number | : 190811 | 2 | RcptNo | 1 |
|---|---|-----------------------------|---|---|-------------------|
| Received By: Desiree Dominguez | 8/29/2019 | | Da | | |
| Completed By: Isaiah Ortiz | 8/30/2019 8:10:39 AM | | Inc | 24 | |
| Reviewed By: 1 | 9/3/11 | | | , | |
| Chain of Custody | | | | | |
| 1. Is Chain of Custody complete? | | Yes 🔽 | No 🗌 | Not Present | |
| 2. How was the sample delivered? | | Courier | | | |
| <u>Log In</u> | | | | | |
| 3. Was an attempt made to cool the samples | 5? | Yes 🗸 | No 🗌 | NA 🗌 | |
| 4. Were all samples received at a temperature | re of >0° C to 6.0°C | Yes 🗸 | No 🗌 | NA 🗆 | |
| 5. Sample(s) in proper container(s)? | | Yes 🗸 | No 🗆 | | |
| 6. Sufficient sample volume for indicated test | (s)? | Yes 🗸 | No 🗌 | | |
| 7. Are samples (except VOA and ONG) prope | erly preserved? | Yes 🗸 | No 🗌 | | |
| 8. Was preservative added to bottles? | | Yes | No 🗸 | NA \square | |
| 9. VOA vials have zero headspace? | | Yes | No 🗌 | No VOA Vials 🗸 | |
| 10. Were any sample containers received brol | ken? | Yes | No 🗸 | # of preserved | |
| 11. Does paperwork match bottle labels? | | Yes 🗸 | No 🗌 | bottles checked for pH: | |
| (Note discrepancies on chain of custody) | | 165 | 140 | | >12 unless noted) |
| 12. Are matrices correctly identified on Chain of | of Custody? | Yes 🗸 | No 🗌 | Adjusted? | V0 |
| 13. Is it clear what analyses were requested? | | Yes 🗸 | No 🗌 | | 9/3/19 |
| 14. Were all holding times able to be met? | | Yes 🗸 | No 🗌 | Checked by: D | |
| (If no, notify customer for authorization.) | | | | | DAO 9/3/ |
| Special Handling (if applicable) | | | | | |
| 15. Was client notified of all discrepancies with | n this order? | Yes [| No 🗆 | NA 🗹 | |
| Person Notified: | Date: | and between the same | CONTRACTOR OF THE PROPERTY OF | | |
| By Whom: | Via: | eMail | ☐ Phone ☐ Fax | ☐ In Person | |
| Regarding: | THE PARTICULAR PROPERTY OF THE PARTY OF THE | ng kida sa cesara ta incara | PARTIES REAL PROPERTY AND THE PARTIES AND THE | Action of the second of the control | |
| Client Instructions: | | | | | |
| 16. Additional remarks: | | | | | |
| 17. Cooler Information | | | | | |
| | Seal Intact Seal No S | Seal Date | Signed By | | |
| 1 2.3 Good Y | es | | | | |

7 0 7

| Chain-of-C | Chain-of-Custody Record | Turn-Around Time: | | | | 1 | | | | | 1 | ֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֓֓֓֓֡֓֓֡֓֡ | 4 | |
|------------------------------|-----------------------------------|------------------------------------|----------------------------|----------------------|-----------|---|-------------|---------------------------------|----------------------|-------------|-------------|---|------------|-------------|
| Client: Western - E | Western - Bloomfield Terminal | X Standard | | | | HALL | | | ENVIRONMENTAL | | | | 4 2 | |
| | | 2019 | I GW | | | AIMELSIS LABORALORI | | CTC. | 5 | | 2 | 2 | 2 | |
| Mailing Address: 50 (| 50 CR 4990 | Sampling Event | Event | 490 |)1 Hay | www.lia 4901 Hawkins NF | , <u> </u> | | Albuquerane NM 87109 | | 7109 | | | |
| Bloo | Bloomfield, NM 87413 | Project #: | | Tel. | I. 505 | 505-345-3975 | 10 | Fax | 505-345-4107 | 5-410 | 22 | | | |
| Phone #: 419- | 419-421-2338 | | | | | | Analysis | | Request | 35 | | | | |
| Email: gjmccartney@ | gjmccartney@marathonpetroleum.com | Project Manager: Gregory McCartney | McCartney | (/ | (0 | | | (1 | S | | | 2 (| | |
| QA/QC Package: X Standard | **Level 4 (Full Validation) | | | | O/MR(| 377.75 | | [†] OS' [†] O | 5 bCB | | | | Annun | |
| □ Other | | Sampler: Tracy Payne | Tracy Payne - 919-561-7055 | | | (1 | | d,₅C | 2808 | | | | PVIIV | (1 |
| X EDD (Type) EXCEL | EL | On Ice: 🗚 Yes | oN 🗆 | | | .40 | | Ν'ε | 8 / 8 | (A | | | 4 | J 10 |
| | | Temperature: 2, | -0.0-7.32 | | | g p | | ON | | _ | | | ·ma | 入) |
| Date Time Matrix | Sample Request ID | Preservative Type | AL No. | atm+xəta atm+xəta | TPH 8015B | TPH (Metho | PAH (8310 o | ,ID, F) enoinA | 8081 Pestici | -imə2) 0728 | Dissolved N | General Ch | General Ch | Air Bubbles |
| 8/28/19 0800 HzO | MW-27 | PASTIC-1 HNO3 | - 00 (| | | | | | | | | | | |
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| | | | | | | | | | | | | | | |
| Q | Relinquished by | Received by: | Sas 326 | Remarks: | | See Analytical Methods and Target Analytes. | tical | Metho | ods a | nd T | arge | -t An | alyte | <i>(6)</i> |
| Date: I'me: Kengui | Remodulshed by: | Received by: COUCIAL | 5/29/19 8:15 | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Analytical Methods and Target Analytes Facility-Wide Groundwater Monitoring Plan - June 2014 Western Refining Southwest, Inc. - Bloomfield Terminal

| VOCs (| EPA Method 8260B) (1) |
|-------------------|--|
| - Target | |
| $B\epsilon$ | enzene |
| To | luene |
| Et | hylbenzene |
| $X_{\mathcal{Y}}$ | lenes |
| M | ethyl tert butyl ether (MTBE) |
| SVOCs | - (EPA Method 8270) |
| - N | Method List |
| | RO (EPA Method 8015B) |
| | Gasoline Range Organics |
| | RO (EPA Method 8015B) |
| - I | Diesel Range Organics |
| | Motor Oil Range Organics |
| Total C | arbon Dioxide (Laboratory Calculated) |
| - I | Dissolved CO2 |
| Specific | Conductivity (EPA Method 120.1 or field measurement) |
| | pecific conductance |
| TDS (E | PA Method 160.1 or field measurement) |
| - T | otal dissolved solids |
| General | Chemistry - Anions (EPA Method 300.0) |
| | ioride |
| Ch | loride |
| Br | omide |
| Ni | trogen, Nitrite (as N) |
| Ni | trogen, Nitrate (as N) |
| Ph | osphorous, Orthophosphate (As P) |
| | lfate |
| General | Chemistry - Alkalinity (EPA Method 310.1) |
| | kalinity, Total |
| Ca | rbonate |
| Bio | carbonate |

| - Target List (not applicable to | A Method 6010B/7470) River Terrace Sampling Events |
|--|--|
| Arsenic | Lead |
| Barium | Mercury |
| Cadmium | Selenium |
| Chromium | Silver |
| - Target List (for River Terrace | Sampling Events Only) |
| Lead | |
| Mercury (DW-1 ON | (LY) |
| Dissolved Metals (EPA Methor - Target List (for Refinery Com- | |
| - Target List (for Refinery Com | nplex, Outfalls, and River) |
| - Target List (for Refinery Com Arsenic | nplex, Outfalls, and River) Manganese |
| - Target List (for Refinery Com Arsenic - Barium | pplex, Outfalls, and River) Manganese Mercury |
| - Target List (for Refinery Com Arsenic Barium Cadmium | nplex, Outfalls, and River) Manganese |
| - Target List (for Refinery Com Arsenic - Barium | pplex, Outfalls, and River) Manganese Mercury |
| - Target List (for Refinery Com Arsenic Barium Cadmium | plex, Outfalls, and River) Manganese Mercury Potassium |
| - Target List (for Refinery Com Arsenic - Barium Cadmium Calcium | aplex, Outfalls, and River) Manganese Mercury Potassium Selenium |
| - Target List (for Refinery Com Arsenic - Barium Cadmium Calcium Chromium | aplex, Outfalls, and River) Manganese Mercury Potassium Selenium Silver |
| - Target List (for Refinery Con Arsenic - Barium - Cadmium - Calcium - Chromium - Copper | aplex, Outfalls, and River) Manganese Mercury Potassium Selenium Silver Sodium |

TPH = total petroleum hydrocarbons GRO = gasoline range organics VOCs = volatile organic compounds DRO = diesel range organics TDS = total dissolved solids

NOTES:

- (1) VOCs Target List for River Terrace samples are analyzed by EPA Method 8021B per NMED's letter Approval with Direction dated June 16, 2009.
- (2) Target List for San Juan River Terrace Monitoring Wells and Piezomenter Wells only, per the River Terrace Bioventing System Monitoring Plan.

APPENDIX B DATA VALIDATION

1.0 DATA VALIDATION INTRODUCTION

This summary presents data verification results for groundwater and surface water sampling activities conducted in 2019 at the Bloomfield Terminal pursuant to Section IV.A.2. of the July 2007 Consent Order (NMED, 2007) issued by the New Mexico Environment Department Hazardous Waste Bureau (NMED-HWB), and Section 2.F of Discharge Permit GW-001 (NMOCD, 2017) issued by the New Mexico Energy, Mineral, and Natural Resources Department Oil Conservation Division (EMNRD-0CD). The data review was performed in accordance with the procedures specified in the Order issued by NMED (NMED, 2007), USEPA Functional Guidelines for Organic and Inorganic Data Review, and quality assurance and control parameters set by the project laboratory Hall Environmental Analysis Laboratory, Inc (HEAL). The samples evaluated include groundwater samples collected from monitoring wells installed at the Refinery Complex and North Boundary Barrier, and surface water samples collected from the San Juan River.

A total of 43 groundwater samples, four groundwater "outfall" samples, and eight surface water samples (excluding quality assurance samples) were collected in semi-annual and annual monitoring events between April 3, 2019 and August 28, 2019. Groundwater samples, outfall samples, and surface water samples were submitted to HEAL for the following parameters:

- Volatile organic compounds (VOCs) by USEPA Method 8260B;
- Semi-volatile organic compounds (SVOCs) by USEPA Method 8270C
- Gasoline, diesel, and motor oil range organics by SW-846 Method 8015D;
- Total metals (arsenic, barium, cadmium, chromium, lead, selenium, and silver) and dissolved metals (arsenic, barium, cadmium, calcium, chromium, copper, iron, lead, magnesium, manganese, potassium, selenium, silver, sodium, uranium, and zinc) by SW846 Method 6010B/E200.7; and
- Mercury by EPA Method 7470.

Groundwater and surface water samples were also analyzed for general water quality parameters including, fluoride, chloride, nitrate, nitrite, bromide, phosphorous, sulfate, total carbon dioxide, total alkalinity, carbonate, bicarbonate, total dissolved solids, and specific conductance.

Additionally, 23 quality assurance samples consisting of trip blanks, field blanks, equipment rinsate blanks, and field duplicates were collected and analyzed as part of the investigation activities. Table B-1 presents a summary of the field sample identifications, laboratory sample identifications, and sample collection dates.

2.0 QUALITY CONTROL PARAMETERS REVIEWED

Sample results were subject to a Level II data review that includes an evaluation of the following quality control (QC) parameters:

- Chain-of-Custody;
- Sample Preservation and Temperature Upon Laboratory Receipt;
- Holding Times;
- Blank Contamination (method blanks, trip blanks, field blanks, and equipment rinsate blanks);
- Surrogate Recovery (for organic parameters);
- Laboratory Control Sample (LCS) Recovery and Relative Percent Difference (RPD);
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recovery and RPD;
- Duplicates (field duplicate, laboratory duplicate); and
- Other Applicable QC Parameters.

The data qualifiers used to qualify the analytical results associated with QC parameters outside of the established data quality objectives are defined below:

- J+ The analyte was positively identified; however, the result should be considered an estimated value with a potential high bias.
- J- The analyte was positively identified; however, the result should be considered an estimated value with a potential low bias.
- UJ The reporting limit for a constituent that was not detected is considered an estimated value.
- R Quality control indicates that the data is not usable.

Results qualified as "J+", "J-", or "UJ" are of acceptable data quality and may be used quantitatively to fulfill the objectives of the analytical program, per EPA guidelines.

Results for the performance monitoring events that required qualification based on the data verification are summarized in Table B-2.

2.1 CHAIN-OF-CUSTODY

The chain-of-custody documentation associated with project samples was found to be complete. Chain-of-custodies included sample identifications, date and time of collection, requested parameters, and relinquished/received signatures.

2.2 SAMPLE PRESERVATION AND TEMPERATURE UPON LABORATORY RECEIPT

Samples collected were received preserved and intact by HEAL. Samples were received by the laboratory at a temperature of 6.0 degrees Celsius or lower. Data qualification on lower temperature samples was not required.

2.3 HOLDING TIMES

All samples were extracted and analyzed within method-specified holding time limits with the exception of total carbon dioxide and phosphorus, both general water quality parameters. The recommended holding time for total carbon dioxide analysis is "immediate". Unless the sample is analyzed in the field it is flagged by the laboratory. The holding time for phosphorus is 48 hours. Since analyses were conducted in a reasonable time period after collection of samples and samples were properly preserved, the data was accepted but was flagged as estimated with a potential low bias. Data qualification for exceeding holding times is shown on Table B-2.

2.4 BLANK CONTAMINATION

2.4.1 Method Blank

Method blanks were analyzed at the appropriate frequency. Target compounds were not detected in the method blanks above target screening levels with the following exception:

Lab Report 1908E25

- VOC methylene chloride was detected in the method blank (Batch ID R62453) at a concentration of 0.23 ug/L. The data was qualified "J";
- SVOC 2,4-dinitrophenol was detected in the method blank (Batch ID 47113) at a concentration of 4.4 ug/L. The data was qualified "J"; and
- Mercury was detected in the method blank (Batch ID 47428) at a concentration of 0.000039 mg/L. The data was qualified "J".

Lab Report 1908E78

- Nitrate+Nitrite as N was detected in the method blank (Batch ID A62815) at a concentration of 0.041 mg/L. The data was qualified "J";
- 2,4-Dinitrophenol was detected in the method blank (Batch ID 47113) at a concentration
 of 4.4 ug/L. The data was qualified "J"; and
- Mercury was detected in the method blank (Batch ID 47428) at a concentration of 0.000039 mg/L. The data was qualified "J".

2.4.2 Trip Blank

Trip blanks were analyzed at the appropriate frequency as specified in the Order and Permit. Target compounds were not detected in the trip blanks with the following exceptions:

Lab Report 1908E25 – The following data was flagged with "J" (Analyte detected below quantitation limit) Batch ID R62453.

• Methylene Chloride – 0.18 ug/L vs screening level of 5 ug/L. Methylene chloride was not detected in the method blank. The data was not qualified.

Lab Report 1908E78–010 - The following data was flagged with "J" (Analyte detected below quantitation limit) Batch ID R62584.

- Chlorobenzene 0.48 ug/L vs screening level of 100 ug/L. Chlorobenzene was not detected in the method blank. The data was not qualified; and
- Methylene Chloride 0.19 ug/L vs screening level of 5 ug/L. Methylene chloride was not detected in the method blank. The data was not qualified.

Lab Report 1908E78–017 - The following data was flagged with "J" (Analyte detected below quantitation limit) Batch ID R62584.

- Chlorobenzene 0.48 ug/L vs screening level of 100 ug/L. Chlorobenzene was not detected in the method blank. The data was not qualified; and
- Methylene Chloride 0.18 ug/L vs screening level of 5 ug/L. Methylene chloride was not detected in the method blank. The data was not qualified.

2.4.3 Field Blanks/Equipment Rinsate Blank

Field and equipment rinsate blanks were collected as specified in the Order and Permit. Target compounds were not detected in the field blanks or equipment blanks with the following exceptions:

Lab Report 1908D80-005 (Field Blank #1)

- Total Carbon Dioxide 10 mg CO2/L. The data was flagged with "H" (Holding times for preparation or analysis exceeded). The results were qualified with "J-" in Table B-2; and
- Zinc 0.025 mg/L vs screening level of 10 mg/L. The reporting limit is 0.020 mg/L. In Batch ID A62764 zinc was not detected in the method blank. Zinc was detected in LCS at a concentration of 0.48 mg/L with a spike value of 0.50 mg/L. The results were not qualified.

Lab Report 1908D80-009 (Equipment Blank #1)

- Total Carbon Dioxide 9.6 mg CO2/L. The data was flagged with "H" (Holding times for preparation or analysis exceeded). The results were qualified with a "J-" in Table B-2;
- Nitrogen, Nitrate (as N) 0.10 mg/L. The reporting limit is 0.10 mg/L. In Batch ID R62406 nitrogen, nitrate (as N) was not detected in the method blank. Nitrogen, nitrate (as N) was detected in the LCS at the spike value. The results were not qualified; and
- Zinc 0.022 mg/L vs screening level of 10 mg/L. The reporting limit is 0.020 mg/L. In Batch ID A62764 zinc was not detected in the method blank. Zinc was detected in LCS at

a concentration of 0.48 mg/L. with a spike value of 0.50 mg/L. The results were not qualified.

Lab Report 1908E78-007 (Equipment Blank #2)

- Nitrate+Nitrite as N 0.49 mg/L. The reporting limit is 1.0 mg/L. In Batch ID R62781 nitrate+nitrite as N was not detected in the method blank. Nitrate+Nitrite as N was detected in the LCS at the spike value. The results were not qualified;
- Mercury 0.00011 mg/L. The reporting limit is 0.00020 mg/L. Mercury was detected in the method blank (Batch ID 47428) at a concentration of 0.000039 mg/L. Mercury was detected in the LCS at below spike value. The data was qualified "J"; and
- Zinc 0.016 mg/L vs screening level of 10 mg/L. The reporting limit is 0.020 mg/L. In Batch ID A62764 zinc was not detected in the method blank. Zinc was detected in LCS at a concentration of 0.48 mg/L. with a spike value of 0.50 mg/L. The results were not qualified.

2.4.4 Common Laboratory Contaminants

Per USEPA guidelines, common laboratory contaminants for VOC analysis are acetone, 2-butanone (MEK), cyclohexane, chloromethane, and methylene chloride. Data qualification was not required since COCs were not detected in the method blanks. Methylene chloride was detected above the reporting in the following trip blanks:

Lab Report 1908E25 – The following data was flagged with "J" (Analyte detected below quantitation limit) Batch ID R62453.

• Methylene Chloride – 0.18 ug/L vs screening level of 5 ug/L. Methylene chloride was not detected in the method blank. The data was not qualified.

Lab Report 1908E78–010 - The following data was flagged with "J" (Analyte detected below quantitation limit) Batch ID R62584.

 Methylene Chloride – 0.19 ug/L vs screening level of 5 ug/L. Methylene chloride was not detected in the method blank. The data was not qualified.

Lab Report 1908E78-017 - The following data was flagged with "J" (Analyte detected below quantitation limit) Batch ID R62584.

• Methylene Chloride – 0.18 ug/L vs screening level of 5 ug/L. Methylene chloride was not detected in the method blank. The data was not qualified.

2.4.5 Methanol Blanks

Methanol Blanks are not applicable and were not analyzed.

2.5 SURROGATERECOVERY

Surrogate recoveries for the organic and inorganic analyses were performed at the required frequency and were within laboratory acceptance limits, with the following exceptions:

Lab Report 1904357-001

- Surrogate recovery for bromofluorobenzene (BFB) was above the upper acceptance limit for field sample CW 0+60. The associated detected field sample results for gasoline range organics (GRO) are qualified "J+" due to a potential high bias.
- Surrogate recovery for toluene-d8 was above the upper acceptance limit for field sample CW 0+60. The associated detected field sample results for benzene, ethylbenzene, MTBE, and total xylenes are qualified "J+" due to a potential high bias. Toluene concentrations were non-detectable and were qualified "UJ".

Lab Report 1908E25

Surrogate recoveries for 2-fluorophenol, phenol-d5, and 2,4,6-tribromophenol were below
the lower acceptance limits for the SVOC method blank (Laboratory Batch ID 47113). The
surrogate recoveries for SVOC analysis of MW-38 and MW-12 were within the laboratory
acceptance limits. No data was qualified.

Lab Report 1908G31-001

• Surrogate recovery for toluene-d8 was above the upper acceptance limit for field sample CW 0+60. The associated detected field sample results for benzene, ethylbenzene, MTBE, and total xylenes are qualified "J+" due to a potential high bias. Toluene concentrations were non-detectable and were qualified "UJ".

Data qualification for surrogate recovery is shown on Table B-2.

2.6 LCS RECOVERY AND RELATIVE PERCENT DIFFERENCE

LCS/LCS duplicates were performed at the required frequency and were evaluated based on the following criteria:

- If the analyte recovery was above acceptance limits for the LCS or LCS duplicate, but the analyte was not detected in the associated batch, then data qualification was not required.
- If the analyte recovery was above acceptance limits for the LCS or LCS duplicate and the analyte was detected in the associated batch, then the analyte results were qualified "J+" to account for a potential high bias.
- If the analyte recovery was below acceptance limits for LCS or LCS duplicate then the analyte results in the associated analytical batch were qualified ("UJ" for non-detects and "J-" for detected results) to account for a potential low bias.

LCS/LCSD percent recoveries and relative percent differences (RPDs) were within acceptance limits and no qualification was required.

2.7 MS/MSD RECOVERY AND RELATIVE PERCENT DIFFERENCE

MS/MSD samples were performed at the required frequency and were evaluated by the following criteria:

- If the MS or MSD recovery for an analyte was above acceptance limits but the analyte
 was not detected in the associated analytical batch, then data qualification was not
 required.
- If the MS or MSD recovery for an analyte was above acceptance limits and the analyte was detected in the associated analytical batch, then analyte results were qualified "J+" to account for a potential high bias.
- Low MS/MSD recoveries for inorganic parameters result in sample qualification of the associated analytical batch with a "J-".
- Results were not qualified based on non-project specific MS/MSD (i.e., batch QC) recoveries.

Some lab reports do not report MS/MSD results if none of the samples included under that report were used for the MS/MSD; however, in many instances the sample used for the MS/MSD was a sample of similar matrix materials submitted by Marathon in a different data set and its MS/MSD results were included in other lab reports, which are included in this data validation review.

MS/MSD percent recoveries and RPDs were within acceptance limits and no qualification was required with the following exceptions:

Lab Report 1908D80

• The MS/MSD recoveries for mercury in Laboratory Batch ID 47323 were slightly below the acceptable range. The mercury data was qualified "UJ" for MW-13.

Lab Report 1908E25

• The MS/MSD recoveries for uranium in Laboratory Batch ID A62764 were below the acceptable range. The uranium data was qualified "UJ" for MW-32.

Lab Report 1908G31

• The MS/MSD recoveries for the surrogate toluene-d8 in Laboratory Batch ID SL_W62593 were above the acceptable range. The associated detected field sample results for benzene, ethylbenzene, MTBE, and total xylenes are qualified "J+" due to a potential high bias. Toluene concentrations were non-detectable and were qualified "UJ".

2.8 DUPLICATES

2.8.1 Field Duplicates

Field duplicates were collected at a rate as stated in the Order and Permit. The RPDs between the field duplicate and its associated sample were calculated and are presented in Table B-3. The field duplicates were evaluated by the following criteria:

• If an analyte was detected at a concentration greater than five times the method reporting limit, the RPD should be less than 25 percent for ground water samples.

- If an analyte was detected at a concentration that is less than five times the method reporting limit, then the difference between the sample and the field duplicate should not exceed the method reporting limit.
- Duplicate RPDs are calculated by dividing the difference of the concentrations by the average of the concentrations.

Field duplicate RPDs were within acceptance limits except for the following:

Lab Reports 1908D80-006 (MW-11) and 1908D80-007 (DUPLICATE #1)

- 4-Isopropyltoluene concentrations of 3 ug/L vs 2.3 ug/L in the duplicate sample. The RPD was 26.4%;
- Sec-Butylbenzene concentrations of 13 ug/L vs 10 ug/L in the duplicate sample. The RPD was 26.1%;
- Sulfate concentrations of 6.9 mg/L vs 9.6 mg/L in the duplicate sample. The RPD was 32.7%;
- Total lead concentrations of 0.014 mg/L vs 0.0072 mg/L in the duplicate sample. The RPD was 64.2%; and
- GRO concentrations of 2.4 mg/L vs 1.8 mg/L in the duplicate sample. The RPD was 28.6%.

Lab Reports 1908E78-004 (MW-70) and 1908E78-006 (DUPLICATE #2)

• Zinc concentrations of 0.017 mg/L vs 0.023 mg/L in the duplicate sample. The RPD was 30.0%.

Lab Reports 1908G31-002 (OW 25+70) and 1908G31-003 (DUPLICATE #3)

• GRO concentrations of 0.052 mg/L vs 0.073 mg/L in the duplicate sample. The RPD was 33.6%.

3.0 COMPLETENESS SUMMARY

The following equation was used to calculate the technical completeness:

% Technical Completeness =
$$\left(\frac{Number\ of\ usable\ results}{Number\ of\ reported\ results}\right) x 100$$

The technical completeness attained for semi-annual and annual monitoring activities conducted in 2019 was 100 percent. The completeness results are provided in Table B-4. The analytical results for the required analytes per the Order and Permit were considered usable for the intended purposes and the project DQOs have been met.

Table B-1 Sample Identification - 2019 Annual Monitoring Report Western Refining Southwest, Inc. - Bloomfield Terminal

| Sample ID | Lab ID | Date Collected | Sample Type |
|--------------------|-------------|----------------|-------------|
| MW-1 | 1904276-001 | 04/03/19 | GW |
| Field Blank #1 | 1904276-002 | 04/03/19 | FB |
| Equipment Blank #1 | 1904276-003 | 04/03/19 | EB |
| MW-35 | 1904276-004 | 04/03/19 | GW |
| MW-13 | 1904276-005 | 04/03/19 | GW |
| Trip Blank | 1904276-006 | 04/03/19 | TB |
| CW 0+60 | 1904357-001 | 04/03/19 | GW |
| MW-12 | 1904357-002 | 04/04/19 | GW |
| MW-38 | 1904357-003 | 04/04/19 | GW |
| MW-37 | 1904357-004 | 04/04/19 | GW |
| OW 25+70 | 1904357-005 | 04/04/19 | GW |
| Trip Blank | 1904357-006 | 04/04/19 | TB |
| East Outfall #2 | 1904357-007 | 04/04/19 | Outfall |
| East Outfall #3 | 1904357-008 | 04/04/19 | Outfall |
| OW 8+10 | 1904419-001 | 04/05/19 | GW |
| OW 19+50 | 1904419-002 | 04/05/19 | GW |
| OW 22+00 | 1904419-003 | 04/05/19 | GW |
| OW 23+90 | 1904419-004 | 04/05/19 | GW |
| CW 25+95 | 1904419-005 | 04/05/19 | GW |
| Duplicate #1 | 1904419-006 | 04/05/19 | FD |
| Field Blank #2 | 1904419-007 | 04/05/19 | FB |
| Trip Blank | 1904419-008 | 04/05/19 | TB |
| Upstream | 1904422-001 | 04/05/19 | SW |
| North of 45 | 1904422-002 | 04/05/19 | SW |
| North of 46 | 1904422-003 | 04/05/19 | SW |
| Downstream | 1904422-004 | 04/05/19 | SW |
| Trip Blank | 1904422-005 | 04/05/19 | TB |
| East Outfall #2 | 1908972-001 | 08/15/19 | Outfall |
| East Outfall #3 | 1908972-002 | 08/15/19 | Outfall |
| Upstream | 1908972-003 | 08/16/19 | SW |
| North of 45 | 1908972-004 | 08/16/19 | SW |
| North of 46 | 1908972-005 | 08/16/19 | SW |
| Downstream | 1908972-006 | 08/16/19 | SW |
| Trip Blank | 1908972-007 | 08/16/19 | TB |
| MW-1 | 1908D80-001 | 08/21/19 | GW |
| MW-13 | 1908D80-002 | 08/21/19 | GW |
| Trip Blank | 1908D80-003 | 08/21/19 | TB |
| MW-34 | 1908D80-004 | 08/21/19 | GW |
| Field Blank #1 | 1908D80-005 | 08/21/19 | FB |
| MW-11 | 1908D80-006 | 08/21/19 | GW |
| DUPLICATE #1 | 1908D80-007 | 08/21/19 | FD |
| Trip Blank | 1908D80-008 | 08/21/19 | TB |
| EQUIPMENT BLANK #1 | 1908D80-009 | 08/21/19 | EB |
| MW-32 | 1908E25-001 | 08/22/19 | GW |
| MW-27 | 1908E25-002 | 08/22/19 | GW |
| MW-38 | 1908E25-003 | 08/22/19 | GW |
| Trip Blank | 1908E25-004 | 08/22/19 | TB |
| MW-37 | 1908E25-004 | 08/22/19 | GW |
| IVIVV-3/ | T900E70-002 | 00/22/19 | GW |

Table B-1
Sample Identification - 2019 Annual Monitoring Report
Western Refining Southwest, Inc. - Bloomfield Terminal

| Sample ID | Lab ID | Date Collected | Sample Type |
|----------------|-------------|----------------|-------------|
| MW-35 | 1908E25-006 | 08/22/19 | GW |
| MW-12 | 1908E25-007 | 08/21/19 | GW |
| MW-59 | 1908E78-001 | 08/22/19 | GW |
| MW-63 | 1908E78-002 | 08/22/19 | GW |
| MW-64 | 1908E78-003 | 08/22/19 | GW |
| MW-70 | 1908E78-004 | 08/23/19 | GW |
| Trip Blank | 1908E78-005 | 08/23/19 | TB |
| DUPLICATE #2 | 1908E78-006 | 08/23/19 | FD |
| FIELD BLANK #2 | 1908E78-007 | 08/23/19 | FB |
| MW-44 | 1908E78-008 | 08/23/19 | GW |
| MW-62 | 1908E78-009 | 08/23/19 | GW |
| Trip Blank | 1908E78-010 | 08/23/19 | TB |
| MW-31 | 1908E78-011 | 08/23/19 | GW |
| MW-29 | 1908E78-012 | 08/23/19 | GW |
| MW-53 | 1908E78-013 | 08/23/19 | GW |
| MW-52 | 1908E78-014 | 08/23/19 | GW |
| MW-67 | 1908E78-015 | 08/23/19 | GW |
| MW-68 | 1908E78-016 | 08/23/19 | GW |
| Trip Blank | 1908E78-017 | 08/23/19 | TB |
| CW 0+60 | 1908G31-001 | 08/26/19 | GW |
| OW 25+70 | 1908G31-002 | 08/26/19 | GW |
| DUPLICATE #3 | 1908G31-003 | 08/26/19 | FD |
| OW 8+10 | 1908G31-004 | 08/27/19 | GW |
| OW 19+50 | 1908G31-005 | 08/27/19 | GW |
| OW 22+00 | 1908G31-006 | 08/27/19 | GW |
| OW 23+90 | 1908G31-007 | 08/27/19 | GW |
| CW 25+95 | 1908G31-008 | 08/27/19 | GW |
| FIELD BLANK #3 | 1908G31-009 | 08/27/19 | FB |
| TRIP BLANK | 1908G31-010 | 08/27/19 | TB |
| MW-27 | 1908 12-001 | 08/28/19 | GW |

Notes:

GW = Groundwater TB = Trip Blank

FD = Field Duplicate EB = Equipment Blank

SW = Surface Water FB = Field Blank

Table B-2 Qualified Data - 2019 Annual Monitoring Report Western Refining Southwest, Inc. - Bloomfield Terminal

| SAMPLE ID | DATE COLLECTED | ANALYTE | RESULTS | UNITS | SAMPLE TYPE | QUALIFIER | COMMENTS |
|-----------------|-------------------|-----------------------------------|---------|----------|----------------|-----------|---|
| CW 0+60 | 04/03/19 | Gasoline Range Organics | 3.1 | mg/L | GW | J+ | Qualified high bias - high recovery in surrogate. |
| CW 0+60 | 04/03/19 | Benzene | 0.0021 | mg/L | GW | J+ | Qualified high bias - high recovery in surrogate. |
| CW 0+60 | 04/03/19 | Toluene | <0.001 | mg/L | GW | UJ | Qualified high bias - high recovery in surrogate. |
| CW 0+60 | 04/03/19 | Ethylbenzene | 0.004 | mg/L | GW | J+ | Qualified high bias - high recovery in surrogate. |
| CW 0+60 | 04/03/19 | MTBE | 0.0012 | mg/L | GW | J+ | Qualified high bias - high recovery in surrogate. |
| CW 0+60 | 04/03/19 | Total Xylenes | 0.0018 | mg/L | GW | J+ | Qualified high bias - high recovery in surrogate. |
| East Outfall #2 | 04/04/19 | Total Carbon Dioxide | 310 | mg CO2/L | GW | J- | Qualified low bias - analysis outside holding time. |
| East Outfall #3 | 04/04/19 | Total Carbon Dioxide | 300 | mg CO2/L | GW | J- | Qualified low bias - analysis outside holding time. |
| Upstream | 04/05/19 | Total Carbon Dioxide | 87 | mg CO2/L | SW | J- | Qualified low bias - analysis outside holding time. |
| Upstream | 04/05/19 | Phosphorus, Orthophosphate (As P) | <5 | mg/L | SW | UJ | Qualified low bias - analysis outside holding time. |
| Upstream | 04/05/19 | Arsenic | <0.020 | mg/L | SW | UJ | Qualified high bias - detection of arsenic in method blank. |
| North of 45 | 04/05/19 | Total Carbon Dioxide | 86 | mg CO2/L | SW | J- | Qualified low bias - analysis outside holding time. |
| North of 45 | 04/05/19 | Phosphorus, Orthophosphate (As P) | <5 | mg/L | SW | UJ | Qualified low bias - analysis outside holding time. |
| North of 46 | 04/05/19 | Total Carbon Dioxide | 92 | mg CO2/L | SW | J- | Qualified low bias - analysis outside holding time. |
| North of 46 | 04/05/19 | Phosphorus, Orthophosphate (As P) | <5 | mg/L | SW | UJ | Qualified low bias - analysis outside holding time. |
| Downstream | 04/05/19 | Total Carbon Dioxide | 89 | mg CO2/L | SW | J- | Qualified low bias - analysis outside holding time. |
| Downstream | 04/05/19 | Phosphorus, Orthophosphate (As P) | <5 | mg/L | SW | UJ | Qualified low bias - analysis outside holding time. |
| East Outfall #2 | 08/15/19 | Total Carbon Dioxide | 300 | mg CO2/L | GW | J- | Qualified low bias - analysis outside holding time. |
| East Outfall #2 | 08/15/19 | Phosphorus, Orthophosphate (As P) | <2.5 | mg/L | GW | UJ | Qualified low bias - analysis outside holding time. |
| East Outfall #3 | 08/15/19 | Total Carbon Dioxide | 290 | mg CO2/L | GW | J- | Qualified low bias - analysis outside holding time. |
| East Outfall #3 | 08/15/19 | Phosphorus, Orthophosphate (As P) | <0.50 | mg/L | GW | UJ | Qualified low bias - analysis outside holding time. |
| Upstream | 08/16/19 | Total Carbon Dioxide | 79 | mg CO2/L | SW | J- | Qualified low bias - analysis outside holding time. |
| Upstream | 08/16/19 | Phosphorus, Orthophosphate (As P) | <2.5 | mg/L | SW | UJ | Qualified low bias - analysis outside holding time. |
| North of 45 | 08/16/19 | Total Carbon Dioxide | 80 | mg CO2/L | SW | J- | Qualified low bias - analysis outside holding time. |
| North of 45 | 08/16/19 | Phosphorus, Orthophosphate (As P) | <0.50 | mg/L | SW | UJ | Qualified low bias - analysis outside holding time. |
| North of 46 | 08/16/19 | Total Carbon Dioxide | 80 | mg CO2/L | SW | J- | Qualified low bias - analysis outside holding time. |
| North of 46 | 08/16/19 | Phosphorus, Orthophosphate (As P) | <0.50 | mg/L | SW | UJ | Qualified low bias - analysis outside holding time. |
| Downstream | 08/16/19 | Total Carbon Dioxide | 80 | mg CO2/L | SW | J- | Qualified low bias - analysis outside holding time. |
| Downstream | 08/16/19 | Phosphorus, Orthophosphate (As P) | <0.50 | mg/L | SW | UJ | Qualified low bias - analysis outside holding time. |
| MW-1 | 08/21/19 | Total Carbon Dioxide | 280 | mg CO2/L | GW | J- | Qualified low bias - analysis outside holding time. |

Table B-2 Qualified Data - 2019 Annual Monitoring Report Western Refining Southwest, Inc. - Bloomfield Terminal

| SAMPLE ID | DATE COLLECTED | ANALYTE | RESULTS | UNITS | SAMPLE TYPE | QUALIFIER | COMMENTS |
|--------------------|-------------------|-----------------------------------|---------|----------|----------------|-----------|--|
| MW-1 | 08/21/19 | Phosphorus, Orthophosphate (As P) | <2.5 | mg/L | GW | UJ | Qualified low bias - analysis outside holding time. |
| MW-13 | 08/21/19 | Total Carbon Dioxide | 860 | mg CO2/L | GW | J- | Qualified low bias - analysis outside holding time. |
| MW-13 | 08/21/19 | Phosphorus, Orthophosphate (As P) | <2.5 | mg/L | GW | UJ | Qualified low bias - analysis outside holding time. |
| MW-34 | 08/21/19 | Total Carbon Dioxide | 1100 | mg CO2/L | GW | J- | Qualified low bias - analysis outside holding time. |
| Field Blank #1 | 08/21/19 | Total Carbon Dioxide | 10 | mg CO2/L | FB | J- | Qualified low bias - analysis outside holding time. |
| MW-11 | 08/21/19 | Total Carbon Dioxide | 970 | mg CO2/L | GW | J- | Qualified low bias - analysis outside holding time. |
| DUPLICATE #1 | 08/21/19 | Total Carbon Dioxide | 960 | mg CO2/L | FD | J- | Qualified low bias - analysis outside holding time. |
| EQUIPMENT BLANK #1 | 08/21/19 | Total Carbon Dioxide | 9.6 | mg CO2/L | EB | J- | Qualified low bias - analysis outside holding time. |
| MW-13 | 08/21/19 | Mercury | <0.001 | mg/L | GW | UJ | Qualified low bias - low recovery of mercury in the matrix spike and matrix spike duplicate. |
| MW-32 | 08/22/19 | Phosphorus, Orthophosphate (As P) | <2.5 | mg/L | GW | UJ | Qualified low bias - analysis outside holding time. |
| MW-32 | 08/22/19 | Total Carbon Dioxide | 160 | mg CO2/L | GW | J- | Qualified low bias - analysis outside holding time. |
| MW-27 | 08/22/19 | Phosphorus, Orthophosphate (As P) | <2.5 | mg/L | GW | UJ | Qualified low bias - analysis outside holding time. |
| MW-27 | 08/22/19 | Total Carbon Dioxide | 230 | mg CO2/L | GW | J- | Qualified low bias - analysis outside holding time. |
| MW-38 | 08/22/19 | Phosphorus, Orthophosphate (As P) | <2.5 | mg/L | GW | UJ | Qualified low bias - analysis outside holding time. |
| MW-38 | 08/22/19 | Total Carbon Dioxide | 620 | mg CO2/L | GW | J- | Qualified low bias - analysis outside holding time. |
| MW-37 | 08/22/19 | Phosphorus, Orthophosphate (As P) | <2.5 | mg/L | GW | UJ | Qualified low bias - analysis outside holding time. |
| MW-37 | 08/22/19 | Total Carbon Dioxide | 520 | mg CO2/L | GW | J- | Qualified low bias - analysis outside holding time. |
| MW-35 | 08/22/19 | Phosphorus, Orthophosphate (As P) | <2.5 | mg/L | GW | UJ | Qualified low bias - analysis outside holding time. |
| MW-35 | 08/22/19 | Total Carbon Dioxide | 920 | mg CO2/L | GW | J- | Qualified low bias - analysis outside holding time. |
| MW-12 | 08/22/19 | Phosphorus, Orthophosphate (As P) | <2.5 | mg/L | GW | UJ | Qualified low bias - analysis outside holding time. |
| MW-12 | 08/22/19 | Total Carbon Dioxide | 140 | mg CO2/L | GW | J- | Qualified low bias - analysis outside holding time. |
| MW-32 | 08/22/19 | Uranium | <0.10 | mg/L | GW | UJ | Qualified low bias - low recovery of uranium in the matrix spike and matrix spike duplicate. |
| CW 0+60 | 08/26/19 | Benzene | 0.001 | mg/L | GW | J+ | Qualified high bias - high recovery in surrogate. |
| CW 0+60 | 08/26/19 | Toluene | <0.001 | mg/L | GW | UJ | Qualified low bias - low recovery in surrogate. |
| CW 0+60 | 08/26/19 | Ethylbenzene | 0.0041 | mg/L | GW | J+ | Qualified high bias - high recovery in surrogate. |
| CW 0+60 | 08/26/19 | МТВЕ | 0.0011 | mg/L | GW | J+ | Qualified high bias - high recovery in surrogate. |
| CW 0+60 | 08/26/19 | Total Xylenes | 0.0013 | mg/L | GW | J+ | Qualified high bias - high recovery in surrogate. |

Table B-2 Qualified Data - 2019 Annual Monitoring Report Western Refining Southwest, Inc. - Bloomfield Terminal

| SAMPLE ID | DATE COLLECTED | ANALYTE | RESULTS | UNITS | SAMPLE TYPE | QUALIFIER | COMMENTS |
|-----------|-------------------|---------|---------|-------|----------------|-----------|----------|
|-----------|-------------------|---------|---------|-------|----------------|-----------|----------|

Notes:

GW = Groundwater TB = Trip Blank FD = Field Duplicate EB = Equipment Blank

SW = Surface Water FB = Field Blank

| Parameter | OW 22+00 1904419-003 4/5/2019 | Duplicate #1 1904419-006 4/5/2019 | RPD % |
|-----------------------------------|-------------------------------------|---|----------|
| | Sample Result | Field Duplicate | |
| Volatile Organic Compounds (ug/L) | | <u></u> | |
| 1,1,1,2-Tetrachloroethane | | | NC |
| 1,1,1-Trichloroethane | | | NC |
| 1,1,2,2-Tetrachloroethane | | | NC |
| 1,1,2-Trichloroethane | | | NC |
| 1,1-Dichloroethane | | | NC |
| 1,1-Dichloroethene | | | NC |
| 1,1-Dichloropropene | | | NC |
| 1,2,3-Trichlorobenzene | | | NC |
| 1,2,3-Trichloropropane | | | NC |
| 1,2,4-Trichlorobenzene | | | NC |
| 1,2,4-Trimethylbenzene | | | NC |
| 1,2-Dibromo-3-chloropropane | | | NC |
| 1,2-Dibromoethane (EDB) | | | NC |
| 1,2-Dichlorobenzene | | | NC |
| 1,2-Dichloroethane (EDC) | | | NC |
| 1,2-Dichloropropane | | | NC |
| 1,3,5-Trimethylbenzene | | | NC |
| 1.3-Dichlorobenzene | | *** | NC |
| 1,3-Dichloropropane | | | NC |
| 1,4-Dichlorobenzene | | | NC |
| 1-Methylnaphthalene | | | NC |
| 2,2-Dichloropropane | | | NC |
| 2-Butanone | | | NC |
| 2-Chlorotoluene | | | NC |
| 2-Unior otolidene | | | NC |
| | | | |
| 2-Methylnaphthalene | | | NC NC |
| 4-Chlorotoluene | | | NC NC |
| 4-Isopropyltoluene | | | |
| 4-Methyl-2-pentanone | | | NC |
| Acetone | | | NC |
| Benzene | <1.0 | <1.0 | NC |
| Bromobenzene | | | NC |
| Bromodichloromethane | | | NC |
| Bromoform | | | NC |
| Bromomethane | | | NC |
| Carbon disulfide | | | NC |
| Carbon Tetrachloride | | | NC |
| Chlorobenzene | | | NC |
| Chloroethane | | | NC |
| Chloroform | | | NC |
| Chloromethane | | | NC |
| cis-1,2-DCE | | | NC |
| cis-1,3-Dichloropropene | | | NC |
| Dibromochloromethane | | | NC |
| Dibromomethane | | | NC |
| Dichlorodifluoromethane | | *** | NC |
| Ethylbenzene | <1.0 | <1.0 | NC |
| Hexachlorobutadiene | | | NC |
| Isopropylbenzene | | | NC |
| Methyl tert-butyl ether (MTBE) | <1.0 | < 1.0 | NC |
| Methylene Chloride | | | NC |
| Naphthalene | | | NC |
| n-Butylbenzene | | | NC NC |
| | | | NC |
| n-Propylbenzene | | | |
| sec-Butylbenzene | | | NC NC |
| Styrene | | | NC |
| tert-Butylbenzene | | | NC |
| Tetrachloroethene (PCE) | | | NC |

| | 0W 22+00 | Duplicate #1 | |
|-------------------------------------|---------------|-----------------|-------|
| Down water | 1904419-003 | 1904419-006 | |
| Parameter — | 4/5/2019 | 4/5/2019 | RPD % |
| | Sample Result | Field Duplicate | |
| Volatile Organic Compounds (ug/L) | | | • |
| Toluene | < 1.0 | < 1.0 | NC |
| trans-1,2-DCE | | | NC |
| trans-1,3-Dichloropropene | | | NC |
| Trichloroethene (TCE) | | | NC |
| Trichlorofluoromethane | | | NC |
| Vinyl chloride | | | NC |
| Xylenes, Total | <1.5 | <1.5 | NC |
| General Chemistry (mg/L) | | | |
| Fluoride | | | NC |
| Chloride | | | NC |
| Nitrite | | | NC |
| Bromide | | | NC |
| Nitrate | | | NC |
| Phosphorus | | *** | NC |
| Sulfate | | | NC |
| Carbon Dioxide (CO ₂) | | | NC |
| Alkalinity (CaCO ₃) | | | NC |
| Bicarbonate (CaCO ₃) | | | NC |
| Total Metals (mg/L) | | | + |
| Arsenic | | | NC |
| Barium | | *** | NC |
| Cadmium | | | NC |
| Chromium | | | NC |
| Lead | | | NC |
| Selenium | | | NC |
| Silver | | | NC |
| Mercury | *** | | NC |
| Dissolved Metals (mg/L) | • | | • |
| Arsenic | | | NC |
| Barium | | | NC |
| Cadmium | | | NC |
| Calcium | | | NC |
| Chromium | | | NC |
| Copper | | | NC |
| Iron | | | NC |
| Lead | | | NC |
| Magnesium | | | NC |
| Manganese | | | NC |
| Potassium | | | NC |
| Selenium | | | NC |
| Silver | | | NC |
| Sodium | | | NC |
| Uranium | | | NC |
| Zinc | | | NC |
| Total Petroleum Hydrocarbons (mg/L) | <u> </u> | | |
| Diesel Range Organics | <0.40 | <0.040 | NC |
| Gasoline Range Organics | <0.050 | <0.050 | NC |
| Motor Oil Range Organics | <2.5 | <2.5 | NC |

Notes

RPD = Relative percent difference; [(difference)/(average)]* 100

NC = Not calculated; RPD values were not calculated for non-detects or J-flagged data

ug/L = micrograms per liter

mg/L = milligrams per liter

Table B-3
Field Duplicate Summary - 2019 Annual Monitoring Report
Western Refining Southwest, Inc. - Bloomfield Terminal

| | MW-11 | DUPLICATE #1 | |
|-----------------------------------|---------------|-----------------|-------|
| Parameter - | 1908D80-006 | 1908D80-007 | RPD % |
| | 8/21/2019 | 8/21/2019 | |
| | Sample Result | Field Duplicate | |
| Volatile Organic Compounds (ug/L) | | | |
| 1,1,1,2-Tetrachloroethane | < 1.0 | < 1.0 | NC |
| 1,1,1-Trichloroethane | < 1.0 | < 1.0 | NC |
| 1,1,2,2-Tetrachloroethane | < 2.0 | < 2.0 | NC |
| 1,1,2-Trichloroethane | < 1.0 | < 1.0 | NC |
| 1,1-Dichloroethane | < 1.0 | < 1.0 | NC |
| 1,1-Dichloroethene | < 1.0 | < 1.0 | NC |
| 1,1-Dichloropropene | < 1.0 | < 1.0 | NC |
| 1,2,3-Trichlorobenzene | < 1.0 | < 1.0 | NC |
| 1,2,3-Trichloropropane | < 2.0 | < 2.0 | NC |
| 1,2,4-Trichlorobenzene | < 1.0 | < 1.0 | NC |
| 1,2,4-Trimethylbenzene | 110 | 93 | 16.7 |
| 1,2-Dibromo-3-chloropropane | < 2.0 | < 2.0 | NC |
| 1,2-Dibromoethane (EDB) | < 1.0 | < 1.0 | NC |
| 1,2-Dichlorobenzene | < 1.0 | < 1.0 | NC |
| 1,2-Dichloroethane (EDC) | < 1.0 | < 1.0 | NC |
| 1,2-Dichloropropane | < 1.0 | < 1.0 | NC |
| 1,3,5-Trimethylbenzene | < 1.0 | < 1.0 | NC |
| 1,3-Dichlorobenzene | < 1.0 | < 1.0 | NC |
| 1,3-Dichloropropane | < 1.0 | < 1.0 | NC |
| 1,4-Dichlorobenzene | < 1.0 | < 1.0 | NC |
| 1-Methylnaphthalene | 18 | 16 | 11.8 |
| 2,2-Dichloropropane | < 2.0 | < 2.0 | NC |
| 2-Butanone | < 10 | < 10 | NC |
| 2-Chlorotoluene | < 1.0 | < 1.0 | NC |
| 2-Hexanone | < 10 | < 10 | NC |
| 2-Methylnaphthalene | 28 | 24 | 15.4 |
| 4-Chlorotoluene | < 1.0 | < 1.0 | NC |
| 4-Isopropyltoluene | 3 | 2.3 | 26.4 |
| 4-Methyl-2-pentanone | < 10 | < 10 | NC |
| Acetone | < 10 | < 10 | NC |
| Benzene | 8 | 7 | 13.3 |
| Bromobenzene | < 1.0 | < 1.0 | NC |
| Bromodichloromethane | < 1.0 | < 1.0 | NC |
| Bromoform | < 1.0 | < 1.0 | NC |
| Bromomethane | < 3.0 | < 3.0 | NC |
| Carbon disulfide | < 10 | < 10 | NC |
| Carbon Tetrachloride | < 1.0 | < 1.0 | NC |
| Chlorobenzene | < 1.0 | < 1.0 | NC |
| Chloroethane | < 2.0 | < 2.0 | NC |
| Chloroform | < 1.0 | < 1.0 | NC |
| Chloromethane | < 3.0 | < 3.0 | NC |
| cis-1,2-DCE | < 1.0 | < 1.0 | NC |
| cis-1,3-Dichloropropene | < 1.0 | < 1.0 | NC |
| Dibromochloromethane | < 1.0 | < 1.0 | NC |
| Dibromomethane | < 1.0 | < 1.0 | NC |
| Dichlorodifluoromethane | < 1.0 | < 1.0 | NC |
| Ethylbenzene | < 1.0 | < 1.0 | NC |
| Hexachlorobutadiene | < 1.0 | < 1.0 | NC |
| Isopropylbenzene | 81 | 71 | 13.2 |
| Methyl tert-butyl ether (MTBE) | < 1.0 | < 1.0 | 0.0 |
| Methylene Chloride | < 3.0 | < 3.0 | NC |
| Naphthalene | 99 | 92 | 7.3 |
| n-Butylbenzene | 3.3 | <0.003 | NC |
| n-Propylbenzene | | | |
| n-Fropylbenzene) | 86 | 70 | 20.5 |

Table B-3
Field Duplicate Summary - 2019 Annual Monitoring Report
Western Refining Southwest, Inc. - Bloomfield Terminal

| Parameter | MW-11 1908D80-006 8/21/2019 | DUPLICATE #1 1908D80-007 8/21/2019 | RPD % |
|--|-----------------------------------|--|----------|
| | | Field Duplicate | |
| Volatile Organic Compounds (ug/L) | Sample Result | Field Duplicate | |
| Styrene | < 1.0 | < 1.0 | NC |
| tert-Butylbenzene | 2.5 | 2.1 | 17.4 |
| Tetrachloroethene (PCE) | < 1.0 | < 1.0 | NC |
| Toluene | < 1.0 | < 1.0 | NC NC |
| trans-1,2-DCE | < 1.0 | < 1.0 | NC NC |
| trans-1,3-Dichloropropene | < 1.0 | < 1.0 | NC |
| Trichloroethene (TCE) | < 1.0 | < 1.0 | NC |
| Trichlorofluoromethane | < 1.0 | < 1.0 | NC |
| Vinyl chloride | < 1.0 | < 1.0 | NC |
| Xylenes, Total | < 1.5 | < 1.5 | NC |
| Semi-Volatile Organic Compounds (ug/L | | | |
| 1,2,4-Trichlorobenzene | < 10 | < 10 | NC |
| 1,2-Dichlorobenzene | < 10 | < 10 | NC |
| 1,3-Dichlorobenzene | < 10 | < 10 | NC |
| 1,4-Dichlorobenzene | < 10 | < 10 | NC |
| 1-Methylnaphthalene | 34 | < 10 | NC |
| 2,4,5-Trichlorophenol | < 10 | < 10 | NC |
| 2,4,6-Trichlorophenol | < 10 | < 10 | NC |
| 2,4-Dichlorophenol | < 20 | < 20 | NC |
| 2,4-Dimethylphenol | < 10 | < 10 | NC |
| 2,4-Dinitrophenol | < 20 | < 20 | NC |
| 2,4-Dinitrotoluene | < 10 | < 10 | NC |
| 2,6-Dinitrotoluene | < 10 | < 10 | NC |
| 2-Chloronaphthalene | < 10 | < 10 | NC |
| 2-Chlorophenol | < 10 | < 10 | NC |
| 2-Methylnaphthalene | 24 | < 10 | NC |
| 2-Methylphenol | < 10 | < 10 | NC |
| 2-Nitroaniline | < 10 | < 10 | NC |
| 2-Nitrophenol | < 10 | < 10 | NC |
| 3+4-Methylphenol | < 10 | < 10 | NC |
| 3,3´-Dichlorobenzidine | < 10 | < 10 | NC |
| 3-Nitroaniline | < 10 | < 10 | NC |
| 4,6-Dinitro-2-methylphenol | < 20 | < 20 | NC |
| 4-Bromophenyl phenyl ether | < 10 | < 10 | NC |
| 4-Chloro-3-methylphenol | < 10 | < 10 | NC |
| 4-Chloroaniline | < 10 | < 10 | NC |
| 4-Chlorophenyl phenyl ether | < 10 | < 10 | NC |
| 4-Nitroaniline | < 10 | < 10 | NC |
| 4-Nitrophenol | < 10 | < 10 | NC |
| Acenaphthene | < 10 | < 10 | NC |
| Acenaphthylene | < 10 | < 10 | NC |
| Aniline | < 10 | < 10 | NC |
| Anthracene | < 10 | < 10 | NC |
| Azobenzene | < 10 | < 10 | NC |
| Benz(a)anthracene | < 10 | < 10 | NC |
| Benzo(a)pyrene | < 10 | < 10 | NC NC |
| Benzo(b)fluoranthene | < 10 | < 10 | NC NC |
| Benzo(g,h,i)perylene | < 10 | < 10 | NC NC |
| Benzo(k)fluoranthene | < 10 | < 10 | NC |
| Benzoic acid Benzyl alcohol | < 20 < 10 | < 20 < 10 | NC NC |
| Bis(2-chloroethoxy)methane | < 10 | < 10 | NC NC |
| Bis(2-chloroethyl)ether | < 10 | < 10 | NC NC |
| Bis(2-chloroisopropyl)ether | < 10 | < 10 | NC NC |
| Bis(2-chloroisopropyl)ether Bis(2-ethylhexyl)phthalate | < 10 | < 10 | NC NC |
| Butyl benzyl phthalate | < 10 | < 10 | NC NC |
| Carbazole | < 10 | < 10 | NC NC |
| Chrysene | < 10 | < 10 | NC |
| Chrysene | < 10 | / 1U | INC |

Table B-3
Field Duplicate Summary - 2019 Annual Monitoring Report
Western Refining Southwest, Inc. - Bloomfield Terminal

| | MW-11 1908D80-006 | DUPLICATE #1 1908D80-007 | |
|-------------------------------------|----------------------|-----------------------------|-----------|
| Parameter | 8/21/2019 | 8/21/2019 | — RPD % |
| | Sample Result | Field Duplicate | |
| Semi-Volatile Organic Compounds (ug | - | i leid Duplicate | |
| Di-n-butyl phthalate | < 10 | < 10 | NC |
| Di-n-octyl phthalate | < 10 | < 10 | NC |
| | < 10 | < 10 | NC |
| Dibenz(a,h)anthracene | < 10 | < 10 | |
| Dibenzofuran | < 10 | | NC |
| Diethyl phthalate | | < 10 | NC NC |
| Dimethyl phthalate | < 10 | < 10 | |
| Fluoranthene | < 10 | < 10 | NC |
| Fluorene | < 10 | < 10 | NC |
| Hexachlorobenzene | < 10 | < 10 | NC |
| Hexachlorobutadiene | < 10 | < 10 | NC |
| Hexachlorocyclopentadiene | < 10 | < 10 | NC |
| Hexachloroethane | < 10 | < 10 | NC |
| Indeno(1,2,3-cd)pyrene | < 10 | < 10 | NC |
| Isophorone | < 10 | < 10 | NC |
| N-Nitrosodi-n-propylamine | < 10 | < 10 | NC |
| N-Nitrosodimethylamine | < 10 | < 10 | NC |
| N-Nitrosodiphenylamine | < 10 | < 10 | NC |
| Naphthalene | 85 | < 10 | NC |
| Nitrobenzene | < 10 | < 10 | NC |
| Pentachlorophenol | < 20 | < 20 | NC |
| Phenanthrene | < 10 | < 10 | NC |
| Phenol | < 10 | < 10 | NC |
| Pyrene | < 10 | < 10 | NC |
| Pyridine | < 10 | < 10 | NC |
| General Chemistry (mg/L) | - | | |
| Fluoride | <0.050 | <0.50 | NC |
| Chloride | 240 | 250 | 4.1 |
| Nitrite | <0.50 | <0.50 | NC |
| Bromide | 3.8 | 3.9 | 2.6 |
| Nitrate | <0.50 | <0.50 | NC |
| Phosphorus | <2.5 | <2.5 | NC |
| Sulfate | 6.9 | 9.6 | 32.7 |
| Carbon Dioxide (CO ₂) | 970 | 960 | 1.0 |
| Alkalinity (CaCO ₃) | 1084 | 1073 | 1.0 |
| Bicarbonate (CaCO ₃) | 1084 | 1073 | 1.0 |
| \ 3/ | 1084 | 1073 | 1.0 |
| Total Metals (mg/L) | * O 000 | 10,000 | NO |
| Arsenic | < 0.020 | < 0.020 | NC 1.0 |
| Barium | 0.99 | 1 | 1.0 |
| Cadmium | < 0.0020 | < 0.0020 | NC |
| Chromium | < 0.0060 | < 0.0060 | NC |
| Lead | 0.014 | 0.0072 | 64.2 |
| Selenium | < 0.050 | < 0.050 | NC |
| Silver | < 0.0050 | <0.0050 | NC |
| Mercury | < 0.00020 | < 0.00020 | NC |
| Dissolved Metals (mg/L) | | | |
| Arsenic | < 0.020 | <0.020 | NC |
| Barium | 0.97 | 0.97 | 0.0 |
| Cadmium | < 0.0020 | < 0.0020 | NC |
| Calcium | 130 | 140 | 7.4 |
| Chromium | < 0.0060 | < 0.0060 | NC |
| Copper | < 0.0060 | < 0.0060 | NC |
| Iron | 6.5 | 6.5 | 0.0 |
| Lead | 0.0068 | 0.008 | 16.2 |
| Magnesium | 31 | 31 | 0.0 |
| Manganese | 2.2 | 2.2 | 0.0 |
| Manganood | | | |

| | MW-11 | DUPLICATE #1 | |
|-------------------------------------|---------------|-----------------|---------|
| Parameter | 1908D80-006 | 1908D80-007 | RPD % |
| rarameter | 8/21/2019 | 8/21/2019 | T KPD % |
| | Sample Result | Field Duplicate | |
| Dissolved Metals (mg/L) | | | |
| Selenium | <0.050 | <0.050 | NC |
| Silver | < 0.0050 | < 0.0050 | NC |
| Sodium | 490 | 500 | 2.0 |
| Uranium | <0.10 | <0.10 | NC |
| Zinc | < 0.020 | < 0.020 | NC |
| Total Petroleum Hydrocarbons (mg/L) | | | |
| Diesel Range Organics | 0.52 | 0.53 | 1.9 |
| Gasoline Range Organics | 2.4 | 1.8 | 28.6 |
| Motor Oil Range Organics | < 2.5 | < 2.5 | NC |

Notes:

 ${\sf RPD = Relative\ percent\ difference;\ [(difference)/(average)]*\ 100}$

NC = Not calculated; RPD values were not calculated for non-detects or J-flagged data

ug/L = micrograms per liter

mg/L = milligrams per liter

Table B-3
Field Duplicate Summary - 2019 Annual Monitoring Report
Western Refining Southwest, Inc. - Bloomfield Terminal

| | MW-70 | DUPLICATE #2 | |
|-------------------------------------|---------------|-----------------|----------|
| Parameter – | 1908E78-004 | 1908E78-006 | RPD % |
| T didnicter | 8/23/2019 | 8/23/2019 | |
| | Sample Result | Field Duplicate | |
| Volatile Organic Compounds (ug/L) | | | |
| 1,1,1,2-Tetrachloroethane | < 1.0 | < 1.0 | NC |
| 1,1,1-Trichloroethane | < 1.0 | < 1.0 | NC |
| 1,1,2,2-Tetrachloroethane | < 2.0 | < 2.0 | NC |
| 1,1,2-Trichloroethane | < 1.0 | < 1.0 | NC |
| 1,1-Dichloroethane | < 1.0 | < 1.0 | NC |
| 1.1-Dichloroethene | < 1.0 | < 1.0 | NC |
| 1,1-Dichloropropene | < 1.0 | < 1.0 | NC |
| 1,2,3-Trichlorobenzene | < 1.0 | < 1.0 | NC |
| 1,2,3-Trichloropropane | < 2.0 | < 2.0 | NC |
| 1,2,4-Trichlorobenzene | < 1.0 | < 1.0 | NC |
| 1,2,4-Trimethylbenzene | < 1.0 | < 1.0 | NC |
| 1,2-Dibromo-3-chloropropane | < 2.0 | < 2.0 | NC |
| 1,2-Dibromoethane (EDB) | < 1.0 | < 1.0 | NC |
| 1,2-Dishorhoethane (EDB) | < 1.0 | < 1.0 | NC |
| · | | < 1.0 | |
| 1,2-Dichloroethane (EDC) | < 1.0 | | NC NC |
| 1,2-Dichloropropane | < 1.0 | < 1.0 | NC |
| 1,3,5-Trimethylbenzene | < 1.0 | < 1.0 | NC |
| 1,3-Dichlorobenzene | < 1.0 | < 1.0 | NC |
| 1,3-Dichloropropane | < 1.0 | < 1.0 | NC |
| 1,4-Dichlorobenzene | < 1.0 | < 1.0 | NC |
| 1-Methylnaphthalene | < 4.0 | < 4.0 | NC |
| 2,2-Dichloropropane | < 2.0 | < 2.0 | NC |
| 2-Butanone | < 10 | < 10 | NC |
| 2-Chlorotoluene | < 1.0 | < 1.0 | NC |
| 2-Hexanone | < 10 | < 10 | NC |
| 2-Methylnaphthalene | < 4.0 | < 4.0 | NC |
| 4-Chlorotoluene | < 1.0 | < 1.0 | NC |
| 4-Isopropyltoluene | < 1.0 | < 1.0 | NC |
| 4-Methyl-2-pentanone | < 10 | < 10 | NC |
| Acetone | < 10 | < 10 | NC |
| Benzene | < 1.0 | < 1.0 | NC |
| Bromobenzene | < 1.0 | < 1.0 | NC |
| Bromodichloromethane | < 1.0 | < 1.0 | NC |
| Bromoform | < 1.0 | < 1.0 | NC |
| Bromomethane | < 3.0 | < 3.0 | NC |
| Carbon disulfide | < 10 | < 10 | NC |
| Carbon Tetrachloride | < 1.0 | < 1.0 | NC |
| Chlorobenzene | < 1.0 | < 1.0 | NC |
| Chloroethane | < 2.0 | < 2.0 | NC |
| Chloroform | < 1.0 | < 1.0 | NC |
| Chloromethane | < 3.0 | < 3.0 | NC |
| cis-1,2-DCE | < 1.0 | < 1.0 | NC |
| cis-1,3-Dichloropropene | < 1.0 | < 1.0 | NC NC |
| Dibromochloromethane | | | |
| Dibromocnioromethane Dibromomethane | < 1.0 | < 1.0 | NC NC |
| | < 1.0 | < 1.0 | NC NC |
| Dichlorodifluoromethane | < 1.0 | < 1.0 | NC NC |
| Ethylbenzene | < 1.0 | < 1.0 | NC |
| Hexachlorobutadiene | < 1.0 | < 1.0 | NC |
| Isopropylbenzene | < 1.0 | < 1.0 | NC |
| Methyl tert-butyl ether (MTBE) | 0.54 | 0.52 | 3.8 |
| Methylene Chloride | < 3.0 | < 3.0 | NC |
| Naphthalene | < 3.0 | < 3.0 | NC |
| n-Butylbenzene | < 1.0 | < 1.0 | NC |
| n-Propylbenzene | < 2.0 | < 2.0 | NC |

| | MW-70 | DUPLICATE #2 | |
|---|---------------|-----------------|-------------|
| Parameter | 1908E78-004 | 1908E78-006 | RPD % |
| rarameter | 8/23/2019 | 8/23/2019 | KPD 76 |
| | Sample Result | Field Duplicate | |
| Volatile Organic Compounds (ug/L) | | | |
| sec-Butylbenzene | < 1.0 | < 1.0 | NC |
| Styrene | < 1.0 | < 1.0 | NC |
| tert-Butylbenzene | < 1.0 | < 1.0 | NC |
| Tetrachloroethene (PCE) | < 1.0 | < 1.0 | NC |
| Toluene | < 1.0 | < 1.0 | NC |
| trans-1,2-DCE | < 1.0 | < 1.0 | NC |
| trans-1,3-Dichloropropene | < 1.0 | < 1.0 | NC |
| Trichloroethene (TCE) | < 1.0 | < 1.0 | NC |
| Trichlorofluoromethane | < 1.0 | < 1.0 | NC |
| Vinyl chloride | < 1.0 | < 1.0 | NC |
| Xylenes, Total | < 1.5 | < 1.5 | NC |
| General Chemistry (mg/L) Fluoride | 0.26 | 0.27 | 3.8 |
| | | 340 | |
| Chloride Nitrite | 340 0.33 | 0.29 | 0.0 12.9 |
| Bromide | 1.6 | 1.6 | 0.0 |
| Nitrate | 0.33 | 0.29 | 12.9 |
| Phosphorus | < 2.5 | < 10 | NC |
| Sulfate | 2100 | 2100 | 0.0 |
| Carbon Dioxide (CO ₂) | 790 | 770 | 2.6 |
| Alkalinity (CaCO ₃) | 785.4 | 791.1 | 0.7 |
| * (0) | 785.4 | 791.1 | 0.7 |
| Bicarbonate (CaCO ₃) Total Metals (mg/L) | 765.4 | 791.1 | 0.7 |
| Arsenic | <0.020 | < 0.020 | NC |
| Barium | 0.15 | 0.15 | 0.0 |
| Cadmium | < 0.0020 | < 0.0020 | NC |
| Chromium | <0.0020 | 0.0020 | NC NC |
| Lead | < 0.0050 | < 0.0050 | NC |
| Selenium | < 0.050 | < 0.050 | NC |
| Silver | 0.0051 | 0.0049 | 4.0 |
| Mercury | 0.00012 | 0.00014 | 15.4 |
| Dissolved Metals (mg/L) | | | |
| Arsenic | <0.020 | <0.020 | NC |
| Barium | 0.013 | 0.013 | 0.0 |
| Cadmium | < 0.0020 | < 0.0020 | NC |
| Calcium | 610 | 610 | 0.0 |
| Chromium | < 0.0060 | < 0.0060 | NC |
| Copper | 0.0037 | 0.0034 | 8.5 |
| Iron | 5.3 | 5.3 | 0.0 |
| Lead | < 0.0050 | < 0.0050 | NC |
| Magnesium | 150 | 150 | 0.0 |
| Manganese | 1.6 | 1.7 | 6.1 |
| Potassium | 3.5 | 3.4 | 2.9 |
| Selenium | < 0.050 | < 0.050 | NC |
| Silver | 0.0071 | 0.0073 | 2.8 |
| Sodium | 610 | 600 | 1.7 |
| Uranium | < 0.10 | < 0.10 | NC |
| Zinc | 0.017 | 0.023 | 30.0 |
| Total Petroleum Hydrocarbons (mg/L) | .0.40 | | 1 110 |
| Diesel Range Organics | < 0.40 | < 0.40 | NC NC |
| Gasoline Range Organics | <0.050 | <0.050 | NC NC |
| Motor Oil Range Organics | < 2.5 | < 2.5 | NC |

Notes:

RPD = Relative percent difference; [(difference)/(average)]* 100

NC = Not calculated; RPD values were not calculated for non-detects or J-flagged data

ug/L = micrograms per liter

mg/L = milligrams per liter

| | 0W 25+70 | DUPLICATE #3 | |
|--|---------------|-----------------|----------|
| Parameter | 1908G31-002 | 1908G31-003 | RPD % |
| raiametei | 8/26/2019 | 8/26/2019 | INFD 70 |
| | Sample Result | Field Duplicate | |
| Volatile Organic Compounds (ug/L) | | | |
| 1,1,1,2-Tetrachloroethane | | | NC |
| 1,1,1-Trichloroethane | | | NC |
| 1,1,2,2-Tetrachloroethane | | | NC |
| 1,1,2-Trichloroethane | | | NC |
| 1,1-Dichloroethane | | | NC |
| 1,1-Dichloroethene | | | NC |
| 1,1-Dichloropropene | | | NC |
| 1,2,3-Trichlorobenzene | | | NC |
| 1,2,3-Trichloropropane | | | NC |
| 1,2,4-Trichlorobenzene | | | NC |
| 1,2,4-Trimethylbenzene | | | NC |
| 1,2-Dibromo-3-chloropropane | | | NC |
| 1,2-Dibromoethane (EDB) | | | NC |
| 1,2-Dichlorobenzene | | | NC NC |
| 1,2-Dichloroethane (EDC) | | | NC |
| 1,2-Dichloropropane | | | NC |
| 1,3,5-Trimethylbenzene | | | NC |
| 1,3-Dichlorobenzene | | | NC |
| 1,3-Dichloropropane | | | NC |
| 1,4-Dichlorobenzene | | | NC |
| 1-Methylnaphthalene | | | NC |
| 2,2-Dichloropropane | | | NC |
| 2-Butanone | | | NC |
| 2-Chlorotoluene | | | NC NC |
| 2-Hexanone | | | NC NC |
| 2-Methylnaphthalene 4-Chlorotoluene | | | NC |
| 4-Chlorotolidene 4-Isopropyltoluene | | | NC NC |
| 4-Methyl-2-pentanone | | | NC NC |
| Acetone | | | NC NC |
| Benzene | < 1.0 | < 1.0 | NC NC |
| Bromobenzene | | \ 1.0 | NC NC |
| Bromodichloromethane | | | NC NC |
| Bromoform | | | NC NC |
| Bromomethane | | | NC NC |
| Carbon disulfide | | | NC |
| Carbon Tetrachloride | | | NC |
| Chlorobenzene | | | NC |
| Chloroethane | | | NC |
| Chloroform | | | NC |
| Chloromethane | | | NC |
| cis-1,2-DCE | | | NC |
| cis-1,3-Dichloropropene | | | NC |
| Dibromochloromethane | | | NC |
| Dibromomethane | | | NC |
| Dichlorodifluoromethane | | | NC |
| Ethylbenzene | < 1.0 | < 1.0 | NC |
| Hexachlorobutadiene | | | NC |
| Isopropylbenzene | | *** | NC |
| Methyl tert-butyl ether (MTBE) | < 1.0 | < 1.0 | NC |
| Methylene Chloride | | | NC |
| Naphthalene | | | NC |
| n-Butylbenzene | | | NC |
| n-Propylbenzene | | | NC |
| L | | | |

| | OW 25+70 | DUPLICATE #3 | |
|---|---------------|-----------------|------------|
| Parameter | 1908G31-002 | 1908G31-003 | RPD % |
| Parameter | 8/26/2019 | 8/26/2019 | RPD % |
| | Sample Result | Field Duplicate | |
| Volatile Organic Compounds (ug/L) | | | |
| sec-Butylbenzene | | | NC |
| Styrene | | | NC |
| tert-Butylbenzene | | | NC |
| Tetrachloroethene (PCE) | | | NC |
| Toluene | < 1.0 | < 1.0 | NC |
| trans-1,2-DCE | | *** | NC |
| trans-1,3-Dichloropropene | | | NC |
| Trichloroethene (TCE) | | | NC |
| Trichlorofluoromethane | | | NC |
| Vinyl chloride | | | NC 1.0 |
| Xylenes, Total | 0.49 | 0.51 | 4.0 |
| General Chemistry (mg/L) | 1 | | NO. |
| Fluoride | | | NC NC |
| Chloride Nitrite | | | NC NC |
| Bromide | | | NC NC |
| Nitrate | | | NC NC |
| Phosphorus | | | NC |
| Sulfate | | | NC |
| Carbon Dioxide (CO ₂) | | *** | NC |
| Alkalinity (CaCO ₃) | | | NC |
| - I | | | |
| Bicarbonate (CaCO ₃) | | | NC |
| Total Metals (mg/L) Arsenic | | | NC |
| Barium | | | NC |
| Cadmium | | | NC |
| Chromium | | | NC |
| Lead | | | NC |
| Selenium | *** | | NC |
| Silver | | | NC |
| Mercury | | | NC |
| Dissolved Metals (mg/L) | | | |
| Arsenic | | | NC |
| Barium | *** | | NC |
| Cadmium | *** | | NC |
| Calcium | | | NC |
| Chromium | | | NC |
| Copper | | | NC |
| Iron | *** | | NC |
| Lead | *** | | NC |
| Magnesium | | | NC |
| Manganese | | | NC |
| Potassium | *** | | NC |
| Selenium | | | NC |
| Silver | | | NC |
| Sodium | | | NC |
| Uranium | | | NC |
| Zinc | | | NC |
| Total Petroleum Hydrocarbons (mg/L) | - 0 10 T | . O 10 | NO |
| Diesel Range Organics | < 0.40 | < 0.40 | NC 33.6 |
| Gasoline Range Organics Motor Oil Range Organics | 0.052 <2.5 | 0.073 <2.5 | 33.6 NC |
| wotor on Kange Organics | \ 2.3 | <2.5 | INC |

Notes:

RPD = Relative percent difference; [(difference)/(average)]* 100

NC = Not calculated; RPD values were not calculated for non-detects or J-flagged data

ug/L = micrograms per liter

mg/L = milligrams per liter

Table B-4
Technical Completeness Summary - 2019 Annual Monitoring Report
Western Refining Southwest, Inc. - Bloomfield Terminal

| | Parameter | Total Number of Results | Number of Usable Results | Percent Technical Compliance |
|--------------------------|-----------------------------------|-------------------------|--------------------------|------------------------------|
| TPH | Diesel Range Organics (DRO) | 55 | 55 | 100 |
| | Motor Oil Range Organics (MRO) | 53 | 53 | 100 |
| | Gasoline Range Organics (GRO) | 55 | 55 | 100 |
| VOCs | All VOC Analytes | 27 | 27 | 100 |
| VOCs | BTEX & MTBE only | 38 | 38 | 100 |
| SVOC | All SVOC Analytes | 8 | 8 | 100 |
| Total Recoverable Metals | Arsenic | 39 | 39 | 100 |
| | Barium | 39 | 39 | 100 |
| | Cadmium | 39 | 39 | 100 |
| | Chromium | 39 | 39 | 100 |
| | Lead | 39 | 39 | 100 |
| | Mercury | 39 | 39 | 100 |
| | Selenium | 39 | 39 | 100 |
| | Silver | 39 | 39 | 100 |
| Dissolved Metals | Arsenic | 39 | 39 | 100 |
| | Barium | 39 | 39 | 100 |
| | Cadmium | 39 | 39 | 100 |
| | Calcium | 39 | 39 | 100 |
| | Chromium | 39 | 39 | 100 |
| | Copper | 39 | 39 | 100 |
| | Iron | 39 | 39 | 100 |
| | Lead | 39 | 39 | 100 |
| | Magnesium | 39 | 39 | 100 |
| | Manganese | 39 | 39 | 100 |
| | Mercury | 39 | 39 | 100 |
| | Potassium | 39 | 39 | 100 |
| | Selenium | 39 | 39 | 100 |
| | Silver | 39 | 39 | 100 |
| | Sodium | 39 | 39 | 100 |
| | Uranium | 39 | 39 | 100 |
| | Zinc | 39 | 39 | 100 |
| Other Parameters: | Bicarbonate (As CaCO3) | 39 | 39 | 100 |
| | Bromide | 39 | 39 | 100 |
| | Carbonate (As CaCO3) | 39 | 39 | 100 |
| | Chloride | 39 | 39 | 100 |
| | Fluoride | 39 | 39 | 100 |
| | Nitrate+Nitrite as N | 30 | 30 | 100 |
| | Nitrogen, Nitrate (As N) | 8 | 8 | 100 |
| | Nitrogen, Nitrite (As N) | 8 | 8 | 100 |
| | Phosphorus, Orthophosphate (As P) | 39 | 39 | 100 |
| | Sulfate | 39 | 39 | 100 |
| | Total Alkalinity (as CaCO3) | 39 | 39 | 100 |
| | Total Carbon Dioxide | 39 | 39 | 100 |

Notes:

Number of samples used in completeness calculations includes field duplicates, equipment rinsate, and field blanks. Percent Technial Compliance = (Number of usable results / Number of reported results) * 100