

REVISED REMEDiation SUMMARY AND SITE CLOSURE REQUEST

CR-222 Tank Station
June 2022 Crude Oil Release
Latitude 32.772268, Longitude -103.884449
Eddy County, New Mexico
NMOCD Incident No. nAPP2215951311

Prepared For:

Holly Energy Partners – Operating, L.P.
2828 N. Harwood Drive, Suite 1300
Dallas, Texas 75201

Prepared By:

TRC Environmental
505 East Huntland Drive
Suite 250
Austin, Texas 78752

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Jared Stoffel, P.G.
Project Manager



Bryan Gilbert, P.G.
Austin Office ECW Practice Leader





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1.0 INTRODUCTION

TRC Environmental Corporation (TRC) has prepared this *Revised Remediation Summary and Site Closure Request Report* on behalf of Holly Energy Partners – Operating, L.P. (HEP). This document summarizes the environmental investigation performed to date at HEP’s CR-222 Tank Station (the “Site”). The Site is located on County Road (CR) 222 (also known as Shugart Road) approximately 2.91 miles south of State Highway (SH) 82 in Eddy County, New Mexico. The Site is located within Unit B, Section 05, Township 18 South, Range 31 East and the coordinates of the Site are latitude 32.772268, longitude -103.884449. The Site location is depicted on a topographic map in Figure 1.

The *Remediation Summary and Site Closure Request Report* was submitted to NMOCD on September 1, 2022. The September 2022 request for closure was rejected by NMOCD on December 1, 2022. The NMOCD’s December 2022 response included a request to conduct additional site investigation. Additional investigation to address NMOCD’s requests was conducted in March and April 2023.

2.0 BACKGROUND

2.1 Release Discovery, Notification, and Investigation Summary

The Site is an unmanned, fenced facility comprised for four 400-barrel (bbl) aboveground storage tanks containing crude oil within a lined secondary containment area. Aboveground steel pipelines are present throughout the Site, while a stairway for accessing the tanks is present extending to the tanks from the eastern portion of the Site. The Site layout is depicted on Figure 2. A crude oil release caused by a leaking ball valve was identified at the Site on June 3, 2022. The released volume was approximately 9.5 bbls of crude oil. All released crude oil (product) was contained within a polyvinyl chloride (PVC)-lined secondary containment. A 6 to 8-inch thick layer of pea gravel covers the PVC liner. The extent of the affected surface area (pea gravel) within the lined secondary containment is shown on Figure 2.

Upon discovery, the release was immediately stopped, the ball valve repaired, and 9.3 bbls of product were recovered by a vacuum truck. The tanks, located within the lined secondary containment area affected by the release, were emptied and removed from service for the duration of the release investigation and liner repair. Crude oil-stained pea gravel atop the PVC liner was excavated and removed from the containment area and temporarily staged at the Site for disposal, as detailed below. The release was reported on Form C-141 (Release Notification and Corrective Action) to the New Mexico Oil Conservation Division (NMOCD) District 2 Office on June 16, 2022 (HEP, 2022), in accordance with Title 19 Chapter 15 Part 29 of the New Mexico Administrative Code (19.15.29 NMAC). Incident number nAPP2215951311 was assigned. Correspondence with the NMOCD is provided in Appendix A and a copy of Form C-141 is provided in Appendix B.



During excavation and removal of the crude oil-affected pea gravel, five small holes or tears up to one inch in extent were observed in the liner by HEP. The small liner holes were located within or adjacent to the crude oil-affected surface area. HEP requested that TRC conduct a third-party liner inspection and investigate the potential presence of affected soil underlying the small holes. On June 7, 2022, TRC notified NMOCD of the intent to inspect the liner and collect soil samples in accordance with NMAC 19.15.29.12 D(1)(a). On June 23, 2022, TRC inspected the liner, confirmed the presence of five small holes in the liner within or adjacent to the crude oil-affected surface area, and collected soil samples beneath each of the liner holes. The investigation activities were conducted in accordance with the NMOCD rule 19.15.29 NMAC.

TRC collected samples using a hand auger and/or hand trowel from soil beneath the small holes in the liner to a depth of 6 inches below ground surface (bgs). Mechanical refusal due to a hard subsurface layer (i.e., caliche) was encountered at approximately 6 inches bgs at all five locations, which did not allow for deeper soil samples to be collected at any location. Soil samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by United States Environmental Protection Agency (EPA) Method 8021B, total petroleum hydrocarbons (TPH) by EPA Method 8015M, and chloride by EPA Method 300.

Approximately 17 cubic yards of crude oil-stained pea gravel were transported to Gandy Marley Landfarm in Roswell, New Mexico as non-hazardous waste on July 15, 2022. A copy of the waste manifest is included in Appendix C.

Following sampling, the sample locations were backfilled with native soil and the five small holes in the liner were repaired by HEP. The excavated and removed pea gravel within the secondary containment area was replaced with clean pea gravel on August 26, 2022.

2.2 September 2022 Remediation Summary and Site Closure Request Submittal and NMOCD Response

The remedial activities above were documented in the *Remediation Summary and Site Closure Request* submitted to the NMOCD on September 1, 2022. The September 2022 report documented that: (1) excavation and/or additional delineation of the affected soils beneath the liner were impracticable due to the proximity of active and sensitive industrial equipment and infrastructure; and (2) the liner was repaired, inspected, and determined to be in good condition. HEP requested that NMOCD approve deferral of remedial activities until time of abandonment in accordance with 19.15.29.12(C)(2) NMAC and grant Site closure.

The request for closure was rejected by NMOCD on December 1, 2022, with the following rationale and requests:

- “When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided. If evidence of depth to ground



water within a ½ mile radius of the site cannot be provided, impacted soils will need to meet Table 1 Closure Criteria for ground water at a depth of 50 feet or less.”

- “If you feel the depth to groundwater is >50’, a shallow borehole can be drilled to 51’ allowing for verification of the depth. If water is not visible after reaching bottom-hole and waiting 72 hours, the OCD will accept this as evidence. We would just need a copy of the driller’s log.”
- “Surface sample points and sidewalls on the edge of the release need to be delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH for the spill to be horizontally delineated.”

On March 1, 2023, TRC submitted a 90-day request for extension (i.e., until May 30, 2023) to complete the additional investigation and submit a revised *Remediation Summary and Site Closure Request* report. The NMOCD approved the extension request via email on March 1, 2023. The email correspondence is included in Appendix A.

In response to the December 2022 NMOCD denial of the September 2022 request for closure, additional investigation activities were conducted in March and April 2023, including a depth-to-water soil boring (temporary monitoring well) and additional surface soil samples to delineate the lateral extent of BTEX, TPH, and chloride on the edge of the release area. The results of the June 2022, March 2023, and April 2023 investigations are summarized in Sections 4.5.1 and 4.5.2 below. Figure 2 presents the Site layout, liner hole and soil sample locations, and soil sample analytical results. An updated request for deferral of remedial activities until time of abandonment in accordance with 19.15.29.12(C)(2) NMAC and grant Site closure is included in Section 5.0.

3.0 NMOCD CLOSURE CRITERIA

Rule 19.15.29 NMAC provides cleanup standards for crude oil spills. The cleanup standards (described in the rule as “Closure Criteria”) are based primarily on depth to groundwater but are also based on additional criteria. Three different Closure Criteria are provided in the rule. The most stringent apply to sites where groundwater is found within 50 feet of the ground surface or if the release occurred within one of the following areas:

- Within 300 feet of any continuously flowing watercourse or any other significant watercourse.
- Within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary highwater mark).
- Within 300 feet from an occupied permanent residence, school, hospital, institution or church.
- Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes.
- Within 1,000 feet of any fresh water well or spring.



- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 New Mexico Statutes Annotated (NMSA) 1978 as amended.
- Within 300 feet of a wetland.
- Within the area overlying a subsurface mine.
- Within an unstable area such as a karst formation.
- Within a 100-year floodplain.

Available information was reviewed to determine the Closure Criteria for the Site. Closure Criteria evaluation distances are shown on Figure 3. The findings of this evaluation are summarized below.

3.1 Groundwater Evaluation

3.1.1 Site Investigation

At the request of NMOCD, the depth to groundwater beneath the Site was confirmed to be greater than 50 feet bgs based on the installed depth-to-water boring. On March 14, 2023, a temporary monitoring well (TMW-1) was installed to a depth of 53 feet bgs (i.e., at least 50 feet bgs). The temporary monitoring well consisted of PVC casing and screen, with a screen interval from approximately 33 to 53 feet bgs, installed in the open borehole. TMW-1 was left in place for 72-hours as requested by NMOCD and was confirmed to be dry based on gauging using a water level meter. Following confirmation as dry for at least 72 hours, the casing and screen were removed and the borehole was plugged with hydrated bentonite chips. Based on this information, the depth to groundwater was confirmed to be greater than 53 feet bgs at the Site. The location of TMW-1 is shown on Figure 2.

3.1.2 Depth to Groundwater Records Research in Surrounding Area

Based on a review of the New Mexico Office of the State Engineer (NMOSE) Points of Diversion (PODs) information, no water wells have been drilled and completed within 0.5-mile of the Site other than temporary monitoring well TMW-1. Three water wells (RA-11590-POD1, RA-11590-POD3, and RA-11590-POD4) and one pending well (RA-11590-POD2) are located approximately 1.3 to 1.8 miles northwest of the Site, as shown in Figure 4. The three water wells were drilled in January 2010, have total depths ranging from 55 to 158 feet bgs, and were all dry. The wells were plugged as dry holes shortly after drilling in January 2010.

Publicly available information for other PODs in Eddy County in the area surrounding the Site were reviewed (NMOSE, 2022). Depth to groundwater for installed PODs in the area range from 80 to 180 feet bgs. PODs with total depths of 50 to 75 feet bgs in this area are listed as dry. This information is summarized on the table below. Wells with information utilized in depth to groundwater estimation are indicated with bold text. Only PODS CP-01957-POD1 (TMW-1),



RA-11590-POD1, RA-11590-POD2, RA-11590-POD3, and RA-11590-POD4 are shown on Figure 4. Based on this information, groundwater beneath the Site is anticipated between 51 to 100 feet bgs.



Well ID	Approximate Location Relative to Release Site	Owner	Date Drilled	Well Total Depth (feet bgs)	Depth to Water (feet bgs)
RA-11590-POD2	1.3 miles to northwest	New Mexico State Land Office	Not applicable; well not installed.		
RA-11590-POD1	1.4 miles to northwest	New Mexico State Land Office	January 2010	158	Dry well
RA-11590-POD3	1.7 miles to northwest	New Mexico State Land Office	January 2010	60	Dry well
RA-11590-POD4	1.8 miles to northwest	New Mexico State Land Office	January 2010	55	Dry well
RA-11950-POD2	2.2 miles north-northeast	Central Valley Electric Co-Op	Not applicable; well not installed.		
CP-00818-POD1	5.3 miles southwest	Snyder Ranches	Prior to 1950	240	Unknown
CP-00849	5.6 miles southeast	Snyder Ranches (well abandoned since mid-1980s)	1953	300	Unknown
CP-01076 POD 1 and POD 2	5.6 miles southeast	Americo Energy	Not applicable; wells not installed. (Permitted as oil and gas exploration wells)		
CP-00767-POD1	5.7 miles southwest	Rustler Energy	Not applicable; well not installed. (Permitted as oil and gas water flood well)		
CP-01558-POD1	6.2 miles southwest	Richardson Cattle Company	Not applicable; well not installed.		
RA-13106-POD2	6.3 miles northwest	EOG Resources	Not applicable; well not installed.		
RA-13106-POD2	6.5 miles northwest	EOG Resources	January 2022	75	Dry well
RA-13106-POD3	6.5 miles northwest	EOG Resources	January 2022	50	Dry well
L-14207-POD1	6.5 miles north-northeast	Chevron Midcontinent LP	October 2016	240	100
L-14207-POD2	6.5 miles north-northeast	Chevron Midcontinent LP	October 2016	230	101
L-14207-POD3	6.5 miles north-northeast	Chevron Midcontinent LP	October 2016	240	96



Well ID	Approximate Location Relative to Release Site	Owner	Date Drilled	Well Total Depth (feet bgs)	Depth to Water (feet bgs)
L-14207-POD4 to POD 8	6.5 miles north-northeast	Chevron Midcontinent LP	Not applicable; wells not installed.		
RA-11914-POD1	7 miles northwest	Linn Energy	March 2013	85	80
RA-11826 POD 1 to 3	7 miles northwest	COG Operating	Not applicable; wells not installed.		
RA-11931-POD1	7 miles northwest	COG Operating	Not applicable; well not installed.		
RA-11764-POD1	7 miles northwest	Gregory Rockhouse Ranch, Inc.	Not applicable; well not installed.		
CP-1907-POD1	7.7 miles south	Devon Energy	Not applicable; well not installed. (Permitted as oil and gas exploration well)		
CP-00829-POD1	7.8 miles south	Snyder Ranches (well not used since 1965)	Prior to 1950	120	Unknown
CP-00873	8 miles to south-southwest	Yates Petroleum	January 1998	340	180
CP-01957-POD1 (TRC ID TMW-1)	Northwest Corner of Site	HEP	March 14, 2023	53	>53



3.2 Surface Features and Other Development

A review of recent aerial photographs, topographic maps, the NMOSE POD GIS website, and information available from the Eddy County, New Mexico Central Appraisal District website was conducted to determine if any of the other conditions listed above apply to the Site. As shown on Figure 3, the Site is **not** located:

- In an area where groundwater is measured or observed above 51 feet bgs.
- Within 300 feet of any continuously flowing watercourse or any other significant watercourse.
 - No watercourses (rivers, streams, arroyos, etc.) are apparent within 300 feet of the Site in the aerial photography (Figure 3) (USFWS, 2022) or on the topographic map (Figure 1).
- Within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary highwater mark).
 - There is not a lakebed, sinkhole, or playa lake located within 200 feet of the Site (USFWS, 2022).
- Within 300 feet from an occupied permanent residence, school, hospital, institution, or church.
 - The aerial photography and information available from the Eddy County, New Mexico Central Appraisal District do not show or list any permanent residence, school, hospital, institution, or church within 300 feet of the Site (Eddy County Central Appraisal District, 2022).
- Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes.
 - No wells (Figure 4) or springs located within 500 feet of the Site appear in any of the NMOSE records reviewed (NMOSE, 2022).
- Within 1,000 feet of any fresh water well or spring.
 - No fresh water wells or springs located within 1,000 feet of the Site appear in any of the records reviewed (NMOSE, 2022).
- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended.
 - Based on the property and other records review, the Site is not located in incorporated municipal boundaries or within a defined municipal fresh water well field.
- Within the area overlying a subsurface mine.
 - The Site does not overlie a subsurface mine.



3.3 Wetlands, Floodplain, and Karst Geology

A review of the United States Fish and Wildlife Service (USFWS) wetlands map indicates that the Site is not located within 300 feet of a wetland (USFWS, 2022). The New Mexico Bureau of Land Management (BLM) karst potential map indicates the Site is located within the “low karst potential” area (BLM, 2022). Finally, review of the Federal Emergency Management Act (FEMA) floodplain map indicates the Site is not located in the 100-year floodplain (FEMA, 2022). Figures 5, 6, and 7 depict the Site and USFWS wetlands, karst potential, and FEMA floodplain information, respectively.

3.4 Closure Criteria Applicable to the Site

Based on this information, the Closure Criteria applicable to the Site will be based on the depth to groundwater, which is confirmed to be greater than 53 feet bgs in the depth-to-water boring at the Site (TMW-1) and anticipated to be between 51 to 100 feet bgs based on nearby wells in Eddy County with available water level data. A summary of the Closure Criteria is provided in the following table.

Constituent of Concern		Closure Criteria Based on Depth to Groundwater (mg/kg)		
		≤ 50 feet bgs	51 to 100 feet bgs	> 100 feet bgs
Chloride (EPA 300)		600	10,000	20,000
TPH (EPA 8015M)	GRO + DRO + MRO	100	2,500	2,500
	GRO + DRO	NA	1,000	1,000
Total BTEX (EPA 8021)		50	50	50
Benzene (EPA 8021)		10	10	10

Notes: mg/kg = milligrams per kilogram
 bgs = below ground surface
 BTEX = benzene, toluene, ethylbenzene, and total xylenes
 DRO = diesel range organics
 EPA = Environmental Protection Agency
 GRO = gasoline range organics
 MRO = motor oil range organics
 NA = not applicable
 TPH = total petroleum hydrocarbons
 Green shading = Closure Criteria Applicable to the Site



4.0 SITE ASSESSMENT/CHARACTERIZATION RESULTS

19.15.29.11 NMAC requires that a Site Characterization Report have the components described in Sections 4.1 through 4.5 of this document.

4.1 Site Map

As required by 19.15.29.11 NMAC, a scaled diagram showing significant Site infrastructure, sample locations, and known features such as utilities is provided as Figure 2.

4.2 Depth to Groundwater

The exact depth to groundwater beneath the Site is unknown. As discussed in Section 3.1, depth to groundwater at the Site is confirmed to be greater than 53 feet bgs based on temporary monitoring well TMW-1 located at the Site and is anticipated to be between 51 to 100 feet bgs based on nearby wells in Eddy County with available water level data. According to the Geologic Map of New Mexico, soils immediately beneath the Site are mapped as quaternary-aged Eolian and piedmont deposits ("Qep"), which consist of interlayered eolian sands and piedmont-slope deposits. These eolian deposits appear to be underlain by the Rustler Formation. The Rustler Formation ranges in thickness from about 200 feet in northern Eddy County to about 500 feet southeast of Carlsbad. It consists of anhydrite, gypsum, interbedded red and green sandy clay, and some beds of dolomite. The Rustler Formation can yield water to stock wells and some domestic wells, but generally is not desirable for domestic use because of its high chloride and sulfate content (USGS, 1952). This description is consistent with the overall absence of NMOSE-recorded water supply wells in the Site vicinity.

The Rustler Formation overlies the Salado Formation, which consists of halite, small amounts of other potassium salts, and red sandy shale. Groundwater found in the Salado Formation is reportedly a brine and is only used for industrial purposes in Eddy County.

4.3 Wellhead Protection Area

The 0.5-mile wellhead protection area is shown on Figure 4. There are no known water sources, including wells, springs, or other sources of fresh water extraction, within 0.5-mile of the Site.

4.4 Distance to Nearest Significant Watercourse

The horizontal distance to the nearest significant watercourse as defined in Subsection P of 19.15.17.7 NMAC is greater than 0.5-mile from the Site. As depicted on Figure 5, a seasonally-flowing ravine is located approximately 3,300 feet northwest of the Site.

4.5 Site Characteristics

This section describes the June 2022, March 2023, and April 2023 site investigations. The soil sample analytical results from these investigations are presented in Table 1. As shown, the results



were compared with the NMOCD Closure Criteria for sites with groundwater from 51 to 100 feet bgs. At the request of NMOCD, the results from the lateral delineation soil borings completed in March and April 2023 (AH-01/01A through AH-05) were also compared with the “reclamation standards” for total TPH (100 milligrams per kilogram [mg/kg]) and chloride (600 mg/kg) to demonstrate lateral delineation of these chemicals of concern (COCs) in the upper 4 feet of soil.

The reclamation standards are consistent with Closure Criteria for sites with groundwater from 0 to 50 feet bgs. The applicable Closure Criteria for benzene and total BTEX (10 mg/kg and 50 mg/kg, respectively) are consistent with the reclamation standards. The reclamation standards are referenced only with respect to lateral delineation of COCs in the upper 4 feet of soil and are not used in lieu of the Closure Criteria.

4.5.1 Summary of Soil Investigations

June 2022 Investigation

On June 23, 2022, five soil borings (S-1 to S-5) were completed at the Site to a total depth of 6 inches bgs. The borings were located beneath five small holes observed in the liner at the northeastern portion of the secondary containment area within or adjacent to the surface extent of the June 2022 release. Each liner hole was expanded with scissors to allow access for the auger or hand trowel. Photographs taken during the investigation are provided in Appendix D. The soil borings were advanced in close proximity to above-ground utilities and structures. The location of the June 2022 soil borings are presented on Figure 2 and are described below:

- S-1 @ 0-6”: Soil boring S-1 was installed east of the tanks, approximately 3 feet northeast of the aboveground steel piping to the southwest, 5 feet southeast of the aboveground steel piping to the north, 6 feet east of the easternmost tank, and 1 foot south of the stairway used for tank access.
- S-2 @ 0-6”: Soil boring S-2 was installed east of the tanks, 6 feet southeast of the aboveground steel piping to the north, 9 feet east of the easternmost tank, and directly below the stairway used for tank access.
- S-3 @ 0-6”: Soil boring S-3 was installed north of the tanks, 3 feet west and 4 feet north of the aboveground steel piping.
- S-4 @ 0-6”: Soil boring S-4 was installed north of the tanks, 1.5 feet north of the aboveground steel piping.
- S-5 @ 0-6”: Soil boring S-5 was installed north of the tanks, 3 feet north of the aboveground steel piping.

Composite soil samples were collected from just beneath the PVC liner to a depth of 6 inches bgs (refusal) using a hand auger or trowel. A duplicate sample was collected at soil boring S-3. Soil samples were immediately placed on ice and were hand delivered to Eurofins Laboratory in Midland, Texas for laboratory analysis for BTEX by EPA Method 8021B, TPH by EPA Method 8015,



and chloride by EPA Method 300. Non-dedicated sampling equipment was decontaminated prior to its initial use and before each sample was collected.

The lithology at each soil boring location (i.e., beneath the PVC liner) consisted of topsoil overlying very firm consolidated fine to medium grain sand. Caliche was encountered at approximately 6 inches bgs at each soil boring location. Silty clay was observed in soil boring S-4.

Following the June 2022 soil investigation, the soil borings were backfilled with the remaining native soil following sample collection, the liner holes were repaired and the lined area was backfilled with clean gravel by HEP. Photographs of the expanded liner holes (i.e., during and following the June 2022 investigation) and repaired liner are provided in Appendix D.

As discussed above, approximately 17 cubic yards of crude oil-stained pea gravel were transported to Gandy Marley Landfarm in Roswell, New Mexico as non-hazardous waste on July 15, 2022. A copy of the waste manifest is included in Appendix C.

March 2023 Investigation

In response to the December 2022 NMOCD denial of the September 2022 closure request, additional investigation activities were conducted in March and April 2023, including the advancement of a depth-to-water soil boring (temporary monitoring well) and collection of additional surface soil samples to delineate the lateral extent of BTEX, TPH, and chloride on the edge of the release area. As discussed above, the NMOCD's December 2022 denial of the September 2022 closure request included a request for lateral delineation of total TPH and chloride to their reclamation standards of 100 mg/kg and 600 mg/kg, respectively.

On March 14, 2023, a temporary monitoring well (TMW-1) was installed to a depth of 53 feet bgs (i.e., at least 50 feet bgs). The temporary monitoring well consisted of PVC casing and screen, with a screen interval from approximately 33 to 53 feet bgs, installed in the open borehole. TMW-1 was left in place for 72 hours as requested by NMOCD and was confirmed to be dry based on gauging using a water level meter. Following confirmation as dry for at least 72 hours, the casing and screen were removed and the borehole was plugged with hydrated bentonite chips on March 17, 2023. Based on this information, the depth to groundwater was confirmed to be at a depth greater than 53 feet bgs at the Site.

On March 17, 2023, additional surface soil borings (AH-01 through AH-04) were advanced to confirm lateral delineation on the edge of the release area, with soil samples collected outside the bermed containment immediately outside the fenced area to the north, west, and south, and inside the fenced area to the east. Photographs taken during the March 2023 investigation are provided in Appendix D. The soil borings were advanced using a hand auger. The locations of the March 2023 soil borings are presented on Figure 2 and are described below:

- AH-01 @ 0-6": Soil boring AH-01 was installed immediately north of the facility fence line.
- AH-02 @ 0-6": Soil boring AH-02 was installed immediately west of the facility fence line.



- AH-03 @ 0-6": Soil boring AH-03 was installed immediately south of facility fence line.
- AH-04 @ 0-6": Soil boring AH-04 was installed east of the tank berm within the facility fence line and between two pieces of equipment.

All of the soil boring locations are within the extent of the active production pad. A duplicate sample was collected at soil boring AH-02. Soil samples were immediately placed on ice and were hand delivered to Eurofins Laboratory in Midland, Texas for laboratory analysis for BTEX by EPA Method 8021B, TPH by EPA Method 8015, and chloride by EPA Method 300. Non-dedicated sampling equipment was decontaminated prior to its initial use and before each sample was collected.

The lithology observed at soil borings AH-01 through AH-04 consisted of sand and gravel. The lithology observed at TMW-1 consisted of sand and gravel to a depth of 1 foot bgs, dry fine sand to a depth of 40 feet bgs, and dry sandstone to a depth of 53 feet bgs, the total depth of the boring/temporary monitoring well. No elevated organic vapor readings were recorded using a photo-ionization detector (i.e., all readings were below 1 part per million). The boring log for TMW-1 is included in Appendix F.

Investigation derived waste (IDW) was stored in appropriately labeled 55-gallon drums and staged within the facility pending off-Site disposal.

April 2023 Investigation

In response to a reclamation standard exceedance for chloride at soil boring AH-01 (sample AH-01 @ 0-6"), four additional soil samples were collected from soil borings AH-01A and AH-05 for vertical and lateral delineation of chloride at soil boring AH-01 on April 26, 2023. The soil borings were advanced using a hand auger. The locations of the April 2023 soil borings are presented on Figure 2 and are described below:

- AH-01A @ 1', AH-01A @ 1.5', AH-01A @ 2': Soil boring AH-01A was co-located with March 2023 soil boring AH-01, which was installed immediately north of the facility fence line.
- AH-05 @ 0-6": Soil boring AH-05 was installed 3 feet north of co-located soil borings AH-01 and AH-01A.

These soil boring locations are within the extent of the active production pad. A duplicate sample was collected at soil boring AH-05. Soil samples were immediately placed on ice and were hand delivered to Eurofins Laboratory in Midland, Texas for laboratory analysis for chloride by EPA Method 300. Non-dedicated sampling equipment was decontaminated prior to its initial use and before each sample was collected.

4.5.2 Soil Sample Analytical Results and Delineation Status

Soil sample analytical results and Closure Criteria are presented in Table 1. Photographs showing



proximity to steel pipelines and Site infrastructure are presented in Appendix D. The laboratory analytical reports are attached as Appendix E.

June 2022 Investigation Results

The June 23, 2022, soil sample laboratory analytical results were compared to the NMOCD Closure Criteria for sites with groundwater from 51 to 100 feet bgs. The following summarizes the June 2022 soil sample analytical results relative to the applicable NMOCD Closure Criteria:

- Benzene was not detected above the Closure Criterion of 10 mg/kg in any soil sample.
- Total BTEX was detected above the Closure Criterion of 50 mg/kg in the soil sample collected from soil boring S-5 (S-5 @ 0-6").
- The sum of TPH gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO) (i.e., total TPH) was detected above the Closure Criterion of 2,500 mg/kg in the soil sample collected from soil boring S-2 (S-2 @ 0-6").
- The sum of TPH GRO and DRO (i.e., TPH GRO+DRO) was detected above the Closure Criterion of 1,000 mg/kg in the soil samples collected from soil borings S-2 (S-2 @ 0-6") and S-5 (S-5 @ 0-6").
- Chloride was not detected above the Closure Criterion of 10,000 mg/kg in any soil sample.

As summarized above, chloride and benzene do not exceed the Closure Criteria in soil within the bermed containment area, while concentrations of total BTEX, total TPH, and/or TPH GRO+DRO exceeded NMOCD Closure Criteria at soil borings S-2 and S-5.

March 2023 Investigation Results

March 17, 2023, soil sample laboratory analytical results were compared to the NMOCD Closure Criteria for sites with groundwater from 51 to 100 feet bgs and the reclamation standards for total TPH and chloride. The following summarizes the March 2023 soil sample analytical results relative to the applicable NMOCD Closure Criteria and reclamation standards:

- Benzene, total BTEX, total TPH, and TPH GRO+DRO were not detected above laboratory reporting limits in any sample, and all laboratory reporting limits were below the Closure Criteria and reclamation standards.
- Chloride was not detected above the Closure Criterion of 10,000 mg/kg in any soil sample. However, chloride was detected at a concentration of 1,740 mg/kg in the soil sample collected from soil boring AH-01 (AH-01 @ 0-6"), above the reclamation standard of 600 mg/kg.

It should be noted that the June 2022 soil sample analytical results, which were collected from the bermed containment area immediately beneath the liner, did not indicate the presence of chloride concentrations above the reclamation standard of 600 mg/kg, including samples with



total BTEX, TPH GRO+DRO, and total TPH concentrations above Closure Criteria. The highest chloride concentration detected in the June 2022 soil samples was 266 mg/kg (S-1 @ 0-6"). This suggests that elevated chloride concentrations above the reclamation standard are not likely to be associated with the June 2022 release. Further, the June 2022 release was limited to the lined, bermed containment area; soil boring AH-01 was located immediately north (i.e., outside of) the bermed area (the June 2022 release was limited to within the bermed containment area). Regardless, additional soil borings were completed in April 2023 to vertically and laterally delineate the chloride reclamation standard exceedance at soil boring AH-01.

April 2023 Investigation Results

April 26, 2023, soil sample laboratory analytical results were compared to the NMOCD Closure Criterion for sites with groundwater from 51 to 100 feet bgs and the reclamation standard for chloride. Chloride was not detected above the Closure Criterion or reclamation standard in any April 2023 sample.

Delineation Status

As summarized above, chloride and benzene do not exceed the Closure Criteria in soil beneath the Site, while concentrations of total BTEX, total TPH, and/or TPH GRO+DRO exceeded Closure Criteria at soil borings S-2 and S-5 (i.e., beneath the liner). Concentrations of total BTEX, TPH GRO+DRO, and/or total TPH at soil borings S-2 and S-5 are laterally delineated to below the Closure Criteria and reclamation standards to the north, west, south, and east, as all concentrations at soil borings AH-01, AH-02, AH-03, and AH-04 were below Closure Criteria. Concentrations of total BTEX, total TPH, and/or TPH GRO+DRO in soil borings S-2 or S-5 are not delineated vertically since refusal was encountered with the hand auger and trowel at 6 inches bgs. As soil borings S-2 and S-5 are located immediately adjacent to aboveground steel piping, and soil boring S-2 is beneath the stairway utilized for tank access, these locations are not accessible by a drill rig, excavator, or other heavy machinery.

While not detected at concentrations above the Closure Criterion of 10,000 mg/kg, chloride was detected above the reclamation standard of 600 mg/kg at soil boring AH-01 (AH-01 @ 0-6"). The chloride concentration at AH-01 was vertically delineated by three underlying samples collected from co-located soil boring AH-01A (i.e., samples AH-01A @ 1', AH-01A @ 1.5', and AH-01A @ 2.0') and is laterally delineated to the north, west, south, and east, as all chloride concentrations at soil borings AH-05, AH-02, AH-03, and AH-04 were below the Closure Criterion and reclamation standard.

4.5.3 Laboratory Analytical Data Quality Assurance/Quality Control Results

Data reported in work orders J16262-1, J26166-1, and J27669-1 generated by Eurofins Laboratory in Midland, Texas, were reviewed to ensure that reported analytical results meet data quality objectives. It was determined by quality control data associated with analytical results that reported concentrations of target analytes were defensible and that measurement data



reliability is within the expected limits of sampling and analytical error. The analytical results are usable for characterization and delineation at the Site.

5.0 SITE CLOSURE AND DEFERRAL REQUEST

As discussed in Section 4.5, affected soils are present beneath two of the five small holes observed in the liner within the bermed containment area. The affected soils were investigated and delineated to the extent practicable in accordance with NMOCDC guidelines, including along the edge of the release area and outside of the bermed containment area. Excavation and/or additional delineation of the affected soils beneath the liner are impracticable due to the proximity of active and sensitive industrial equipment and infrastructure. The liner has been repaired, inspected, and determined to be in good condition.

HEP respectfully requests that NMOCDC approve deferral of remedial activities until time of abandonment in accordance with 19.15.29.12(C)(2) NMAC and grant closure of the CR-222 Tank Station Crude Oil Release (nAPP2215951311) based on the following:

- Of the 9.5 bbls of crude oil released at the Site, 9.3 bbls (i.e., all but approximately 8 gallons) were recovered with a vacuum truck. Additionally, 17 cubic yards of crude oil-stained pea gravel were excavated and removed from the Site.
- A PVC liner is present across the entire bermed portion of the Site, and the release was confined to within the bermed and lined area.
- Soil with COC concentrations above Closure Criteria was present beneath two of five holes in the liner; vertical delineation of COCs was not achieved to below Closure Criteria beneath these two holes (soil borings S-2 and S-5). The vertical extent of affected soil beneath these two holes is likely very limited due to the small size of the holes (less than 1 inch) and the small volume of unrecovered crude oil associated with the release (approximately 8 gallons unrecovered).
- The affected soil beneath the lined and bermed area is located under and/or immediately adjacent to active aboveground crude oil storage tanks, industrial equipment, and aboveground pipelines. Excavation and/or additional delineation of the affected soils beneath the liner are impracticable due to the proximity of active and sensitive industrial equipment and infrastructure. Further, refusal was encountered in a hard caliche layer beneath the PVC liner at 6 inches bgs during the June 2022 investigation activities.
- Lateral delineation of COCs was achieved within the extent of the active production pad to below the Closure Criteria and reclamation standards.
- There is not an imminent risk to human health, the environment, or groundwater posed by remaining affected soil with COC concentrations above Closure Criteria within the lined and bermed area.
- The PVC liner has been repaired and will inhibit future stormwater infiltration through the affected soil and the potential for vertical migration of any remaining COCs.



- The depth to groundwater was confirmed to be greater than 53 feet bgs.

The specific soil sample locations at the Site requested for the deferral include soil borings S-2 and S-5. The soil sample locations are shown on Figure 2. These soil borings are located within the extent of the active production pad. HEP will perform final remediation and reclamation of the remaining affected soils at the Site in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the facility is no longer used for industrial activities.



TABLES

TABLE 1: SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
 JUNE 2022 CRUDE OIL RELEASE, CR-222 TANK STATION, EDDY COUNTY, NM
 HOLLY ENERGY PARTERS— OPERATING, L.P.

Sample Name	Sample Collection Date	Sample Depth (feet bgs)	BTEX (mg/kg)					TPH (mg/kg)				Chloride (mg/kg)
			Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX ⁽²⁾	GRO	DRO	MRO	Total TPH ⁽³⁾	
NMOCDC Closure Criteria ⁽¹⁾ (Groundwater 51 to 100 feet bgs)			10	NA	NA	NA	50 ⁽²⁾	1,000 ⁽⁴⁾		NA	2,500 ⁽³⁾	10,000
S-1 @ 0-6"	6/23/2022	0-0.5	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.8	<49.8	<49.8	<49.8	266
S-2 @ 0-6"	6/23/2022	0-0.5	<0.0400	0.896	4.63	4.29	9.82	409	2,710	<49.9	3,120	64.8
S-3 @ 0-6"	6/23/2022	0-0.5	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<50.0	<50.0	<50.0	<50.0	9.18
Duplicate-01 (S-3 @ 0-6")	6/23/2022	0-0.5	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	<49.9	<49.9	<49.9	<49.9	<4.99
S-4 @ 0-6"	6/23/2022	0-0.5	0.456	5.61	10.5	9.76	26.3	141	568	115	824	55.1
S-5 @ 0-6"	6/23/2022	0-0.5	1.48	12.7	25.0	16.1	55.2	255	1,020	239	1,510	205
AH-01 @ 0-6"	3/17/2023	0-0.5	<0.00100	<0.00502	<0.00100	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	1,740
AH-02 @ 0-6"	3/17/2023	0-0.5	<0.000998	<0.00499	<0.000998	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	38.2
Duplicate-01 (AH-02 @ 0-6")	3/17/2023	0-0.5	<0.00101	<0.00505	<0.00101	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	55.3
AH-03 @ 0-6"	3/17/2023	0-0.5	<0.000992	<0.00496	<0.000992	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	56.0
AH-04 @ 0-6"	3/17/2023	0-0.5	<0.000996	<0.00498	<0.000996	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	54.1
AH-01A @ 1'	4/26/2023	1.0	---	---	---	---	---	---	---	---	---	95.9
AH-01A @ 1.5'	4/26/2023	1.5	---	---	---	---	---	---	---	---	---	97.6
AH-01A @ 2.0'	4/26/2023	2.0	---	---	---	---	---	---	---	---	---	80.5
AH-05 @ 0-6"	4/26/2023	0-0.5	---	---	---	---	---	---	---	---	---	181
Dup-1 (AH-05 @ 0-6")	4/26/2023	0-0.5	---	---	---	---	---	---	---	---	---	88.3

Notes:

- 1 NMOCDC Closure Criteria = New Mexico Oil Conservation District Closure Criteria for Sites with groundwater between 51 to 100 feet bgs.
- 2 Total BTEX is the sum of the benzene + toluene + ethylbenzene + total xylenes concentrations. Total BTEX concentrations are compared to the Closure Criteria listed.
- 3 Total TPH is the sum of the GRO + DRO + MRO concentrations. Total TPH concentrations are compared to the Closure Criteria listed.
- 4 The sum of GRO + DRO concentrations are compared to the Closure Criteria listed.

bgs below ground surface.

BTEX Benzene, toluene, ethylbenzene, total xylenes.

DRO Diesel range organics.

GRO Gasoline range organics.

MRO Motor oil range organics.

mg/kg milligrams per kilogram.

NA NMOCDC Closure Criteria not available.

NMOCDC New Mexico Oil Conservation Division.

TPH Total Petroleum Hydrocarbons.

" inches.

' feet.

-- Sample not analyzed for parameter shown.

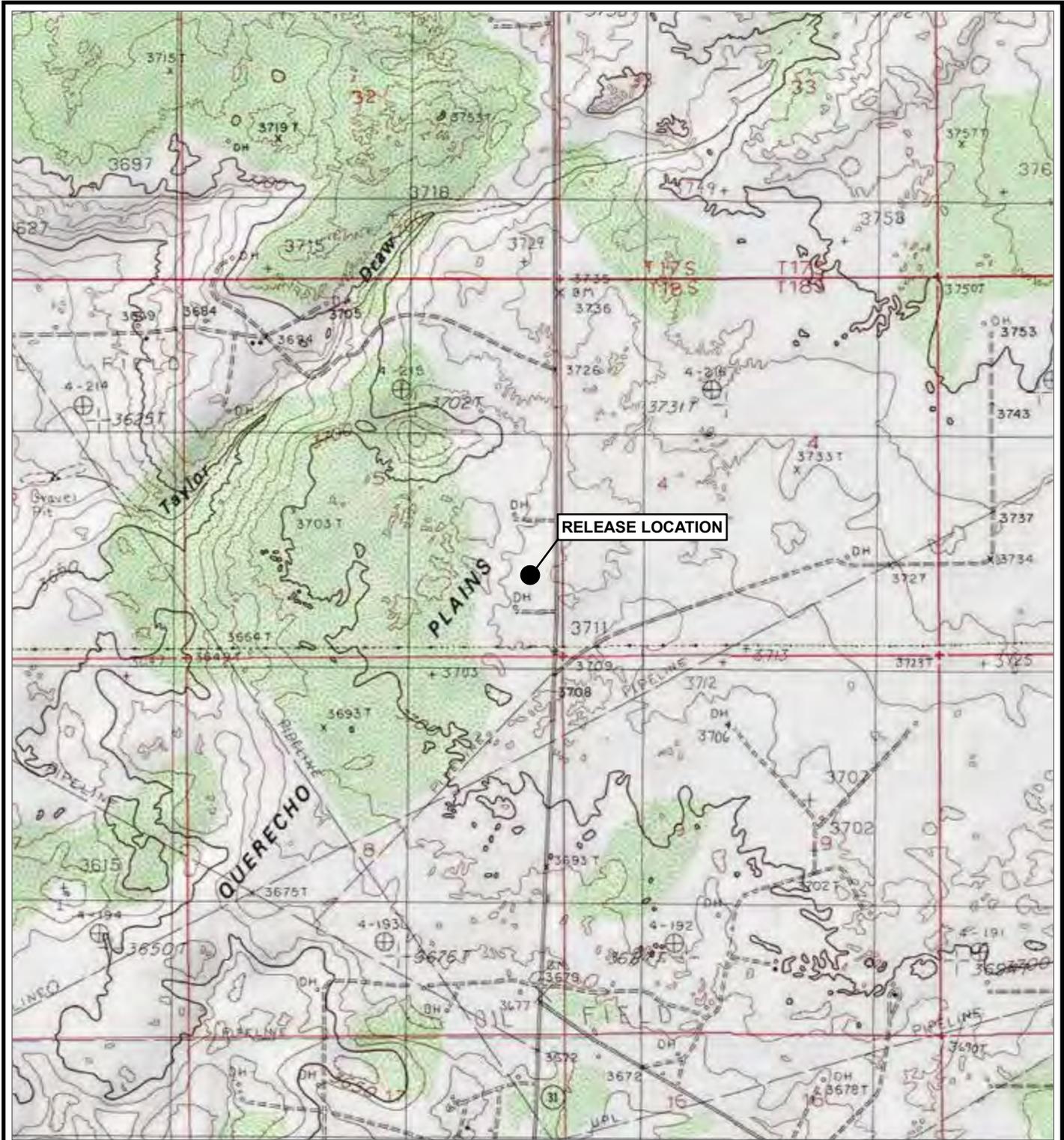
< Parameter not detected above laboratory reporting limit.

Bold Concentration detected above the method detection limit.

Yellow Concentration above NMOCDC Closure Criteria for sites with groundwater between 51 to 100 feet bgs.



FIGURES



LEGEND

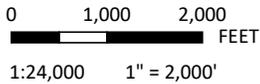
● RELEASE LOCATION

PROJECT: HOLLY ENERGY PARTNERS - OPERATING, L.P.
CR-222 TANK STATION, EDDY COUNTY, NM
JUNE 2022 CRUDE OIL RELEASE

TITLE: **SITE LOCATION MAP**

DRAWN BY: M. JAGOE	PROJ. NO.: 524161
CHECKED BY: R. NIEHAY	FIGURE 1
APPROVED BY: J. STOFEL	
DATE: MAY 2023	

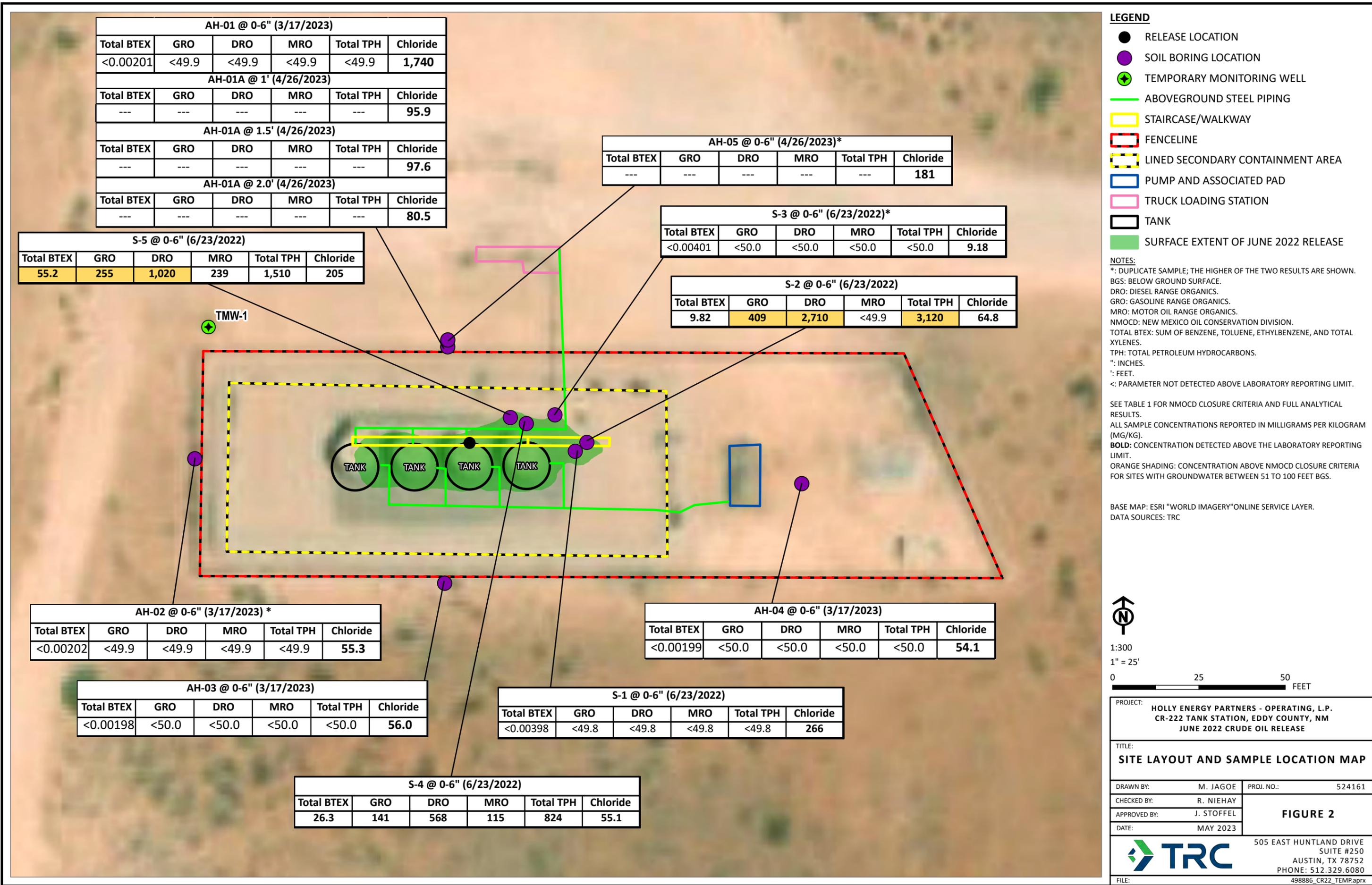
BASE MAP: USGS 7.5-MINUTE SERIES TOPOGRAPHIC MAP
DATA SOURCES: TRC



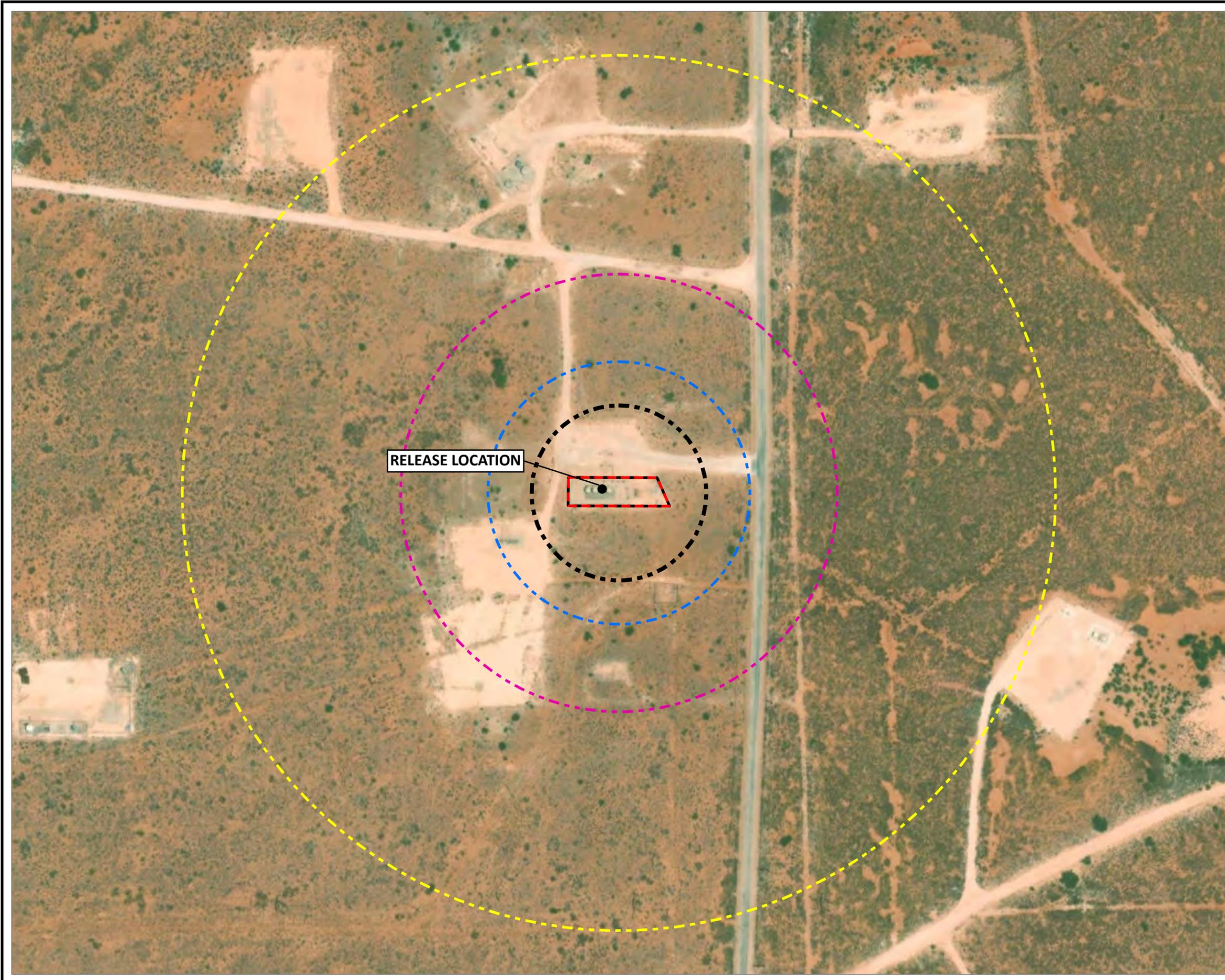
505 EAST HUNTLAND DRIVE
SUITE #250
AUSTIN, TX 78752
PHONE: 512.329.6080

FILE: 498886_CR22_TEMP

COORDINATE SYSTEM: NAD 1983 2011 STATEPLANE NEW MEXICO EAST FIPS 3001 FT US; MAP ROTATION: 0
 -- SAVED BY: MJAGOE ON 5/8/2023, 17:15:25 PM; FILE PATH: T:\1-PROJECTS\HOLLY ENERGY PARTNERS\498886_CR-222\2-APRX\498886_CR22_TEMP\APRX; LAYOUT NAME: FIGURE 1



Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 FUS - Map Rotation: 0
 Source: MARGO on 5/22/2023 13:38:33 PM; File Path: T:\PROJECTS\HOLLY ENERGY\241117\HOLLY ENERGY - CR222 TEMP.prx; Layout Name: Figure 2



LEGEND

- RELEASE LOCATION
- ▭ SITE BOUNDARY
- ⊖ 200' RADIUS (SEE CLOSURE CRITERIA MODIFIER 1)
- ⊖ 300' RADIUS (SEE CLOSURE CRITERIA MODIFIER 2)
- ⊖ 500' RADIUS (SEE CLOSURE CRITERIA MODIFIER 3)
- ⊖ 1000' RADIUS (SEE CLOSURE CRITERIA MODIFIER 4)

CLOSURE CRITERIA MODIFIERS:

1. WITHIN 200 FEET OF ANY LAKEBED, SINKHOLE OR PLAYA LAKE (MEASURED FROM THE ORDINARY HIGH-WATER MARK).
2. WITHIN 300 FEET OF ANY CONTINUOUSLY FLOWING WATERCOURSE OR ANY OTHER SIGNIFICANT WATERCOURSE; OR FROM AN OCCUPIED PERMANENT RESIDENCE, SCHOOL, HOSPITAL, OR CHURCH.
3. WITHIN 500 FEET OF A SPRING OR A PRIVATE, DOMESTIC FRESH WATER WELL USED BY LESS THAN FIVE HOUSEHOLDS FOR DOMESTIC OR STOCK WATERING PURPOSES.
4. WITHIN 1,000 FEET OF ANY FRESH WATER WELL OR SPRING.

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER.
DATA SOURCES: TRC



1:2,640
1" = 220'



PROJECT: **HOLLY ENERGY PARTNERS - OPERATING, L.P.
CR-222 TANK STATION, EDDY COUNTY, NM
JUNE 2022 CRUDE OIL RELEASE**

TITLE: **CLOSURE CRITERIA MODIFIERS**

DRAWN BY: M. JAGOE PROJ. NO.: 524161

CHECKED BY: R. NIEHAY

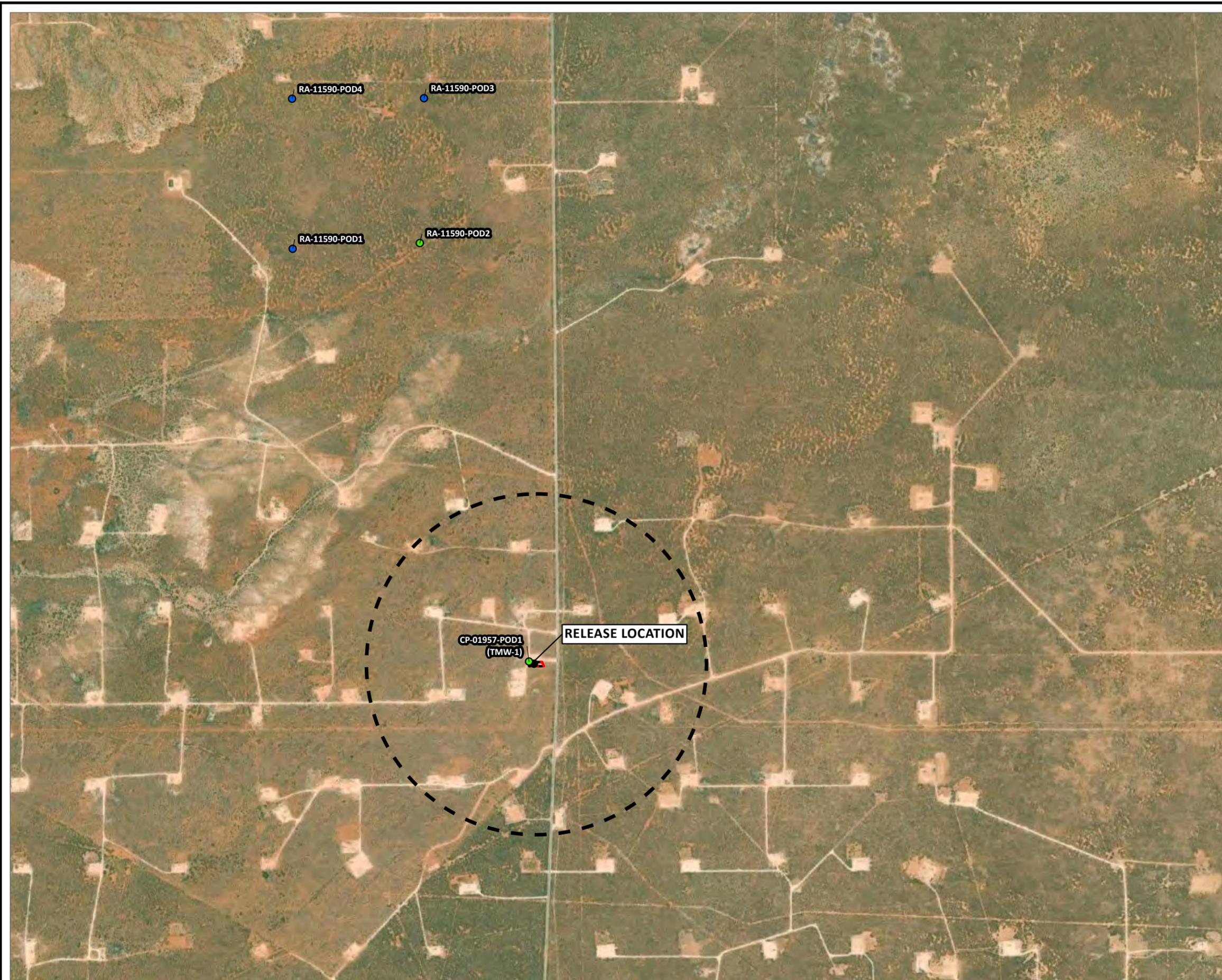
APPROVED BY: J. STOFFEL

DATE: MAY 2023

FIGURE 3

 505 EAST HUNTLAND DRIVE
SUITE #250
AUSTIN, TX 78752
PHONE: 512.329.6080
FILE: 498886_CR22_TEMP.prx

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 FUS - Map Projection: 0
-- Saved By: MJAGOE on 5/28/2023, 12:15:25 PM. File Path: \\U:\PROJECTS\HOLLY ENERGY PARTNERS\498886_CR-222\15-APPX\498886_CR22_TEMP.prx; Layout Name: Figure 3



LEGEND

- RELEASE LOCATION
- SITE BOUNDARY
- HALF MILE RADIUS
- ACTIVE NMOSE POD
- PENDING NMOSE POD

NOTES:

1. PODS = POINTS OF DIVERSION
2. NMOSE = NEW MEXICO OFFICE STATE ENGINEER
3. OSE PODS REPRESENT WATER WELLS AND GROUNDWATER RIGHTS THAT HAVE BEEN REGISTERED WITH THE OSE.

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER.
DATA SOURCES: TRC



1:18,000
1" = 1,500'



PROJECT:		HOLLY ENERGY PARTNERS - OPERATING, L.P. CR-222 TANK STATION, EDDY COUNTY, NM JUNE 2022 CRUDE OIL RELEASE	
TITLE:		WELLHEAD PROTECTION AREA MAP	
DRAWN BY:	M. JAGOE	PROJ. NO.:	524161
CHECKED BY:	R. NIEHAY	FIGURE 4	
APPROVED BY:	J. STOFFEL		
DATE:	MAY 2023		
		505 EAST HUNTLAND DRIVE SUITE #250 AUSTIN, TX 78752 PHONE: 512.329.6080	
		FILE: 498886_CR22_TEMP.prx	

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 FUS; Map Rotation: 0
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LEGEND

- RELEASE LOCATION
- ▭ SITE BOUNDARY
- 300' RADIUS
- ▬ RIVERINE

NOTES:

1. R4SBC = SEASONALLY FLOWING RIVERINE CHANNELS.
- BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER.
 DATA SOURCES: TRC, WETLANDS - FISH AND WILDLIFE SERVICE NATIONAL WETLANDS INVENTORY

RELEASE LOCATION



1:8,040
1" = 670'



PROJECT:		HOLLY ENERGY PARTNERS - OPERATING, L.P. CR-222 TANK STATION, EDDY COUNTY, NM JUNE 2022 CRUDE OIL RELEASE	
TITLE:		WETLANDS MAP	
DRAWN BY:	M. JAGOE	PROJ. NO.:	524161
CHECKED BY:	R. NIEHAY	FIGURE 5	
APPROVED BY:	J. STOFFEL		
DATE:	MAY 2023		
		505 EAST HUNTLAND DRIVE SUITE #250 AUSTIN, TX 78752 PHONE: 512.329.6080	
		FILE: 498886_CR22_TEMP.prx	

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 F1 US - Map Rotation: 0
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LEGEND

- RELEASE LOCATION
- ▭ SITE BOUNDARY
- LOW KARST POTENTIAL

RELEASE LOCATION

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER.
DATA SOURCES: TRC, KARST DATA FROM NEW MEXICO BUREAU OF LAND MANAGEMENT.

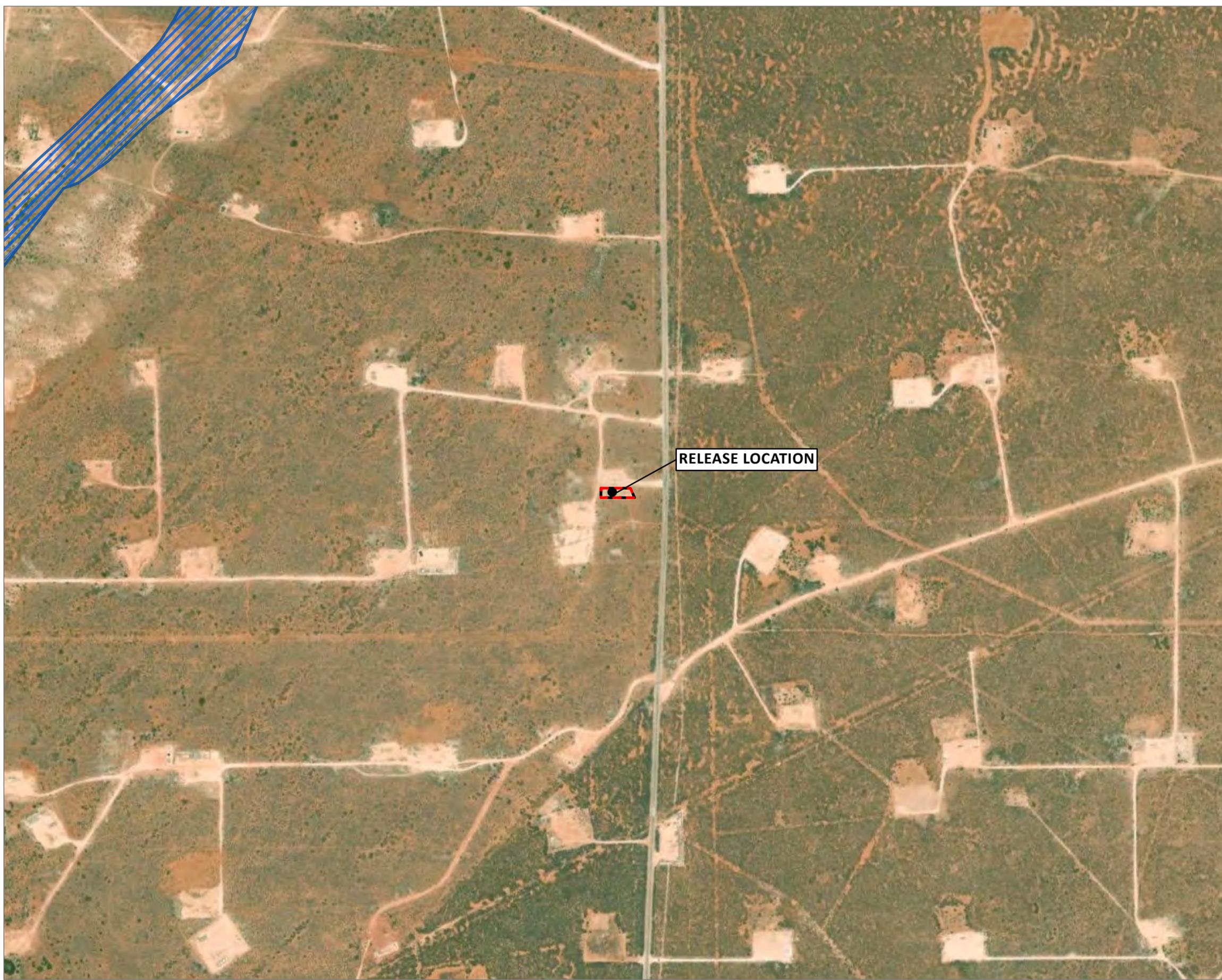


1:8,040
1" = 670'



PROJECT:		HOLLY ENERGY PARTNERS - OPERATING, L.P. CR-222 TANK STATION, EDDY COUNTY, NM JUNE 2022 CRUDE OIL RELEASE	
TITLE:		KARST POTENTIAL MAP	
DRAWN BY:	M. JAGOE	PROJ. NO.:	524161
CHECKED BY:	R. NIEHAY	FIGURE 6	
APPROVED BY:	J. STOFFEL		
DATE:	MAY 2023		
		505 EAST HUNTLAND DRIVE SUITE #250 AUSTIN, TX 78752 PHONE: 512.329.6080	
		FILE:	498886_CR22_TEMP.prx

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 F1 US - Map Rotation: 0
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LEGEND

- RELEASE LOCATION
- ▭ SITE BOUNDARY
- ▨ AREA INSIDE 100 YEAR FLOODPLAIN

BASE MAP: ESRI "WORLD IMAGERY" ONLINE SERVICE LAYER.
 DATA SOURCES: TRC, FLOODPLAIN - FEMA FLOOD MAP SERVICE CENTER (MSC).

RELEASE LOCATION



1:8,040
 1" = 670'



PROJECT:		HOLLY ENERGY PARTNERS - OPERATING, L.P. CR-222 TANK STATION, EDDY COUNTY, NM JUNE 2022 CRUDE OIL RELEASE	
TITLE:		FLOODPLAIN MAP	
DRAWN BY:	M. JAGOE	PROJ. NO.:	524161
CHECKED BY:	R. NIEHAY	FIGURE 7	
APPROVED BY:	J. STOFFEL		
DATE:	MAY 2023		
		505 EAST HUNTLAND DRIVE SUITE #250 AUSTIN, TX 78752 PHONE: 512.329.6080	
		FILE: 498886_CR22_TEMP.prx	

Coordinate System: NAD 1983 2011 StatePlane New Mexico East FIPS 3001 FUS - Map Rotation: 0
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Appendix A:
NMOCD Communication

From: [Stoffel, Jared](#)
To: ocd.enviro@state.nm.us
Cc: [melanie.nolan](#); [Trevor.baird](#); [Gilbert, Bryan](#); [Hoover, Shannon](#); mike.bratcher@state.nm.us
Subject: Liner Inspection and Soil Sampling Notification - nAPP2215951311 CR-222
Date: Friday, June 17, 2022 1:20:00 PM
Attachments: [image001.png](#)

To Whom It May Concern,

TRC, on behalf of Holly Energy Partners – Operating LP, will be conducting a liner inspection event in association with the June 3, 2022, release at the CR-222 Site (nAPP2215951311), as the release footprint was underlain by the liner. In the event punctures are observed in the liner at and in the immediate vicinity of the release footprint, the puncture will be documented and photographed, and a confirmation soil sample will be collected from the soil underlying the puncture. The inspection event is scheduled for **June 23, 2022** (next Thursday). Should you have any questions or concerns please do not hesitate to contact me. Thank you.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
[LinkedIn](#) | [Twitter](#) | [Blog](#) | TRCcompanies.com

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Thursday, December 1, 2022 2:41 PM
To: Nolan, Melanie <Melanie.Nolan@hollyenergy.com>
Subject: The Oil Conservation Division (OCD) has rejected the application, Application ID: 140134

To whom it may concern (c/o Melanie Nolan for HOLLY ENERGY PARTNERS - OPERATING, LP),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2215951311, for the following reasons:

- **When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided. If evidence of depth to ground water within a ½ mile radius of the site cannot be provided, impacted soils will need to meet Table 1 Closure Criteria for ground water at a depth of 50 feet or less.**
- **If you feel the depth to groundwater is >50', a shallow borehole can be drilled to 51' allowing for verification of the depth. If water is not visible after reaching bottom-hole and waiting 72 hours, the OCD will accept this as evidence. We would just need a copy of the driller's log.**
- **Surface sample points and sidewalls on the edge of the release need to be delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH for the spill to be horizontally delineated.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 140134. Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,
Jocelyn Harimon
Environmental Specialist
575-748-1283
Jocelyn.Harimon@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

CONFIDENTIALITY NOTICE: This e-mail, and any attachments, may contain information that is privileged and confidential. If you received this message in error, please advise the sender immediately by reply e-mail and do not retain any paper or electronic copies of this message or any attachments. Unless expressly stated, nothing contained in this message should be construed as a digital or electronic signature or a commitment to a binding agreement.

From: Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Sent: Wednesday, March 1, 2023 11:15 AM
To: Stoffel, Jared
Cc: Bratcher, Michael, EMNRD; Gilbert, Bryan; Sahba, Arsin; Melanie Nolan; Leik, Jason; Clark, Darija
Subject: RE: [EXTERNAL] Extension Request for nAPP2215951311 CR-222

Follow Up Flag: Follow up
Flag Status: Completed

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Jared,

OCD approves your request for a 90-day extension to May 30, 2023 to submit a remediation plan or closure report. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Jocelyn Harimon • Environmental Specialist
 Environmental Bureau
 EMNRD - Oil Conservation Division
 1220 South St. Francis Drive | Santa Fe, NM 87505
 (505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Wednesday, March 1, 2023 9:53 AM
To: Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Gilbert, Bryan <BGilbert@trccompanies.com>; Sahba, Arsin <Arsin.Sahba@HFSinclair.com>; Melanie Nolan <melanie.nolan@hollyenergy.com>; Leik, Jason <Jason.Leik@HFSinclair.com>; Clark, Darija <dclark@trccompanies.com>
Subject: [EXTERNAL] Extension Request for nAPP2215951311 CR-222

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Jocelyn,

On behalf of HEP, we are requesting a 90-day extension (i.e., until May 30, 2023) for the CR-222 Site (nAPP2215951311). At the request of NMOCD, HEP will drill a depth-to-water borehole and collect surface samples immediately outside of the facility berm. The borehole requires permits from both the NMSLO (landowner) and NMOSE, which has delayed the drilling and soil sampling activities. Following drilling and sampling activities, the updated Remediation Summary and Site Closure Request and C-141 will be submitted to NMOCD by May 30, 2023.

If you approve of the requested 90-day extension, please respond via e-mail. Let me know if you have any questions or would like to discuss in greater detail. Thank you.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752

F: 512 329 8750 | C: 432 238 3003

[LinkedIn](#) | [Twitter](#) | [Blog](#) | [TRCcompanies.com](#)

From: [Harimon, Jocelyn, EMNRD](#)
To: [Stoffel, Jared](#)
Subject: RE: [EXTERNAL] Field Activities and Soil Sampling Notification - CR-222 Site - NAPP2215951311
Date: Monday, March 13, 2023 12:18:10 PM
Attachments: [image003.png](#)

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Jared,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JH

Jocelyn Harimon • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
<http://www.emnrd.nm.gov>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Monday, March 13, 2023 11:15 AM
To: Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Cc: Gilbert, Bryan <BGilbert@trccompanies.com>; Clark, Darija <dclark@trccompanies.com>; Leik, Jason <Jason.Leik@HFSinclair.com>; Sahba, Arsin <Arsin.Sahba@HFSinclair.com>; Melanie Nolan <melanie.nolan@hollyenergy.com>
Subject: RE: [EXTERNAL] Field Activities and Soil Sampling Notification - CR-222 Site - NAPP2215951311

Jocelyn – the boring installation will begin tomorrow (3.13.23) in the morning. The plugging will occur at least 72 hours later (3.17.23) in the morning. Lateral soil samples will be collected on the day of plugging (3.17.23) to accommodate the minimum 48-hour notification window. Please let me know if you have any other questions or concerns. Thank you and have a good morning!

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752

F: 512 329 8750 | C: 432 238 3003

[LinkedIn](#) | [Twitter](#) | [Blog](#) | [TRCcompanies.com](#)

From: Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Sent: Monday, March 13, 2023 12:10 PM
To: Stoffel, Jared <JStoffel@trccompanies.com>
Subject: RE: [EXTERNAL] Field Activities and Soil Sampling Notification - CR-222 Site - NAPP2215951311

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ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Jared,

Thank you for this. If you could please provide a date and time for the field sampling activities.

JH

Jocelyn Harimon • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
<http://www.emnrd.nm.gov>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Monday, March 13, 2023 10:56 AM
To: Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Gilbert, Bryan <BGilbert@trccompanies.com>; Clark, Darija <dclark@trccompanies.com>; Leik, Jason <Jason.Leik@HFSinclair.com>; Melanie Nolan <melanie.nolan@hollyenergy.com>; Sahba, Arsin

<Arsin.Sahba@HFSinclair.com>

Subject: [EXTERNAL] Field Activities and Soil Sampling Notification - CR-222 Site - NAPP2215951311

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Jocelyn,

TRC, on behalf of HEP, intends to conduct field and soil sampling activities at the CR-222 Site (NAPP2215951311). A depth to water boring will be drilled to a depth of 51 feet bgs, left open for 72 hours, and gauged prior to plugging to confirm groundwater depth as greater than 50 feet below ground surface (bgs). Additionally, lateral delineation soil sampling will be conducted. This is intended to serve as a notification of field and sampling activities. Please let me know if you have any questions or concerns. Thank you.

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
[LinkedIn](#) | [Twitter](#) | [Blog](#) | TRCcompanies.com

From: [Harimon, Jocelyn, EMNRD](#)
To: [Stoffel, Jared](#)
Subject: RE: [EXTERNAL] CR-222 Sampling Notification - nAPP2215951311
Date: Friday, April 28, 2023 3:37:36 PM
Attachments: [image003.png](#)

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Jared,

Please be aware that notification requirements are **two business days**, per rule. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to insure inclusion in the project file.

JH

Jocelyn Harimon • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
<http://www.emnrd.nm.gov>



From: Stoffel, Jared <JStoffel@trccompanies.com>
Sent: Monday, April 24, 2023 11:06 AM
To: Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Cc: Melanie Nolan <melanie.nolan@hollyenergy.com>; Leik, Jason <Jason.Leik@HFSinclair.com>; Sahba, Arsin <Arsin.Sahba@HFSinclair.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: [EXTERNAL] CR-222 Sampling Notification - nAPP2215951311

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Jocelyn,

TRC, on the behalf of HEP, would like to notify you that we will be collecting soil samples on Wednesday, April 26 at the CR-222 Site (nAPP2215951311). Should you have any questions or concerns please let me know. Thank you very much!

Jared Stoffel, P.G.
Project Manager



505 E Huntland Dr STE 250 Austin, TX 78752
F: 512 329 8750 | C: 432 238 3003
[LinkedIn](#) | [Twitter](#) | [Blog](#) | [TRCcompanies.com](#)



Appendix B:
Form C-141

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>Unknown,</u> <u>>53 ft bgs</u>
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Melanie Nolan Title: Environmental Specialist, Holly Energy Partners

Signature: *Melanie Nolan* Date: 5/24/2024

email: Melanie.Nolan@hollyenergy.com Telephone: 575-748-8972

OCD Only

Received by: _____ Date: _____

Incident ID	NAPP2215951311
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.

- Detailed description of proposed remediation technique
- Scaled sitemap with GPS coordinates showing delineation points
- Estimated volume of material to be remediated
- Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.

- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

Note: Vertical delineation not achieved due to underlying hard caliche layer.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Melanie Nolan Title: Environmental Specialist, Holly Energy Partners

Signature: Melanie Nolan Date: 5/24/2024

email: Melanie.Nolan@hollyenergy.com Telephone: 575-748-8972

OCD Only

Received by: Jocelyn Harimon Date: 05/25/2023

- Approved
- Approved with Attached Conditions of Approval
- Denied
- Deferral Approved

Signature: [Signature] Date: 05/25/2023

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Melanie Nolan Title: Environmental Specialist, Holly Energy Partners

Signature: Melanie Nolan Date: 5/24/2023

email: Melanie.Nolan@hollyenergy.com Telephone: 575-748-8972

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____



**Appendix C:
Waste Documentation**

Received by OGD: 5/25/2023 12:00:17 AM

4679

Name Paul Page 2 of 147

Phone No. 575 7034735

GENERATOR

Operator No. Holly Frontier Navajo LLC
Operators Name Jason O. Roberts
Address PO Box 159
Artesia, New Mexico 88211-0159
City, State, Zip _____
Phone No. 575-703-6164

Location of Origin HE P
Lease/Well _____
Name & No. SUGGAT 222
County _____
API No. Crude oil rock + Gravel
Rig Name & No. _____
AFE/PO No. S BWS Bn H

DISPOSAL FACILITY

RECEIVING AREA
Name/No. Landfill

TRUCK TIME STAMP
IN: 10:13AM OUT: _____
Site Name / Permit No. Commercial Landfarm (NM-711-1-0020)
Address P.O. Box 1658 Roswell, NM 88202
NORM Readings Taken? (Circle One) YES NO
Pass the Paint Filter Test? (Circle One) YES NO

Phone No. 575-397-0434
If YES, was reading > 50 micro roentgens? (Circle One) YES NO

TRANSPORTER

Transporter's Name S Brothers Waste Services, Inc.
Address Artesia, New Mexico
Phone No. _____

Driver's Name Fabian Arosta
Print Name _____
Phone No. 575-840-5143
Truck No. 14

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.
7-15-22 Sol. Cant 7-15-22 Sol. Cant
SHIPMENT DATE DRIVER'S SIGNATURE DELIVERY DATE DRIVER'S SIGNATURE

Exempt E&P Waste/Service Identification and Amount (Place volume next to waste type in barrels or cubic yards)

Oil Based Muds _____	NON-INJECTABLE WATERS	INJECTABLE WATERS
Oil Based Cuttings _____	Washout Water (Non-Injectable) _____	Washout Water (Injectable) _____
Water Based Muds _____	Completion Fluid/Flowback (Non-Injectable) _____	Completion Fluid/Flowback (Injectable) _____
Water Based Cuttings _____	Produced Water (Non-Injectable) _____	Produced Water (Injectable) _____
Produced Formation Solids _____	Gathering Line Water/Waste (Non-Injectable) _____	Gathering Line Water/Waste (Injectable) _____
Tank Bottoms _____	INTERNAL USE ONLY	OTHER EXEMPT WASTES
E&P Contaminated Soil _____	Truck Washout (Exempt Waste) _____	(Types and generation process of the waste)
Gas Plant Waste _____		

WASTE GENERATION PROCESS: Drilling Completion Production Gathering Lines

Non-Exempt E&P Waste/Service Identification and Amount

(All non-exempt E&P waste must be analyzed and be below the threshold limits for toxicity (TCLP), ignition, corrosiveness, and reactivity.)

Non-Exempt Other: Crude oil rock & Gravel *Please select from Non-Exempt Waste List on back
QUANTITY: _____ B - Barrels _____ L - Liquid _____ Y - Yards _____ E - Each

C-138

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

- RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. (Gandy Marley, Inc. accepts certifications on a per month only basis.)
- RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided.)
 - MSDS Information
 - RCRA Hazardous Waste Analysis
 - Other (Provide Description Below) Generator Knowledge

EMERGENCY NON-OILFIELD: Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety. (The order, documentation of non-hazardous waste determination and a description of the waste must accompany this form.)

(PRINT) AUTHORIZED AGENTS SIGNATURE _____ DATE _____ SIGNATURE _____
Kimberly Murphy 7-15-22 Kimberly Murphy
NAME (PRINT) DATE TITLE SIGNATURE
SUPERIOR PRINTING SERVICES, INC.



**Appendix D:
Photograph Log**

Appendix D Photograph Log



Photo 1: View southwest of the northern portion of the Site showing tanks, infrastructure, stairway, and walkway. The release occurred within the lined secondary containment area.



Photo 2: View east of the northern portion of the Site showing tanks, infrastructure, stairway, and walkway. The release occurred within the lined secondary containment area.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
524161.0000	TRC and HEP	1 of 10	Holly Energy Partners – Operating, L.P.	HEP CR-222 Tank Station Eddy County, NM	

Appendix D Photograph Log



Photo 3: View west of the southern portion of the Site showing liner, tanks, infrastructure, stairway, and walkway.



Photo 4: View east of the pump and associated pad, with aboveground steel piping extending into the lined secondary containment area.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
524161.0000	TRC and HEP	2 of 10	Holly Energy Partners – Operating, L.P.	HEP CR-222 Tank Station Eddy County, NM	

Appendix D Photograph Log



Photo 5: View northwest of the aboveground steel piping and Site infrastructure in the area near S-1 and S-2 sample locations.

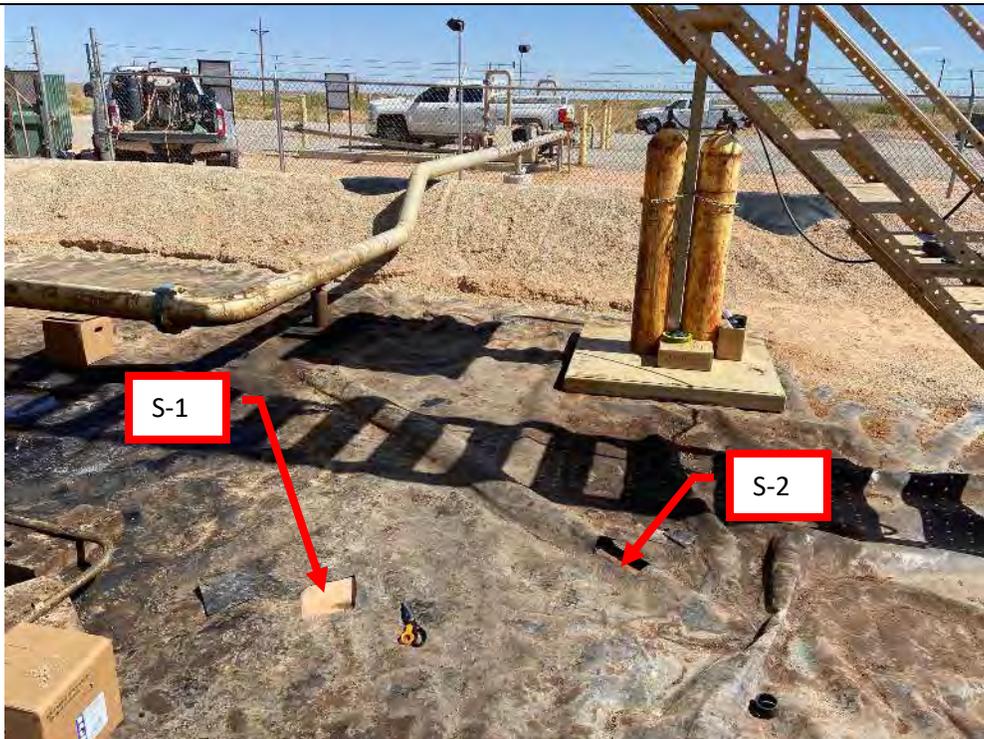


Photo 6: Sample locations S-1 and S-2 are located approximately three to six feet from the aboveground steel piping and beneath the Site stairway.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
524161.0000	TRC and HEP	3 of 10	Holly Energy Partners – Operating, L.P.	HEP CR-222 Tank Station Eddy County, NM	

Appendix D Photograph Log



Photo 7: View of S-3 sample location. Holes in the liner were expanded for access and samples were collected directly beneath liner holes.

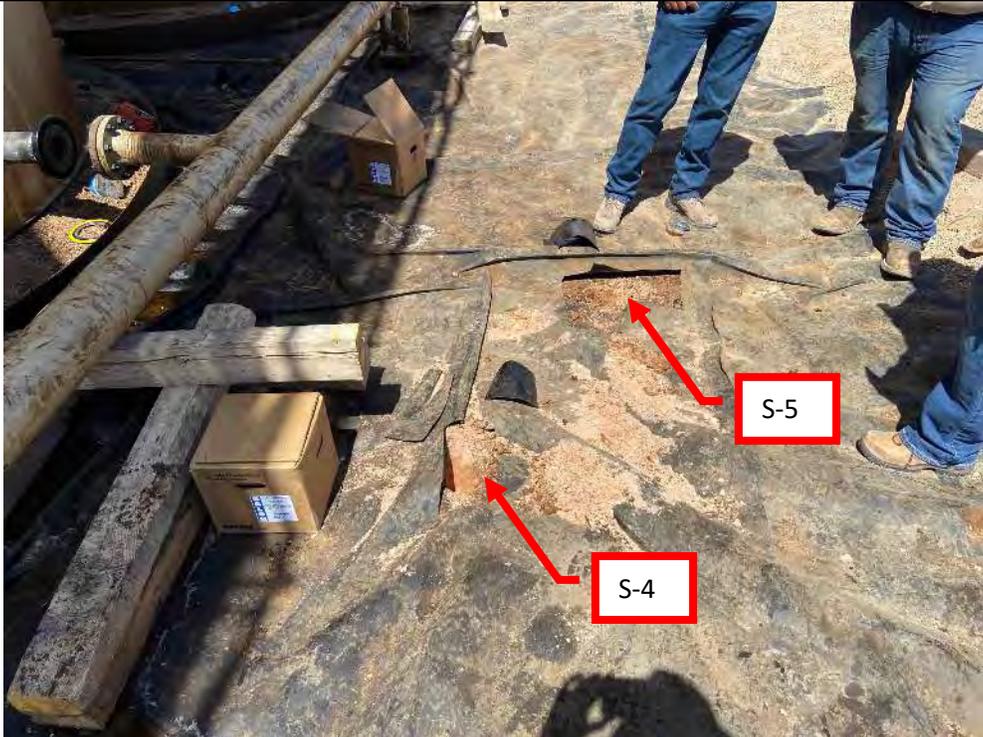


Photo 8: Sample locations S-4 and S-5 are located approximately 2 to 3 feet from the aboveground steel piping on the northern side of the tanks.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
524161.0000	TRC and HEP	4 of 10	Holly Energy Partners – Operating, L.P.	HEP CR-222 Tank Station Eddy County, NM	

Appendix D Photograph Log



Photo 9: View of the repaired liner in the S-4 and S-5 area. The secondary containment liner has been repaired, inspected, and determined to be in good condition. The repaired liner will prevent vertical migration of contaminants of concern (COCs) left in situ.



Photo 10: View of the repaired liner in the S-2 area. The secondary containment liner has been repaired, inspected, and determined to be in good condition. The repaired liner will prevent vertical migration of COCs left in situ.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
524161.0000	TRC and HEP	5 of 10	Holly Energy Partners – Operating, L.P.	HEP CR-222 Tank Station Eddy County, NM	

Appendix D Photograph Log



Photo 11: View southwest of the backfill of the lined secondary containment area. Clean pea gravel was placed over the repaired liner.



Photo 12: View southwest of the backfill of the lined secondary containment area. Clean pea gravel was placed over the repaired liner.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
524161.0000	TRC and HEP	6 of 10	Holly Energy Partners – Operating, L.P.	HEP CR-222 Tank Station Eddy County, NM	

Appendix D Photograph Log

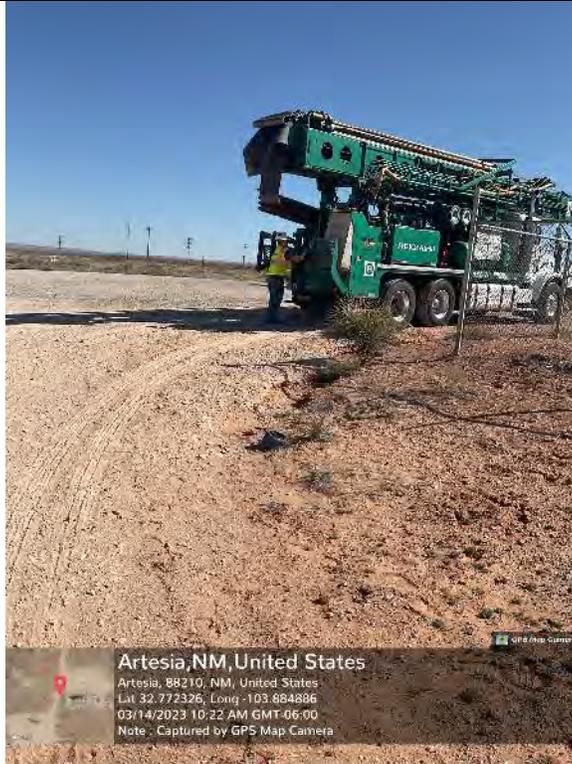


Photo 13: View of air rotary drill rig deploying to perform Temporary Monitoring Well-1 (TMW-1).



Photo 14: View southwest of TMW-1 installed.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
524161.0000	TRC and HEP	7 of 10	Holly Energy Partners – Operating, L.P.	HEP CR-222 Tank Station Eddy County, NM	

Appendix D Photograph Log



Photo 15: View of TMW-1 plugged after gauging (no water).



Photo 16: View south of AH-01 sampling location.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
524161.0000	TRC and HEP	8 of 10	Holly Energy Partners – Operating, L.P.	HEP CR-222 Tank Station Eddy County, NM	

Appendix D Photograph Log

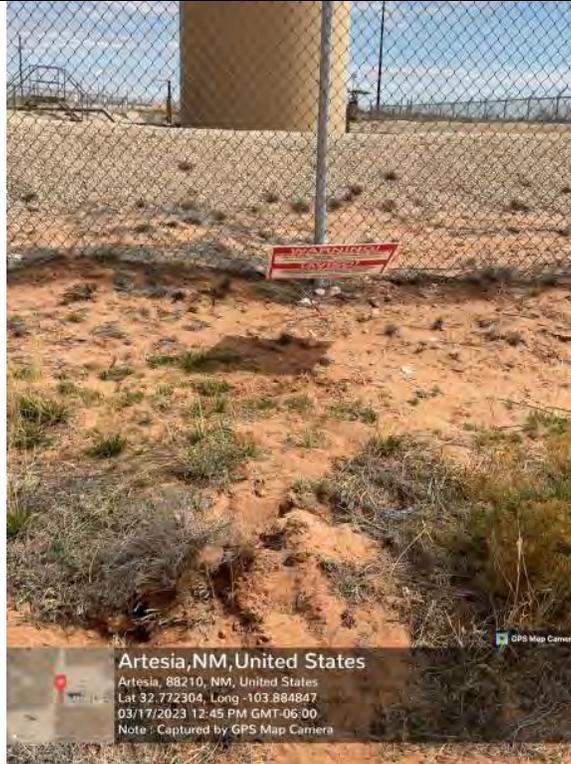


Photo 17: View east of AH-02 sampling location.



Photo 18: View north of AH-03 sampling location.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
524161.0000	TRC and HEP	9 of 10	Holly Energy Partners – Operating, L.P.	HEP CR-222 Tank Station Eddy County, NM	

Appendix D Photograph Log



Photo 19: View northeast of AH-04 sampling location.



Photo 20: View south of waste drum staging location.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
524161.0000	TRC and HEP	10 of 10	Holly Energy Partners – Operating, L.P.	HEP CR-222 Tank Station Eddy County, NM	



Appendix E:
Laboratory Analytical Reports



Environment Testing
America

ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-16262-1
Laboratory Sample Delivery Group: Loco Hills NM
Client Project/Site: HEP CR-222 TB

For:
TRC Solutions, Inc.
2057 Commerce Drive
Midland, Texas 79703

Attn: Jared Stoffel

Authorized for release by:
7/5/2022 4:52:37 PM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com



LINKS

Review your project
results through



Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Laboratory Job ID: 880-16262-1
SDG: Loco Hills NM

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Job ID: 880-16262-1

Laboratory: Eurofins Midland**Narrative****Job Narrative
880-16262-1****Receipt**

The samples were received on 6/23/2022 4:36 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C

GC VOA

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 880-28607 recovered outside control limits for the following analytes: Benzene, Toluene and o-Xylene.

Method 8021B: The matrix spike (MS) recoveries for analytical batch 880-28607 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: S-2 @ 0-6" (880-16262-2), S-4 @ 0-6" (880-16262-4) and S-5 @ 0-6" (880-16262-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-16219-A-1-G MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-28311 and analytical batch 880-28305 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: S-4 @ 0-6" (880-16262-4) and S-5 @ 0-6" (880-16262-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.



Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TBJob ID: 880-16262-1
SDG: Loco Hills NM

Client Sample ID: S-1 @ 0-6"

Lab Sample ID: 880-16262-1

Date Collected: 06/23/22 09:30

Matrix: Solid

Date Received: 06/23/22 16:36

Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/24/22 09:34	06/24/22 20:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/24/22 09:34	06/24/22 20:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/24/22 09:34	06/24/22 20:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/24/22 09:34	06/24/22 20:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/24/22 09:34	06/24/22 20:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/24/22 09:34	06/24/22 20:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	06/24/22 09:34	06/24/22 20:31	1
1,4-Difluorobenzene (Surr)	95		70 - 130	06/24/22 09:34	06/24/22 20:31	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/27/22 14:54	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			06/27/22 09:26	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/24/22 09:30	06/24/22 16:16	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/24/22 09:30	06/24/22 16:16	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/24/22 09:30	06/24/22 16:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	06/24/22 09:30	06/24/22 16:16	1
o-Terphenyl	128		70 - 130	06/24/22 09:30	06/24/22 16:16	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	266		5.02		mg/Kg			06/30/22 08:12	1

Client Sample ID: S-2 @ 0-6"

Lab Sample ID: 880-16262-2

Date Collected: 06/23/22 09:45

Matrix: Solid

Date Received: 06/23/22 16:36

Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0400	U	0.0400		mg/Kg		06/24/22 09:34	06/24/22 21:50	20
Toluene	0.896		0.0400		mg/Kg		06/24/22 09:34	06/24/22 21:50	20
Ethylbenzene	4.63		0.0400		mg/Kg		06/24/22 09:34	06/24/22 21:50	20
m-Xylene & p-Xylene	2.58		0.0800		mg/Kg		06/24/22 09:34	06/24/22 21:50	20
o-Xylene	1.71		0.0400		mg/Kg		06/24/22 09:34	06/24/22 21:50	20
Xylenes, Total	4.29		0.0800		mg/Kg		06/24/22 09:34	06/24/22 21:50	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	152	S1+	70 - 130	06/24/22 09:34	06/24/22 21:50	20

Eurofins Midland

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Client Sample ID: S-2 @ 0-6"

Lab Sample ID: 880-16262-2

Date Collected: 06/23/22 09:45

Matrix: Solid

Date Received: 06/23/22 16:36

Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	85		70 - 130	06/24/22 09:34	06/24/22 21:50	20

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	9.82		0.0800		mg/Kg			06/27/22 14:54	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	3120		49.9		mg/Kg			06/27/22 09:26	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	409		49.9		mg/Kg		06/24/22 09:30	06/24/22 17:21	1
Diesel Range Organics (Over C10-C28)	2710		49.9		mg/Kg		06/24/22 09:30	06/24/22 17:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/24/22 09:30	06/24/22 17:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130	06/24/22 09:30	06/24/22 17:21	1
o-Terphenyl	122		70 - 130	06/24/22 09:30	06/24/22 17:21	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	64.8		5.02		mg/Kg			06/30/22 08:40	1

Client Sample ID: S-3 @ 0-6"

Lab Sample ID: 880-16262-3

Date Collected: 06/23/22 10:00

Matrix: Solid

Date Received: 06/23/22 16:36

Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/22 09:34	06/24/22 20:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/22 09:34	06/24/22 20:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/22 09:34	06/24/22 20:57	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/24/22 09:34	06/24/22 20:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/22 09:34	06/24/22 20:57	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/24/22 09:34	06/24/22 20:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	06/24/22 09:34	06/24/22 20:57	1
1,4-Difluorobenzene (Surr)	98		70 - 130	06/24/22 09:34	06/24/22 20:57	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			06/27/22 14:54	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			06/27/22 09:26	1

Eurofins Midland

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Client Sample ID: S-3 @ 0-6"

Lab Sample ID: 880-16262-3

Date Collected: 06/23/22 10:00

Matrix: Solid

Date Received: 06/23/22 16:36

Sample Depth: 0-6"

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/24/22 09:30	06/24/22 16:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/24/22 09:30	06/24/22 16:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/24/22 09:30	06/24/22 16:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130				06/24/22 09:30	06/24/22 16:37	1
o-Terphenyl	119		70 - 130				06/24/22 09:30	06/24/22 16:37	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.18		5.05		mg/Kg			06/30/22 08:49	1

Client Sample ID: S-4 @ 0-6"

Lab Sample ID: 880-16262-4

Date Collected: 06/23/22 10:15

Matrix: Solid

Date Received: 06/23/22 16:36

Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.456		0.0399		mg/Kg		06/24/22 09:34	06/24/22 22:16	20
Toluene	5.61		0.0399		mg/Kg		06/24/22 09:34	06/24/22 22:16	20
Ethylbenzene	10.5		0.200		mg/Kg		06/27/22 15:00	06/27/22 18:12	100
m-Xylene & p-Xylene	5.74		0.0798		mg/Kg		06/24/22 09:34	06/24/22 22:16	20
o-Xylene	4.02		0.0399		mg/Kg		06/24/22 09:34	06/24/22 22:16	20
Xylenes, Total	9.76		0.0798		mg/Kg		06/24/22 09:34	06/24/22 22:16	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	243	S1+	70 - 130				06/24/22 09:34	06/24/22 22:16	20
1,4-Difluorobenzene (Surr)	98		70 - 130				06/24/22 09:34	06/24/22 22:16	20

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	26.3		0.200		mg/Kg			06/27/22 14:54	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	824		49.9		mg/Kg			06/27/22 09:26	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	141		49.9		mg/Kg		06/24/22 09:30	06/24/22 17:20	1
Diesel Range Organics (Over C10-C28)	568		49.9		mg/Kg		06/24/22 09:30	06/24/22 17:20	1
Oil Range Organics (Over C28-C36)	115		49.9		mg/Kg		06/24/22 09:30	06/24/22 17:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130				06/24/22 09:30	06/24/22 17:20	1
o-Terphenyl	115		70 - 130				06/24/22 09:30	06/24/22 17:20	1

Eurofins Midland

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Client Sample ID: S-4 @ 0-6"

Lab Sample ID: 880-16262-4

Date Collected: 06/23/22 10:15

Matrix: Solid

Date Received: 06/23/22 16:36

Sample Depth: 0-6"

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	55.1		5.03		mg/Kg			06/30/22 08:58	1

Client Sample ID: S-5 @ 0-6"

Lab Sample ID: 880-16262-5

Date Collected: 06/23/22 10:30

Matrix: Solid

Date Received: 06/23/22 16:36

Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.48		0.0398		mg/Kg		06/24/22 09:34	06/24/22 22:42	20
Toluene	12.7		0.196		mg/Kg		06/27/22 15:00	06/27/22 18:32	100
Ethylbenzene	25.0		0.196		mg/Kg		06/27/22 15:00	06/27/22 18:32	100
m-Xylene & p-Xylene	10.0		0.0795		mg/Kg		06/24/22 09:34	06/24/22 22:42	20
o-Xylene	6.05		0.0398		mg/Kg		06/24/22 09:34	06/24/22 22:42	20
Xylenes, Total	16.1		0.0795		mg/Kg		06/24/22 09:34	06/24/22 22:42	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	279	S1+	70 - 130				06/24/22 09:34	06/24/22 22:42	20
1,4-Difluorobenzene (Surr)	76		70 - 130				06/24/22 09:34	06/24/22 22:42	20

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	55.2		0.196		mg/Kg			06/27/22 14:54	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1510		49.8		mg/Kg			06/27/22 09:26	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	255		49.8		mg/Kg		06/24/22 09:30	06/24/22 16:59	1
Diesel Range Organics (Over C10-C28)	1020		49.8		mg/Kg		06/24/22 09:30	06/24/22 16:59	1
Oil Range Organics (Over C28-C36)	239		49.8		mg/Kg		06/24/22 09:30	06/24/22 16:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130				06/24/22 09:30	06/24/22 16:59	1
o-Terphenyl	105		70 - 130				06/24/22 09:30	06/24/22 16:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	205		4.97		mg/Kg			06/30/22 09:07	1

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TBJob ID: 880-16262-1
SDG: Loco Hills NM

Client Sample ID: Duplicate-01

Lab Sample ID: 880-16262-6

Date Collected: 06/23/22 00:00

Matrix: Solid

Date Received: 06/23/22 16:36

Sample Depth: 0-6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		06/24/22 09:34	06/24/22 21:24	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/24/22 09:34	06/24/22 21:24	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/24/22 09:34	06/24/22 21:24	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		06/24/22 09:34	06/24/22 21:24	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/24/22 09:34	06/24/22 21:24	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		06/24/22 09:34	06/24/22 21:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	06/24/22 09:34	06/24/22 21:24	1
1,4-Difluorobenzene (Surr)	89		70 - 130	06/24/22 09:34	06/24/22 21:24	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			06/27/22 14:54	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			06/27/22 09:26	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/24/22 09:30	06/24/22 16:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/24/22 09:30	06/24/22 16:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/24/22 09:30	06/24/22 16:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130	06/24/22 09:30	06/24/22 16:39	1
o-Terphenyl	122		70 - 130	06/24/22 09:30	06/24/22 16:39	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.99	U	4.99		mg/Kg			06/30/22 09:35	1

Client Sample ID: Trip Blank

Lab Sample ID: 880-16262-7

Date Collected: 06/23/22 00:00

Matrix: Water

Date Received: 06/23/22 16:36

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200		mg/L			06/29/22 15:06	1
Toluene	<0.00200	U *1	0.00200		mg/L			06/29/22 15:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			06/29/22 15:06	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			06/29/22 15:06	1
o-Xylene	<0.00200	U *1	0.00200		mg/L			06/29/22 15:06	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			06/29/22 15:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130		06/29/22 15:06	1
1,4-Difluorobenzene (Surr)	91		70 - 130		06/29/22 15:06	1

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Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Client Sample ID: Trip Blank

Lab Sample ID: 880-16262-7

Date Collected: 06/23/22 00:00

Matrix: Water

Date Received: 06/23/22 16:36

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			07/05/22 16:18	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
880-16219-A-1-F MS	Matrix Spike	81	128
880-16219-A-1-G MSD	Matrix Spike Duplicate	66 S1-	116
880-16262-1	S-1 @ 0-6"	117	95
880-16262-2	S-2 @ 0-6"	152 S1+	85
880-16262-3	S-3 @ 0-6"	106	98
880-16262-4	S-4 @ 0-6"	243 S1+	98
880-16262-5	S-5 @ 0-6"	279 S1+	76
880-16262-6	Duplicate-01	111	89
880-16296-A-7-C MS	Matrix Spike	111	98
880-16296-A-7-D MSD	Matrix Spike Duplicate	116	100
LCS 880-28311/1-A	Lab Control Sample	111	106
LCS 880-28399/1-A	Lab Control Sample	111	98
LCS 880-28311/2-A	Lab Control Sample Dup	104	94
LCS 880-28399/2-A	Lab Control Sample Dup	111	98
MB 880-28311/5-A	Method Blank	82	92
MB 880-28399/5-A	Method Blank	105	89

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
880-16262-7	Trip Blank	128	91
890-2450-A-1 MS	Matrix Spike	123	105
890-2450-A-1 MSD	Matrix Spike Duplicate	127	111
LCS 880-28607/3	Lab Control Sample	111	99
LCS 880-28607/4	Lab Control Sample Dup	124	114
MB 880-28607/8	Method Blank	95	80

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
880-16262-1	S-1 @ 0-6"	112	128
880-16262-2	S-2 @ 0-6"	121	122
880-16262-3	S-3 @ 0-6"	107	119
880-16262-4	S-4 @ 0-6"	117	115
880-16262-5	S-5 @ 0-6"	109	105
880-16262-6	Duplicate-01	115	122
880-16269-A-1-E MS	Matrix Spike	102	94

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Surrogate Summary

Client: TRC Solutions, Inc.
 Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
 SDG: Loco Hills NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-16269-A-1-F MSD	Matrix Spike Duplicate	94	85
880-16273-A-1-C MS	Matrix Spike	99	100
880-16273-A-1-D MSD	Matrix Spike Duplicate	105	105
LCS 880-28301/2-A	Lab Control Sample	101	100
LCS 880-28302/2-A	Lab Control Sample	91	104
LCSD 880-28301/3-A	Lab Control Sample Dup	98	102
LCSD 880-28302/3-A	Lab Control Sample Dup	100	117
MB 880-28301/1-A	Method Blank	99	104
MB 880-28302/1-A	Method Blank	107	122

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-28311/5-A
Matrix: Solid
Analysis Batch: 28305

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/22 09:34	06/24/22 11:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/22 09:34	06/24/22 11:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/22 09:34	06/24/22 11:52	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/24/22 09:34	06/24/22 11:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/22 09:34	06/24/22 11:52	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/24/22 09:34	06/24/22 11:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130	06/24/22 09:34	06/24/22 11:52	1
1,4-Difluorobenzene (Surr)	92		70 - 130	06/24/22 09:34	06/24/22 11:52	1

Lab Sample ID: LCS 880-28311/1-A
Matrix: Solid
Analysis Batch: 28305

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1152		mg/Kg		115	70 - 130
Toluene	0.100	0.1130		mg/Kg		113	70 - 130
Ethylbenzene	0.100	0.1031		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	0.200	0.2193		mg/Kg		110	70 - 130
o-Xylene	0.100	0.1158		mg/Kg		116	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-28311/2-A
Matrix: Solid
Analysis Batch: 28305

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28311

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0998	0.09032		mg/Kg		91	70 - 130	24	35
Toluene	0.0998	0.09467		mg/Kg		95	70 - 130	18	35
Ethylbenzene	0.0998	0.08803		mg/Kg		88	70 - 130	16	35
m-Xylene & p-Xylene	0.200	0.1774		mg/Kg		89	70 - 130	21	35
o-Xylene	0.0998	0.09369		mg/Kg		94	70 - 130	21	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 880-16219-A-1-F MS
Matrix: Solid
Analysis Batch: 28305

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 28311

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0994	0.1083		mg/Kg		109	70 - 130
Toluene	<0.00199	U	0.0994	0.07619		mg/Kg		77	70 - 130

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-16219-A-1-F MS

Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 28305

Prep Batch: 28311

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Ethylbenzene	<0.00199	U	0.0994	0.09041		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.199	0.1737		mg/Kg		87	70 - 130
o-Xylene	<0.00199	U	0.0994	0.09274		mg/Kg		93	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	81		70 - 130
1,4-Difluorobenzene (Surr)	128		70 - 130

Lab Sample ID: 880-16219-A-1-G MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 28305

Prep Batch: 28311

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Benzene	<0.00199	U	0.0998	0.09844		mg/Kg		99	70 - 130	10	35
Toluene	<0.00199	U	0.0998	0.07816		mg/Kg		78	70 - 130	3	35
Ethylbenzene	<0.00199	U	0.0998	0.1004		mg/Kg		101	70 - 130	10	35
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.200	0.08710	F2 F1	mg/Kg		44	70 - 130	66	35
o-Xylene	<0.00199	U	0.0998	0.1125		mg/Kg		112	70 - 130	19	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	66	S1-	70 - 130
1,4-Difluorobenzene (Surr)	116		70 - 130

Lab Sample ID: MB 880-28399/5-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 28415

Prep Batch: 28399

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.00200	U	0.00200		mg/Kg		06/25/22 18:16	06/27/22 10:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/25/22 18:16	06/27/22 10:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/25/22 18:16	06/27/22 10:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/25/22 18:16	06/27/22 10:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/25/22 18:16	06/27/22 10:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/25/22 18:16	06/27/22 10:39	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	105		70 - 130	06/25/22 18:16	06/27/22 10:39	1
1,4-Difluorobenzene (Surr)	89		70 - 130	06/25/22 18:16	06/27/22 10:39	1

Lab Sample ID: LCS 880-28399/1-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 28415

Prep Batch: 28399

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
Benzene	0.100	0.09940		mg/Kg		99	70 - 130
Toluene	0.100	0.09941		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.1040		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	0.200	0.2139		mg/Kg		107	70 - 130

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TBJob ID: 880-16262-1
SDG: Loco Hills NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 880-28399/1-A

Matrix: Solid

Analysis Batch: 28415

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 28399

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.1062		mg/Kg		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-28399/2-A

Matrix: Solid

Analysis Batch: 28415

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 28399

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1047		mg/Kg		105	70 - 130	5	35
Toluene	0.100	0.1036		mg/Kg		104	70 - 130	4	35
Ethylbenzene	0.100	0.1083		mg/Kg		108	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2224		mg/Kg		111	70 - 130	4	35
o-Xylene	0.100	0.1101		mg/Kg		110	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 880-16296-A-7-C MS

Matrix: Solid

Analysis Batch: 28415

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 28399

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.101	0.09366		mg/Kg		93	70 - 130
Toluene	<0.00198	U	0.101	0.08808		mg/Kg		87	70 - 130
Ethylbenzene	<0.00198	U	0.101	0.09013		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	<0.00396	U	0.201	0.1837		mg/Kg		90	70 - 130
o-Xylene	<0.00198	U	0.101	0.09260		mg/Kg		91	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 880-16296-A-7-D MSD

Matrix: Solid

Analysis Batch: 28415

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 28399

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00198	U	0.100	0.08902		mg/Kg		89	70 - 130	5	35
Toluene	<0.00198	U	0.100	0.08284		mg/Kg		82	70 - 130	6	35
Ethylbenzene	<0.00198	U	0.100	0.08637		mg/Kg		86	70 - 130	4	35
m-Xylene & p-Xylene	<0.00396	U	0.200	0.1768		mg/Kg		87	70 - 130	4	35
o-Xylene	<0.00198	U	0.100	0.08971		mg/Kg		88	70 - 130	3	35

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-16296-A-7-D MSD
Matrix: Solid
Analysis Batch: 28415

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 28399

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: MB 880-28607/8
Matrix: Water
Analysis Batch: 28607

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.00200	U	0.00200		mg/L			06/29/22 11:37	1
Toluene	<0.00200	U	0.00200		mg/L			06/29/22 11:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			06/29/22 11:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			06/29/22 11:37	1
o-Xylene	<0.00200	U	0.00200		mg/L			06/29/22 11:37	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			06/29/22 11:37	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	95		70 - 130		06/29/22 11:37	1
1,4-Difluorobenzene (Surr)	80		70 - 130		06/29/22 11:37	1

Lab Sample ID: LCS 880-28607/3
Matrix: Water
Analysis Batch: 28607

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzene	0.0200	0.01809		mg/L		90	70 - 130
Toluene	0.0200	0.01735		mg/L		87	70 - 130
Ethylbenzene	0.0200	0.01649		mg/L		82	70 - 130
m-Xylene & p-Xylene	0.0400	0.03290		mg/L		82	70 - 130
o-Xylene	0.0200	0.01776		mg/L		89	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-28607/4
Matrix: Water
Analysis Batch: 28607

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
		Result	Qualifier						
Benzene	0.0200	0.02285	*1	mg/L		114	70 - 130	23	20
Toluene	0.0200	0.02144	*1	mg/L		107	70 - 130	21	20
Ethylbenzene	0.0200	0.02021		mg/L		101	70 - 130	20	20
m-Xylene & p-Xylene	0.0400	0.04031		mg/L		101	70 - 130	20	20
o-Xylene	0.0200	0.02192	*1	mg/L		110	70 - 130	21	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	124		70 - 130

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-28607/4
Matrix: Water
Analysis Batch: 28607

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Difluorobenzene (Surr)	114		70 - 130

Lab Sample ID: 890-2450-A-1 MS
Matrix: Water
Analysis Batch: 28607

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
	MS %Recovery	MS Qualifier	Limits							
Benzene	0.119	F1 *1	0.100	0.1733	F1	mg/L		55	70 - 130	
Toluene	<0.00200	U *1	0.100	0.09785		mg/L		98	70 - 130	
Ethylbenzene	0.121		0.100	0.1923		mg/L		72	70 - 130	
m-Xylene & p-Xylene	0.00544		0.200	0.1953		mg/L		95	70 - 130	
o-Xylene	<0.00200	U *1	0.100	0.1050		mg/L		105	70 - 130	
Surrogate	MS %Recovery	MS Qualifier	Limits							
4-Bromofluorobenzene (Surr)	123		70 - 130							
1,4-Difluorobenzene (Surr)	105		70 - 130							

Lab Sample ID: 890-2450-A-1 MSD
Matrix: Water
Analysis Batch: 28607

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
	MSD %Recovery	MSD Qualifier	Limits	RPD	Limit						
Benzene	0.119	F1 *1	0.100	0.2045		mg/L		86	70 - 130	17	25
Toluene	<0.00200	U *1	0.100	0.1107		mg/L		111	70 - 130	12	25
Ethylbenzene	0.121		0.100	0.2027		mg/L		82	70 - 130	5	25
m-Xylene & p-Xylene	0.00544		0.200	0.1979		mg/L		96	70 - 130	1	25
o-Xylene	<0.00200	U *1	0.100	0.1126		mg/L		113	70 - 130	7	25
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	127		70 - 130								
1,4-Difluorobenzene (Surr)	111		70 - 130								

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-28301/1-A
Matrix: Solid
Analysis Batch: 28297

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28301

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier	Limits						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/24/22 07:38	06/24/22 10:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/24/22 07:38	06/24/22 10:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/24/22 07:38	06/24/22 10:24	1
Surrogate	MB %Recovery	MB Qualifier	Limits						
1-Chlorooctane	99		70 - 130						
o-Terphenyl	104		70 - 130						

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-28301/2-A
Matrix: Solid
Analysis Batch: 28297

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28301

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	LCS	
								%Recovery	Qualifier
Gasoline Range Organics (GRO)-C6-C10	1000	904.8		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	915.2		mg/Kg		92	70 - 130		
Surrogate									
1-Chlorooctane						101	70 - 130		
o-Terphenyl						100	70 - 130		

Lab Sample ID: LCSD 880-28301/3-A
Matrix: Solid
Analysis Batch: 28297

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28301

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Diesel Range Organics (Over C10-C28)	1000	920.7		mg/Kg		92	70 - 130	1	20
Surrogate									
1-Chlorooctane						98	70 - 130		
o-Terphenyl						102	70 - 130		

Lab Sample ID: 880-16269-A-1-E MS
Matrix: Solid
Analysis Batch: 28297

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 28301

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	<49.9	U	998	815.4		mg/Kg		82	70 - 130
Surrogate									
1-Chlorooctane								102	70 - 130
o-Terphenyl								94	70 - 130

Lab Sample ID: 880-16269-A-1-F MSD
Matrix: Solid
Analysis Batch: 28297

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 28301

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Diesel Range Organics (Over C10-C28)	<49.9	U	999	761.3		mg/Kg		76	70 - 130	7	20
Surrogate											
1-Chlorooctane								94	70 - 130		

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-16269-A-1-F MSD
Matrix: Solid
Analysis Batch: 28297

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 28301

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
<i>o</i> -Terphenyl	85		70 - 130

Lab Sample ID: MB 880-28302/1-A
Matrix: Solid
Analysis Batch: 28293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28302

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/24/22 07:40	06/24/22 09:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/24/22 07:40	06/24/22 09:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/24/22 07:40	06/24/22 09:46	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
<i>1</i> -Chlorooctane	107		70 - 130	06/24/22 07:40	06/24/22 09:46	1
<i>o</i> -Terphenyl	122		70 - 130	06/24/22 07:40	06/24/22 09:46	1

Lab Sample ID: LCS 880-28302/2-A
Matrix: Solid
Analysis Batch: 28293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28302

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	1000	782.3		mg/Kg		78	70 - 130
Diesel Range Organics (Over C10-C28)	1000	925.7		mg/Kg		93	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
<i>1</i> -Chlorooctane	91		70 - 130
<i>o</i> -Terphenyl	104		70 - 130

Lab Sample ID: LCSD 880-28302/3-A
Matrix: Solid
Analysis Batch: 28293

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28302

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	
		Result	Qualifier					RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	815.9		mg/Kg		82	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	998.3		mg/Kg		100	70 - 130	8	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
<i>1</i> -Chlorooctane	100		70 - 130
<i>o</i> -Terphenyl	117		70 - 130

QC Sample Results

Client: TRC Solutions, Inc.
 Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
 SDG: Loco Hills NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-16262-1 MS
 Matrix: Solid
 Analysis Batch: 28657

Client Sample ID: S-1 @ 0-6"
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	266		251	522.8		mg/Kg		102	90 - 110

Lab Sample ID: 880-16262-1 MSD
 Matrix: Solid
 Analysis Batch: 28657

Client Sample ID: S-1 @ 0-6"
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	266		251	527.5		mg/Kg		104	90 - 110	1	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

GC VOA

Analysis Batch: 28305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16262-1	S-1 @ 0-6"	Total/NA	Solid	8021B	28311
880-16262-2	S-2 @ 0-6"	Total/NA	Solid	8021B	28311
880-16262-3	S-3 @ 0-6"	Total/NA	Solid	8021B	28311
880-16262-4	S-4 @ 0-6"	Total/NA	Solid	8021B	28311
880-16262-5	S-5 @ 0-6"	Total/NA	Solid	8021B	28311
880-16262-6	Duplicate-01	Total/NA	Solid	8021B	28311
MB 880-28311/5-A	Method Blank	Total/NA	Solid	8021B	28311
LCS 880-28311/1-A	Lab Control Sample	Total/NA	Solid	8021B	28311
LCSD 880-28311/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	28311
880-16219-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	28311
880-16219-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	28311

Prep Batch: 28311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16262-1	S-1 @ 0-6"	Total/NA	Solid	5035	
880-16262-2	S-2 @ 0-6"	Total/NA	Solid	5035	
880-16262-3	S-3 @ 0-6"	Total/NA	Solid	5035	
880-16262-4	S-4 @ 0-6"	Total/NA	Solid	5035	
880-16262-5	S-5 @ 0-6"	Total/NA	Solid	5035	
880-16262-6	Duplicate-01	Total/NA	Solid	5035	
MB 880-28311/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-28311/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-28311/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-16219-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
880-16219-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 28399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16262-4	S-4 @ 0-6"	Total/NA	Solid	5035	
880-16262-5	S-5 @ 0-6"	Total/NA	Solid	5035	
MB 880-28399/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-28399/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-28399/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-16296-A-7-C MS	Matrix Spike	Total/NA	Solid	5035	
880-16296-A-7-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 28415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16262-4	S-4 @ 0-6"	Total/NA	Solid	8021B	28399
880-16262-5	S-5 @ 0-6"	Total/NA	Solid	8021B	28399
MB 880-28399/5-A	Method Blank	Total/NA	Solid	8021B	28399
LCS 880-28399/1-A	Lab Control Sample	Total/NA	Solid	8021B	28399
LCSD 880-28399/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	28399
880-16296-A-7-C MS	Matrix Spike	Total/NA	Solid	8021B	28399
880-16296-A-7-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	28399

Analysis Batch: 28478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16262-1	S-1 @ 0-6"	Total/NA	Solid	Total BTEX	
880-16262-2	S-2 @ 0-6"	Total/NA	Solid	Total BTEX	
880-16262-3	S-3 @ 0-6"	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

GC VOA (Continued)

Analysis Batch: 28478 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16262-4	S-4 @ 0-6"	Total/NA	Solid	Total BTEX	
880-16262-5	S-5 @ 0-6"	Total/NA	Solid	Total BTEX	
880-16262-6	Duplicate-01	Total/NA	Solid	Total BTEX	

Analysis Batch: 28607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16262-7	Trip Blank	Total/NA	Water	8021B	
MB 880-28607/8	Method Blank	Total/NA	Water	8021B	
LCS 880-28607/3	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-28607/4	Lab Control Sample Dup	Total/NA	Water	8021B	
890-2450-A-1 MS	Matrix Spike	Total/NA	Water	8021B	
890-2450-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8021B	

Analysis Batch: 29026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16262-7	Trip Blank	Total/NA	Water	Total BTEX	

GC Semi VOA

Analysis Batch: 28293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16262-1	S-1 @ 0-6"	Total/NA	Solid	8015B NM	28302
880-16262-2	S-2 @ 0-6"	Total/NA	Solid	8015B NM	28302
880-16262-3	S-3 @ 0-6"	Total/NA	Solid	8015B NM	28302
MB 880-28302/1-A	Method Blank	Total/NA	Solid	8015B NM	28302
LCS 880-28302/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	28302
LCSD 880-28302/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	28302
880-16273-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	28302
880-16273-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	28302

Analysis Batch: 28297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16262-4	S-4 @ 0-6"	Total/NA	Solid	8015B NM	28301
880-16262-5	S-5 @ 0-6"	Total/NA	Solid	8015B NM	28301
880-16262-6	Duplicate-01	Total/NA	Solid	8015B NM	28301
MB 880-28301/1-A	Method Blank	Total/NA	Solid	8015B NM	28301
LCS 880-28301/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	28301
LCSD 880-28301/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	28301
880-16269-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	28301
880-16269-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	28301

Prep Batch: 28301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16262-4	S-4 @ 0-6"	Total/NA	Solid	8015NM Prep	
880-16262-5	S-5 @ 0-6"	Total/NA	Solid	8015NM Prep	
880-16262-6	Duplicate-01	Total/NA	Solid	8015NM Prep	
MB 880-28301/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-28301/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-28301/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-16269-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-16269-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

GC Semi VOA

Prep Batch: 28302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16262-1	S-1 @ 0-6"	Total/NA	Solid	8015NM Prep	
880-16262-2	S-2 @ 0-6"	Total/NA	Solid	8015NM Prep	
880-16262-3	S-3 @ 0-6"	Total/NA	Solid	8015NM Prep	
MB 880-28302/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-28302/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-28302/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-16273-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-16273-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 28420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16262-1	S-1 @ 0-6"	Total/NA	Solid	8015 NM	
880-16262-2	S-2 @ 0-6"	Total/NA	Solid	8015 NM	
880-16262-3	S-3 @ 0-6"	Total/NA	Solid	8015 NM	
880-16262-4	S-4 @ 0-6"	Total/NA	Solid	8015 NM	
880-16262-5	S-5 @ 0-6"	Total/NA	Solid	8015 NM	
880-16262-6	Duplicate-01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 28288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16262-1	S-1 @ 0-6"	Soluble	Solid	DI Leach	
880-16262-2	S-2 @ 0-6"	Soluble	Solid	DI Leach	
880-16262-3	S-3 @ 0-6"	Soluble	Solid	DI Leach	
880-16262-4	S-4 @ 0-6"	Soluble	Solid	DI Leach	
880-16262-5	S-5 @ 0-6"	Soluble	Solid	DI Leach	
880-16262-6	Duplicate-01	Soluble	Solid	DI Leach	
MB 880-28288/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-28288/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-28288/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-16262-1 MS	S-1 @ 0-6"	Soluble	Solid	DI Leach	
880-16262-1 MSD	S-1 @ 0-6"	Soluble	Solid	DI Leach	

Analysis Batch: 28657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16262-1	S-1 @ 0-6"	Soluble	Solid	300.0	28288
880-16262-2	S-2 @ 0-6"	Soluble	Solid	300.0	28288
880-16262-3	S-3 @ 0-6"	Soluble	Solid	300.0	28288
880-16262-4	S-4 @ 0-6"	Soluble	Solid	300.0	28288
880-16262-5	S-5 @ 0-6"	Soluble	Solid	300.0	28288
880-16262-6	Duplicate-01	Soluble	Solid	300.0	28288
MB 880-28288/1-A	Method Blank	Soluble	Solid	300.0	28288
LCS 880-28288/2-A	Lab Control Sample	Soluble	Solid	300.0	28288
LCSD 880-28288/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	28288
880-16262-1 MS	S-1 @ 0-6"	Soluble	Solid	300.0	28288
880-16262-1 MSD	S-1 @ 0-6"	Soluble	Solid	300.0	28288

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Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Client Sample ID: S-1 @ 0-6"

Lab Sample ID: 880-16262-1

Date Collected: 06/23/22 09:30

Matrix: Solid

Date Received: 06/23/22 16:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	28311	06/24/22 09:34	MR	XEN MID
Total/NA	Analysis	8021B		1			28305	06/24/22 20:31	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28478	06/27/22 14:54	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28420	06/27/22 09:26	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	28302	06/24/22 09:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28293	06/24/22 16:16	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	28288	06/23/22 18:32	SMC	XEN MID
Soluble	Analysis	300.0		1			28657	06/30/22 08:12	CH	XEN MID

Client Sample ID: S-2 @ 0-6"

Lab Sample ID: 880-16262-2

Date Collected: 06/23/22 09:45

Matrix: Solid

Date Received: 06/23/22 16:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	28311	06/24/22 09:34	MR	XEN MID
Total/NA	Analysis	8021B		20			28305	06/24/22 21:50	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28478	06/27/22 14:54	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28420	06/27/22 09:26	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	28302	06/24/22 09:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28293	06/24/22 17:21	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	28288	06/23/22 18:32	SMC	XEN MID
Soluble	Analysis	300.0		1			28657	06/30/22 08:40	CH	XEN MID

Client Sample ID: S-3 @ 0-6"

Lab Sample ID: 880-16262-3

Date Collected: 06/23/22 10:00

Matrix: Solid

Date Received: 06/23/22 16:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	28311	06/24/22 09:34	MR	XEN MID
Total/NA	Analysis	8021B		1			28305	06/24/22 20:57	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28478	06/27/22 14:54	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28420	06/27/22 09:26	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	28302	06/24/22 09:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28293	06/24/22 16:37	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	28288	06/23/22 18:32	SMC	XEN MID
Soluble	Analysis	300.0		1			28657	06/30/22 08:49	CH	XEN MID

Client Sample ID: S-4 @ 0-6"

Lab Sample ID: 880-16262-4

Date Collected: 06/23/22 10:15

Matrix: Solid

Date Received: 06/23/22 16:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	28399	06/27/22 15:00	EL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	28415	06/27/22 18:12	MR	XEN MID

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Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Client Sample ID: S-4 @ 0-6"

Lab Sample ID: 880-16262-4

Date Collected: 06/23/22 10:15

Matrix: Solid

Date Received: 06/23/22 16:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	28311	06/24/22 09:34	MR	XEN MID
Total/NA	Analysis	8021B		20			28305	06/24/22 22:16	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28478	06/27/22 14:54	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28420	06/27/22 09:26	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	28301	06/24/22 09:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28297	06/24/22 17:20	AJ	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	28288	06/23/22 18:32	SMC	XEN MID
Soluble	Analysis	300.0		1			28657	06/30/22 08:58	CH	XEN MID

Client Sample ID: S-5 @ 0-6"

Lab Sample ID: 880-16262-5

Date Collected: 06/23/22 10:30

Matrix: Solid

Date Received: 06/23/22 16:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.1 g	5 mL	28399	06/27/22 15:00	EL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	28415	06/27/22 18:32	MR	XEN MID
Total/NA	Prep	5035			5.03 g	5 mL	28311	06/24/22 09:34	MR	XEN MID
Total/NA	Analysis	8021B		20			28305	06/24/22 22:42	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28478	06/27/22 14:54	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28420	06/27/22 09:26	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	28301	06/24/22 09:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28297	06/24/22 16:59	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	28288	06/23/22 18:32	SMC	XEN MID
Soluble	Analysis	300.0		1			28657	06/30/22 09:07	CH	XEN MID

Client Sample ID: Duplicate-01

Lab Sample ID: 880-16262-6

Date Collected: 06/23/22 00:00

Matrix: Solid

Date Received: 06/23/22 16:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	28311	06/24/22 09:34	MR	XEN MID
Total/NA	Analysis	8021B		1			28305	06/24/22 21:24	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28478	06/27/22 14:54	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28420	06/27/22 09:26	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	28301	06/24/22 09:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28297	06/24/22 16:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	28288	06/23/22 18:32	SMC	XEN MID
Soluble	Analysis	300.0		1			28657	06/30/22 09:35	CH	XEN MID

Client Sample ID: Trip Blank

Lab Sample ID: 880-16262-7

Date Collected: 06/23/22 00:00

Matrix: Water

Date Received: 06/23/22 16:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1			28607	06/29/22 15:06	MR	XEN MID

Eurofins Midland

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Client Sample ID: Trip Blank

Lab Sample ID: 880-16262-7

Date Collected: 06/23/22 00:00

Matrix: Water

Date Received: 06/23/22 16:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Total BTEX		1			29026	07/05/22 16:18	SM	XEN MID

Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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Accreditation/Certification Summary

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-23	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX
Total BTEX		Water	Total BTEX

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Method Summary

Client: TRC Solutions, Inc.
 Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
 SDG: Loco Hills NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5030B	Purge and Trap	SW846	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

- ASTM = ASTM International
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



Sample Summary

Client: TRC Solutions, Inc.
Project/Site: HEP CR-222 TB

Job ID: 880-16262-1
SDG: Loco Hills NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-16262-1	S-1 @ 0-6"	Solid	06/23/22 09:30	06/23/22 16:36	0-6"
880-16262-2	S-2 @ 0-6"	Solid	06/23/22 09:45	06/23/22 16:36	0-6"
880-16262-3	S-3 @ 0-6"	Solid	06/23/22 10:00	06/23/22 16:36	0-6"
880-16262-4	S-4 @ 0-6"	Solid	06/23/22 10:15	06/23/22 16:36	0-6"
880-16262-5	S-5 @ 0-6"	Solid	06/23/22 10:30	06/23/22 16:36	0-6"
880-16262-6	Duplicate-01	Solid	06/23/22 00:00	06/23/22 16:36	0-6"
880-16262-7	Trip Blank	Water	06/23/22 00:00	06/23/22 16:36	

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Environment Testing
Xenoco

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
El Paso TX (915) 585-3443 Lubbock TX (806) 794-1296
Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199

Chain of Custody

Work Order No: 162202

www.xenoco.com page 1 of 1

Project Manager:	Jared Stoffel	Bill to: (if different):	
Company Name:	TRC Solutions Inc	Company Name:	
Address:	2057 Commerce Drive	Address:	
City, State ZIP	Midland, TX, 79703	City, State ZIP	
Phone:	432-238-3003	Email:	

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	HEP- CR222 TB	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	498886	Due Date			
Project Location:	Loco Hills, NM				
Sampler's Name:	Patrick Garcia				
PO #:					

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grav/Comp	# of Cont	Parameters		Sample Comments
							300_ORGRM_28D, 8015MOD_NM, 8021B	NO	
S-1 @ 0-6"	Sold	6/23/2022	9 30AM	0-6"	C	1	X		
S-2 @ 0-6"	Sold	6/23/2022	9 45AM	0-6"	C	1	X		
S-3 @ 0-6"	Sold	6/23/2022	10 00AM	0-6"	C	1	X		
S-4 @ 0-6"	Sold	6/23/2022	10 15AM	0-6"	C	1	X		
S-5 @ 0-6"	Sold	6/23/2022	10 30AM	0-6"	C	1	X		
Duplicate-01	Sold	6/23/2022		0-6"	C	1	X		
Trip Blank	Water	6/23/2022				1	X		



880-16262 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245 1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenoco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenoco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenoco. A minimum charge of \$85.00 will be applied to each project and a charge of \$\$ for each sample submitted to Eurofins Xenoco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	6/23/22			2
		10:30			4
					6

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 880-16262-1

SDG Number: Loco Hills NM

Login Number: 16262

List Number: 1

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jared Stoffel
TRC Solutions, Inc.
10 Desta Drive
Suite #130E
Midland, Texas 79705
Generated 4/1/2023 6:28:21 AM

JOB DESCRIPTION

CR-222

JOB NUMBER

880-26166-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701



Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
4/1/2023 6:28:21 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: TRC Solutions, Inc.
Project/Site: CR-222

Laboratory Job ID: 880-26166-1

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Job ID: 880-26166-1

Laboratory: Eurofins Midland**Narrative****Job Narrative
880-26166-1****Receipt**

The samples were received on 3/21/2023 10:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C

GC/MS VOA

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: (880-26100-A-1-B) and (880-26100-A-1-B MS). Elevated reporting limits (RLs) are provided. Sample prepped with methanol from a bulk jar.

Method 8260C: The matrix spike (MS) recoveries for preparation batch 860-95157 and analytical batch 860-95456 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8260C: Sample received in a bulk jar. AH-04,0-6" (880-26166-1), AH-01,0-6" (880-26166-2), AH-02,0-6" (880-26166-3), Duplicate-01 (880-26166-4) and AH-03,0-6" (880-26166-5)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-4371-A-1-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-49652 and analytical batch 880-49691 was outside control limits. Sample non-homogeneity is suspected.

Method 8015MOD_NM: The method blank for preparation batch 880-49652 and analytical batch 880-49691 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.



Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Client Sample ID: AH-04,0-6"

Lab Sample ID: 880-26166-1

Date Collected: 03/17/23 10:30

Matrix: Solid

Date Received: 03/21/23 10:40

Sample Depth: 0 - 6"

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000996	U	0.000996	mg/Kg		03/23/23 10:29	03/23/23 15:23	1
Toluene	<0.00498	U	0.00498	mg/Kg		03/23/23 10:29	03/23/23 15:23	1
Ethylbenzene	<0.000996	U	0.000996	mg/Kg		03/23/23 10:29	03/23/23 15:23	1
m,p-Xylenes	<0.00199	U	0.00199	mg/Kg		03/23/23 10:29	03/23/23 15:23	1
o-Xylene	<0.000996	U	0.000996	mg/Kg		03/23/23 10:29	03/23/23 15:23	1
Xylenes, Total	<0.00199	U	0.00199	mg/Kg		03/23/23 10:29	03/23/23 15:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		56 - 150	03/23/23 10:29	03/23/23 15:23	1
4-Bromofluorobenzene (Surr)	102		68 - 152	03/23/23 10:29	03/23/23 15:23	1
Dibromofluoromethane (Surr)	103		53 - 142	03/23/23 10:29	03/23/23 15:23	1
Toluene-d8 (Surr)	99		70 - 130	03/23/23 10:29	03/23/23 15:23	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00199	U	0.00199	mg/Kg			03/27/23 15:04	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/29/23 12:10	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/27/23 14:32	03/29/23 00:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/27/23 14:32	03/29/23 00:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/27/23 14:32	03/29/23 00:57	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane (Surr)	113		70 - 130	03/27/23 14:32	03/29/23 00:57	1		
o-Terphenyl (Surr)	111		70 - 130	03/27/23 14:32	03/29/23 00:57	1		

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54.1		4.99	mg/Kg			03/31/23 14:42	1

Client Sample ID: AH-01,0-6"

Lab Sample ID: 880-26166-2

Date Collected: 03/17/23 10:45

Matrix: Solid

Date Received: 03/21/23 10:40

Sample Depth: 0 - 6"

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00100	U	0.00100	mg/Kg		03/23/23 10:29	03/23/23 15:44	1
Toluene	<0.00502	U	0.00502	mg/Kg		03/23/23 10:29	03/23/23 15:44	1
Ethylbenzene	<0.00100	U	0.00100	mg/Kg		03/23/23 10:29	03/23/23 15:44	1
m,p-Xylenes	<0.00201	U	0.00201	mg/Kg		03/23/23 10:29	03/23/23 15:44	1
o-Xylene	<0.00100	U	0.00100	mg/Kg		03/23/23 10:29	03/23/23 15:44	1
Xylenes, Total	<0.00201	U	0.00201	mg/Kg		03/23/23 10:29	03/23/23 15:44	1

Eurofins Midland

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Client Sample ID: AH-01,0-6"

Lab Sample ID: 880-26166-2

Date Collected: 03/17/23 10:45

Matrix: Solid

Date Received: 03/21/23 10:40

Sample Depth: 0 - 6"

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		56 - 150	03/23/23 10:29	03/23/23 15:44	1
4-Bromofluorobenzene (Surr)	102		68 - 152	03/23/23 10:29	03/23/23 15:44	1
Dibromofluoromethane (Surr)	106		53 - 142	03/23/23 10:29	03/23/23 15:44	1
Toluene-d8 (Surr)	99		70 - 130	03/23/23 10:29	03/23/23 15:44	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00201	U	0.00201	mg/Kg			03/27/23 15:04	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			03/29/23 12:10	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		03/27/23 14:32	03/29/23 01:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/27/23 14:32	03/29/23 01:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/27/23 14:32	03/29/23 01:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	107		70 - 130	03/27/23 14:32	03/29/23 01:18	1
o-Terphenyl (Surr)	104		70 - 130	03/27/23 14:32	03/29/23 01:18	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1740		24.9	mg/Kg			03/31/23 14:47	5

Client Sample ID: AH-02,0-6"

Lab Sample ID: 880-26166-3

Date Collected: 03/17/23 11:00

Matrix: Solid

Date Received: 03/21/23 10:40

Sample Depth: 0 - 6"

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000998	U	0.000998	mg/Kg		03/23/23 10:29	03/23/23 16:04	1
Toluene	<0.00499	U	0.00499	mg/Kg		03/23/23 10:29	03/23/23 16:04	1
Ethylbenzene	<0.000998	U	0.000998	mg/Kg		03/23/23 10:29	03/23/23 16:04	1
m,p-Xylenes	<0.00200	U	0.00200	mg/Kg		03/23/23 10:29	03/23/23 16:04	1
o-Xylene	<0.000998	U	0.000998	mg/Kg		03/23/23 10:29	03/23/23 16:04	1
Xylenes, Total	<0.00200	U	0.00200	mg/Kg		03/23/23 10:29	03/23/23 16:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		56 - 150	03/23/23 10:29	03/23/23 16:04	1
4-Bromofluorobenzene (Surr)	98		68 - 152	03/23/23 10:29	03/23/23 16:04	1
Dibromofluoromethane (Surr)	106		53 - 142	03/23/23 10:29	03/23/23 16:04	1
Toluene-d8 (Surr)	99		70 - 130	03/23/23 10:29	03/23/23 16:04	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00200	U	0.00200	mg/Kg			03/27/23 15:04	1

Eurofins Midland

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Client Sample ID: AH-02,0-6"

Lab Sample ID: 880-26166-3

Date Collected: 03/17/23 11:00

Matrix: Solid

Date Received: 03/21/23 10:40

Sample Depth: 0 - 6"

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			03/29/23 12:10	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		03/27/23 14:32	03/29/23 01:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/27/23 14:32	03/29/23 01:40	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/27/23 14:32	03/29/23 01:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	93		70 - 130			03/27/23 14:32	03/29/23 01:40	1
o-Terphenyl (Surr)	86		70 - 130			03/27/23 14:32	03/29/23 01:40	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	38.2		5.02	mg/Kg			03/31/23 14:52	1

Client Sample ID: Duplicate-01

Lab Sample ID: 880-26166-4

Date Collected: 03/17/23 00:00

Matrix: Solid

Date Received: 03/21/23 10:40

Sample Depth: 0 - 6"

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00101	U	0.00101	mg/Kg		03/23/23 10:29	03/23/23 16:25	1
Toluene	<0.00505	U	0.00505	mg/Kg		03/23/23 10:29	03/23/23 16:25	1
Ethylbenzene	<0.00101	U	0.00101	mg/Kg		03/23/23 10:29	03/23/23 16:25	1
m,p-Xylenes	<0.00202	U	0.00202	mg/Kg		03/23/23 10:29	03/23/23 16:25	1
o-Xylene	<0.00101	U	0.00101	mg/Kg		03/23/23 10:29	03/23/23 16:25	1
Xylenes, Total	<0.00202	U	0.00202	mg/Kg		03/23/23 10:29	03/23/23 16:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		56 - 150			03/23/23 10:29	03/23/23 16:25	1
4-Bromofluorobenzene (Surr)	105		68 - 152			03/23/23 10:29	03/23/23 16:25	1
Dibromofluoromethane (Surr)	104		53 - 142			03/23/23 10:29	03/23/23 16:25	1
Toluene-d8 (Surr)	100		70 - 130			03/23/23 10:29	03/23/23 16:25	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00202	U	0.00202	mg/Kg			03/27/23 15:04	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			03/29/23 12:10	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		03/27/23 14:32	03/29/23 02:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/27/23 14:32	03/29/23 02:02	1

Eurofins Midland

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Client Sample ID: Duplicate-01

Lab Sample ID: 880-26166-4

Date Collected: 03/17/23 00:00

Matrix: Solid

Date Received: 03/21/23 10:40

Sample Depth: 0 - 6"

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/27/23 14:32	03/29/23 02:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	108		70 - 130			03/27/23 14:32	03/29/23 02:02	1
o-Terphenyl (Surr)	99		70 - 130			03/27/23 14:32	03/29/23 02:02	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	55.3		4.95	mg/Kg			03/31/23 14:57	1

Client Sample ID: AH-03,0-6"

Lab Sample ID: 880-26166-5

Date Collected: 03/17/23 11:20

Matrix: Solid

Date Received: 03/21/23 10:40

Sample Depth: 0 - 6"

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000992	U	0.000992	mg/Kg		03/23/23 10:29	03/23/23 16:45	1
Toluene	<0.00496	U	0.00496	mg/Kg		03/23/23 10:29	03/23/23 16:45	1
Ethylbenzene	<0.000992	U	0.000992	mg/Kg		03/23/23 10:29	03/23/23 16:45	1
m,p-Xylenes	<0.00198	U	0.00198	mg/Kg		03/23/23 10:29	03/23/23 16:45	1
o-Xylene	<0.000992	U	0.000992	mg/Kg		03/23/23 10:29	03/23/23 16:45	1
Xylenes, Total	<0.00198	U	0.00198	mg/Kg		03/23/23 10:29	03/23/23 16:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		56 - 150			03/23/23 10:29	03/23/23 16:45	1
4-Bromofluorobenzene (Surr)	102		68 - 152			03/23/23 10:29	03/23/23 16:45	1
Dibromofluoromethane (Surr)	104		53 - 142			03/23/23 10:29	03/23/23 16:45	1
Toluene-d8 (Surr)	99		70 - 130			03/23/23 10:29	03/23/23 16:45	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00198	U	0.00198	mg/Kg			03/27/23 15:04	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/29/23 12:10	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/27/23 14:32	03/29/23 02:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/27/23 14:32	03/29/23 02:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/27/23 14:32	03/29/23 02:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	89		70 - 130			03/27/23 14:32	03/29/23 02:23	1
o-Terphenyl (Surr)	85		70 - 130			03/27/23 14:32	03/29/23 02:23	1

Eurofins Midland

Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Client Sample ID: AH-03,0-6"

Lab Sample ID: 880-26166-5

Date Collected: 03/17/23 11:20

Matrix: Solid

Date Received: 03/21/23 10:40

Sample Depth: 0 - 6"

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.0		4.97	mg/Kg			03/31/23 15:02	1

Client Sample ID: Trip Blank

Lab Sample ID: 880-26166-6

Date Collected: 03/17/23 00:00

Matrix: Water

Date Received: 03/21/23 10:40

Sample Depth: 0 - 6"

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00100	U	0.00100	mg/L			03/23/23 16:52	1
Toluene	<0.00100	U	0.00100	mg/L			03/23/23 16:52	1
Ethylbenzene	<0.00100	U	0.00100	mg/L			03/23/23 16:52	1
m,p-Xylenes	<0.0100	U	0.0100	mg/L			03/23/23 16:52	1
o-Xylene	<0.00100	U	0.00100	mg/L			03/23/23 16:52	1
Xylenes, Total	<0.0100	U	0.0100	mg/L			03/23/23 16:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		63 - 144				03/23/23 16:52	1
4-Bromofluorobenzene (Surr)	91		74 - 124				03/23/23 16:52	1
Dibromofluoromethane (Surr)	106		75 - 131				03/23/23 16:52	1
Toluene-d8 (Surr)	91		80 - 117				03/23/23 16:52	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.0100	U	0.0100	mg/L			03/27/23 10:03	1

Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (56-150)	BFB (68-152)	DBFM (53-142)	TOL (70-130)
880-26100-A-1-B MS - DL	Matrix Spike	92	94	101	100
880-26166-1	AH-04,0-6"	104	102	103	99
880-26166-2	AH-01,0-6"	101	102	106	99
880-26166-3	AH-02,0-6"	104	98	106	99
880-26166-4	Duplicate-01	108	105	104	100
880-26166-5	AH-03,0-6"	107	102	104	99
LCS 860-95456/3	Lab Control Sample	95	100	100	99
LCSD 860-95456/4	Lab Control Sample Dup	97	97	102	99
MB 860-95456/8	Method Blank	97	99	99	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-117)
860-45504-C-2 MS	Matrix Spike	88	96	103	91
880-26166-6	Trip Blank	99	91	106	91
LCS 860-95482/3	Lab Control Sample	92	97	102	92
LCSD 860-95482/4	Lab Control Sample Dup	94	96	98	92
MB 860-95482/7	Method Blank	96	92	101	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
880-26166-1	AH-04,0-6"	113	111
880-26166-2	AH-01,0-6"	107	104
880-26166-3	AH-02,0-6"	93	86
880-26166-4	Duplicate-01	108	99
880-26166-5	AH-03,0-6"	89	85
890-4371-A-1-B MS	Matrix Spike	88	80
890-4371-A-1-C MSD	Matrix Spike Duplicate	103	91
LCS 880-49652/2-A	Lab Control Sample	103	103
LCSD 880-49652/3-A	Lab Control Sample Dup	102	106
MB 880-49652/1-A	Method Blank	124	124

Surrogate Legend

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Surrogate Summary

Client: TRC Solutions, Inc.
Project/Site: CR-222
1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

Job ID: 880-26166-1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-95456/8
Matrix: Solid
Analysis Batch: 95456

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00100	U	0.00100	mg/Kg			03/23/23 12:44	1
Toluene	<0.00500	U	0.00500	mg/Kg			03/23/23 12:44	1
Ethylbenzene	<0.00100	U	0.00100	mg/Kg			03/23/23 12:44	1
m,p-Xylenes	<0.00200	U	0.00200	mg/Kg			03/23/23 12:44	1
o-Xylene	<0.00100	U	0.00100	mg/Kg			03/23/23 12:44	1
Xylenes, Total	<0.00200	U	0.00200	mg/Kg			03/23/23 12:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		56 - 150		03/23/23 12:44	1
4-Bromofluorobenzene (Surr)	99		68 - 152		03/23/23 12:44	1
Dibromofluoromethane (Surr)	99		53 - 142		03/23/23 12:44	1
Toluene-d8 (Surr)	99		70 - 130		03/23/23 12:44	1

Lab Sample ID: LCS 860-95456/3
Matrix: Solid
Analysis Batch: 95456

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.0500	0.05041		mg/Kg		101	66 - 142
Toluene	0.0500	0.05279		mg/Kg		106	74 - 130
Ethylbenzene	0.0500	0.05400		mg/Kg		108	80 - 130
m,p-Xylenes	0.0500	0.05261		mg/Kg		105	78 - 130
o-Xylene	0.0500	0.05335		mg/Kg		107	79 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		56 - 150
4-Bromofluorobenzene (Surr)	100		68 - 152
Dibromofluoromethane (Surr)	100		53 - 142
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: LCSD 860-95456/4
Matrix: Solid
Analysis Batch: 95456

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.04848		mg/Kg		97	66 - 142	4	25
Toluene	0.0500	0.04974		mg/Kg		99	74 - 130	6	25
Ethylbenzene	0.0500	0.05023		mg/Kg		100	80 - 130	7	25
m,p-Xylenes	0.0500	0.04978		mg/Kg		100	78 - 130	6	25
o-Xylene	0.0500	0.05049		mg/Kg		101	79 - 130	5	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		56 - 150
4-Bromofluorobenzene (Surr)	97		68 - 152
Dibromofluoromethane (Surr)	102		53 - 142
Toluene-d8 (Surr)	99		70 - 130

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 860-95482/7

Matrix: Water

Analysis Batch: 95482

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00100	U	0.00100	mg/L			03/23/23 15:43	1
Toluene	<0.00100	U	0.00100	mg/L			03/23/23 15:43	1
Ethylbenzene	<0.00100	U	0.00100	mg/L			03/23/23 15:43	1
m,p-Xylenes	<0.0100	U	0.0100	mg/L			03/23/23 15:43	1
o-Xylene	<0.00100	U	0.00100	mg/L			03/23/23 15:43	1
Xylenes, Total	<0.0100	U	0.0100	mg/L			03/23/23 15:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		63 - 144		03/23/23 15:43	1
4-Bromofluorobenzene (Surr)	92		74 - 124		03/23/23 15:43	1
Dibromofluoromethane (Surr)	101		75 - 131		03/23/23 15:43	1
Toluene-d8 (Surr)	94		80 - 117		03/23/23 15:43	1

Lab Sample ID: LCS 860-95482/3

Matrix: Water

Analysis Batch: 95482

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.0500	0.04701		mg/L		94	75 - 125
Toluene	0.0500	0.04276		mg/L		86	70 - 130
Ethylbenzene	0.0500	0.04297		mg/L		86	75 - 125
m,p-Xylenes	0.0500	0.04395		mg/L		88	75 - 125
o-Xylene	0.0500	0.04307		mg/L		86	75 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		63 - 144
4-Bromofluorobenzene (Surr)	97		74 - 124
Dibromofluoromethane (Surr)	102		75 - 131
Toluene-d8 (Surr)	92		80 - 117

Lab Sample ID: LCSD 860-95482/4

Matrix: Water

Analysis Batch: 95482

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.04974		mg/L		99	75 - 125	6	25
Toluene	0.0500	0.04306		mg/L		86	70 - 130	1	25
Ethylbenzene	0.0500	0.04438		mg/L		89	75 - 125	3	25
m,p-Xylenes	0.0500	0.04464		mg/L		89	75 - 125	2	25
o-Xylene	0.0500	0.04478		mg/L		90	75 - 125	4	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		63 - 144
4-Bromofluorobenzene (Surr)	96		74 - 124
Dibromofluoromethane (Surr)	98		75 - 131
Toluene-d8 (Surr)	92		80 - 117

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 860-45504-C-2 MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 95482

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Benzene	<0.00100	U	0.0500	0.06696		mg/L		134	66 - 142
Toluene	<0.00100	U	0.0500	0.05313		mg/L		106	59 - 139
Ethylbenzene	<0.00100	U	0.0500	0.05586		mg/L		112	75 - 125
m,p-Xylenes	<0.0100	U	0.0500	0.05714		mg/L		114	75 - 125
o-Xylene	<0.00100	U	0.0500	0.05496		mg/L		110	75 - 125
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	88		63 - 144						
4-Bromofluorobenzene (Surr)	96		74 - 124						
Dibromofluoromethane (Surr)	103		75 - 131						
Toluene-d8 (Surr)	91		80 - 117						

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Lab Sample ID: 880-26100-A-1-B MS

Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 95456

Prep Batch: 95157

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Benzene - DL	<0.201	U F1	10000	9.858	F1	mg/Kg		0.1	71 - 119
Toluene - DL	<1.00	U F1	10000	10.74	F1	mg/Kg		0.1	74 - 122
Ethylbenzene - DL	3.00	F1	10000	12.94	F1	mg/Kg		0.1	80 - 123
m,p-Xylenes - DL	9.55	F1	10000	18.22	F1	mg/Kg		0.09	78 - 127
o-Xylene - DL	4.92	F1	10000	14.68	F1	mg/Kg		0.1	79 - 125
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr) - DL	92		56 - 150						
4-Bromofluorobenzene (Surr) - DL	94		68 - 152						
Dibromofluoromethane (Surr) - DL	101		53 - 142						
Toluene-d8 (Surr) - DL	100		70 - 130						

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-49652/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 49691

Prep Batch: 49652

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/27/23 14:32	03/28/23 21:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/27/23 14:32	03/28/23 21:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/27/23 14:32	03/28/23 21:43	1
MB MB								
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane (Surr)	124		70 - 130	03/27/23 14:32	03/28/23 21:43	1		

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QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-49652/1-A
Matrix: Solid
Analysis Batch: 49691

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49652

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
<i>o</i> -Terphenyl (Surr)	124		70 - 130	03/27/23 14:32	03/28/23 21:43	1

Lab Sample ID: LCS 880-49652/2-A
Matrix: Solid
Analysis Batch: 49691

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49652

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	869.0		mg/Kg		87	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	875.2		mg/Kg		88	70 - 130	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
<i>1</i> -Chlorooctane (Surr)	103		70 - 130
<i>o</i> -Terphenyl (Surr)	103		70 - 130

Lab Sample ID: LCSD 880-49652/3-A
Matrix: Solid
Analysis Batch: 49691

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49652

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD	
									RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	972.5		mg/Kg		97	70 - 130	11	20	
Diesel Range Organics (Over C10-C28)	1000	912.9		mg/Kg		91	70 - 130	4	20	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
<i>1</i> -Chlorooctane (Surr)	102		70 - 130
<i>o</i> -Terphenyl (Surr)	106		70 - 130

Lab Sample ID: 890-4371-A-1-B MS
Matrix: Solid
Analysis Batch: 49691

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 49652

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	997	862.1		mg/Kg		86	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U	997	895.2		mg/Kg		90	70 - 130	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
<i>1</i> -Chlorooctane (Surr)	88		70 - 130
<i>o</i> -Terphenyl (Surr)	80		70 - 130

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-4371-A-1-C MSD
Matrix: Solid
Analysis Batch: 49691

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 49652

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	999	1185	F2	mg/Kg		119	70 - 130	32	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1014		mg/Kg		102	70 - 130	12	20
Surrogate	%Recovery	MSD Qualifier		MSD						Limits	
1-Chlorooctane (Surr)	103									70 - 130	
o-Terphenyl (Surr)	91									70 - 130	

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49885/1-A
Matrix: Solid
Analysis Batch: 50029

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			03/31/23 11:54	1

Lab Sample ID: LCS 880-49885/2-A
Matrix: Solid
Analysis Batch: 50029

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	254.7		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-49885/3-A
Matrix: Solid
Analysis Batch: 50029

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	254.9		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 880-26164-A-7-D MS
Matrix: Solid
Analysis Batch: 50029

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	219		250	451.8		mg/Kg		93	90 - 110

Lab Sample ID: 880-26164-A-7-E MSD
Matrix: Solid
Analysis Batch: 50029

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	219		250	451.1		mg/Kg		93	90 - 110	0	20

Eurofins Midland

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

GC/MS VOA

Prep Batch: 95157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26100-A-1-B MS - DL	Matrix Spike	Total/NA	Solid	5035	

Analysis Batch: 95456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26166-1	AH-04,0-6"	Total/NA	Solid	8260C	95488
880-26166-2	AH-01,0-6"	Total/NA	Solid	8260C	95488
880-26166-3	AH-02,0-6"	Total/NA	Solid	8260C	95488
880-26166-4	Duplicate-01	Total/NA	Solid	8260C	95488
880-26166-5	AH-03,0-6"	Total/NA	Solid	8260C	95488
MB 860-95456/8	Method Blank	Total/NA	Solid	8260C	
LCS 860-95456/3	Lab Control Sample	Total/NA	Solid	8260C	
LCS D 860-95456/4	Lab Control Sample Dup	Total/NA	Solid	8260C	
880-26100-A-1-B MS - DL	Matrix Spike	Total/NA	Solid	8260C	95157

Analysis Batch: 95482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26166-6	Trip Blank	Total/NA	Water	8260C	
MB 860-95482/7	Method Blank	Total/NA	Water	8260C	
LCS 860-95482/3	Lab Control Sample	Total/NA	Water	8260C	
LCS D 860-95482/4	Lab Control Sample Dup	Total/NA	Water	8260C	
860-45504-C-2 MS	Matrix Spike	Total/NA	Water	8260C	

Prep Batch: 95488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26166-1	AH-04,0-6"	Total/NA	Solid	5035	
880-26166-2	AH-01,0-6"	Total/NA	Solid	5035	
880-26166-3	AH-02,0-6"	Total/NA	Solid	5035	
880-26166-4	Duplicate-01	Total/NA	Solid	5035	
880-26166-5	AH-03,0-6"	Total/NA	Solid	5035	

Analysis Batch: 95944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26166-6	Trip Blank	Total/NA	Water	Total BTEX	

Analysis Batch: 96023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26166-1	AH-04,0-6"	Total/NA	Solid	Total BTEX	
880-26166-2	AH-01,0-6"	Total/NA	Solid	Total BTEX	
880-26166-3	AH-02,0-6"	Total/NA	Solid	Total BTEX	
880-26166-4	Duplicate-01	Total/NA	Solid	Total BTEX	
880-26166-5	AH-03,0-6"	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 49652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26166-1	AH-04,0-6"	Total/NA	Solid	8015NM Prep	
880-26166-2	AH-01,0-6"	Total/NA	Solid	8015NM Prep	
880-26166-3	AH-02,0-6"	Total/NA	Solid	8015NM Prep	
880-26166-4	Duplicate-01	Total/NA	Solid	8015NM Prep	
880-26166-5	AH-03,0-6"	Total/NA	Solid	8015NM Prep	

Eurofins Midland

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

GC Semi VOA (Continued)

Prep Batch: 49652 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-49652/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49652/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4371-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4371-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26166-1	AH-04,0-6"	Total/NA	Solid	8015B NM	49652
880-26166-2	AH-01,0-6"	Total/NA	Solid	8015B NM	49652
880-26166-3	AH-02,0-6"	Total/NA	Solid	8015B NM	49652
880-26166-4	Duplicate-01	Total/NA	Solid	8015B NM	49652
880-26166-5	AH-03,0-6"	Total/NA	Solid	8015B NM	49652
MB 880-49652/1-A	Method Blank	Total/NA	Solid	8015B NM	49652
LCS 880-49652/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49652
LCSD 880-49652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49652
890-4371-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	49652
890-4371-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	49652

Analysis Batch: 49832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26166-1	AH-04,0-6"	Total/NA	Solid	8015 NM	
880-26166-2	AH-01,0-6"	Total/NA	Solid	8015 NM	
880-26166-3	AH-02,0-6"	Total/NA	Solid	8015 NM	
880-26166-4	Duplicate-01	Total/NA	Solid	8015 NM	
880-26166-5	AH-03,0-6"	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 49885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26166-1	AH-04,0-6"	Soluble	Solid	DI Leach	
880-26166-2	AH-01,0-6"	Soluble	Solid	DI Leach	
880-26166-3	AH-02,0-6"	Soluble	Solid	DI Leach	
880-26166-4	Duplicate-01	Soluble	Solid	DI Leach	
880-26166-5	AH-03,0-6"	Soluble	Solid	DI Leach	
MB 880-49885/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49885/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49885/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-26164-A-7-D MS	Matrix Spike	Soluble	Solid	DI Leach	
880-26164-A-7-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 50029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26166-1	AH-04,0-6"	Soluble	Solid	300.0	49885
880-26166-2	AH-01,0-6"	Soluble	Solid	300.0	49885
880-26166-3	AH-02,0-6"	Soluble	Solid	300.0	49885
880-26166-4	Duplicate-01	Soluble	Solid	300.0	49885
880-26166-5	AH-03,0-6"	Soluble	Solid	300.0	49885
MB 880-49885/1-A	Method Blank	Soluble	Solid	300.0	49885
LCS 880-49885/2-A	Lab Control Sample	Soluble	Solid	300.0	49885

Eurofins Midland

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

HPLC/IC (Continued)

Analysis Batch: 50029 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-49885/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49885
880-26164-A-7-D MS	Matrix Spike	Soluble	Solid	300.0	49885
880-26164-A-7-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	49885

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- 12
- 13
- 14

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Client Sample ID: AH-04,0-6"

Lab Sample ID: 880-26166-1

Date Collected: 03/17/23 10:30

Matrix: Solid

Date Received: 03/21/23 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	95488	03/23/23 10:29	MTMG	EET HOU
Total/NA	Analysis	8260C		1	5 mL	5 mL	95456	03/23/23 15:23	MTMG	EET HOU
Total/NA	Analysis	Total BTEX		1			96023	03/27/23 15:04	MTMG	EET HOU
Total/NA	Analysis	8015 NM		1			49832	03/29/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49652	03/27/23 14:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49691	03/29/23 00:57	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	49885	03/29/23 16:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50029	03/31/23 14:42	SMC	EET MID

Client Sample ID: AH-01,0-6"

Lab Sample ID: 880-26166-2

Date Collected: 03/17/23 10:45

Matrix: Solid

Date Received: 03/21/23 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	95488	03/23/23 10:29	MTMG	EET HOU
Total/NA	Analysis	8260C		1	5 mL	5 mL	95456	03/23/23 15:44	MTMG	EET HOU
Total/NA	Analysis	Total BTEX		1			96023	03/27/23 15:04	MTMG	EET HOU
Total/NA	Analysis	8015 NM		1			49832	03/29/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49652	03/27/23 14:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49691	03/29/23 01:18	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	49885	03/29/23 16:22	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	50029	03/31/23 14:47	SMC	EET MID

Client Sample ID: AH-02,0-6"

Lab Sample ID: 880-26166-3

Date Collected: 03/17/23 11:00

Matrix: Solid

Date Received: 03/21/23 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	95488	03/23/23 10:29	MTMG	EET HOU
Total/NA	Analysis	8260C		1	5 mL	5 mL	95456	03/23/23 16:04	MTMG	EET HOU
Total/NA	Analysis	Total BTEX		1			96023	03/27/23 15:04	MTMG	EET HOU
Total/NA	Analysis	8015 NM		1			49832	03/29/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	49652	03/27/23 14:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49691	03/29/23 01:40	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	49885	03/29/23 16:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50029	03/31/23 14:52	SMC	EET MID

Client Sample ID: Duplicate-01

Lab Sample ID: 880-26166-4

Date Collected: 03/17/23 00:00

Matrix: Solid

Date Received: 03/21/23 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	95488	03/23/23 10:29	MTMG	EET HOU
Total/NA	Analysis	8260C		1	5 mL	5 mL	95456	03/23/23 16:25	MTMG	EET HOU
Total/NA	Analysis	Total BTEX		1			96023	03/27/23 15:04	MTMG	EET HOU

Eurofins Midland

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Client Sample ID: Duplicate-01

Lab Sample ID: 880-26166-4

Date Collected: 03/17/23 00:00

Matrix: Solid

Date Received: 03/21/23 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			49832	03/29/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	49652	03/27/23 14:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49691	03/29/23 02:02	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	49885	03/29/23 16:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50029	03/31/23 14:57	SMC	EET MID

Client Sample ID: AH-03,0-6"

Lab Sample ID: 880-26166-5

Date Collected: 03/17/23 11:20

Matrix: Solid

Date Received: 03/21/23 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	95488	03/23/23 10:29	MTMG	EET HOU
Total/NA	Analysis	8260C		1	5 mL	5 mL	95456	03/23/23 16:45	MTMG	EET HOU
Total/NA	Analysis	Total BTEX		1			96023	03/27/23 15:04	MTMG	EET HOU
Total/NA	Analysis	8015 NM		1			49832	03/29/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	49652	03/27/23 14:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49691	03/29/23 02:23	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	49885	03/29/23 16:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50029	03/31/23 15:02	SMC	EET MID

Client Sample ID: Trip Blank

Lab Sample ID: 880-26166-6

Date Collected: 03/17/23 00:00

Matrix: Water

Date Received: 03/21/23 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	95482	03/23/23 16:52	JBS	EET HOU
Total/NA	Analysis	Total BTEX		1			95944	03/27/23 10:03	JBS	EET HOU

Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH

Laboratory: Eurofins Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215-23-50	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Total BTEX		Solid	Total BTEX
Total BTEX		Water	Total BTEX

- 1
- 2
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Method Summary

Client: TRC Solutions, Inc.
 Project/Site: CR-222

Job ID: 880-26166-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET HOU
Total BTEX	Total BTEX Calculation	TAL SOP	EET HOU
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5030C	Purge and Trap	SW846	EET HOU
5035	Closed System Purge and Trap	SW846	EET HOU
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



Sample Summary

Client: TRC Solutions, Inc.
Project/Site: CR-222

Job ID: 880-26166-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-26166-1	AH-04,0-6"	Solid	03/17/23 10:30	03/21/23 10:40	0 - 6"
880-26166-2	AH-01,0-6"	Solid	03/17/23 10:45	03/21/23 10:40	0 - 6"
880-26166-3	AH-02,0-6"	Solid	03/17/23 11:00	03/21/23 10:40	0 - 6"
880-26166-4	Duplicate-01	Solid	03/17/23 00:00	03/21/23 10:40	0 - 6"
880-26166-5	AH-03,0-6"	Solid	03/17/23 11:20	03/21/23 10:40	0 - 6"
880-26166-6	Trip Blank	Water	03/17/23 00:00	03/21/23 10:40	0 - 6"

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Environment Testing
Xenro

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440 San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550 Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No:

201109

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Project Manager	JARED Stoffel	Bill to (if different)	
Company Name	TRC	Company Name	
Address	505 E Huntland Dr. #123A	Address	
City, State Zip	Austin, TX 78752	City, State Zip	
Phone	(432) 238-3003	Email	

Program	UST/PST	PRP	Brownfields	RRC	Superfund
State of Project					
Reporting Level	Level II	Level III	PST/UST	TRRP	Level IV
Deliverables	EDD	ADAPT	Other		

Project Name	CR-222 Park Station	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number	524161	Due Date			
Project Location	20 miles south of Hwy 82	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name	John P. O'Neil				
P.O.#					

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters			Sample Comments
							BTEX (8260)	TPH (8105)	Chloride (8300)	
AH-04, 0-6"	Soil	3/17/23	1030	0-6"	G	1	V	V	V	
AH-01, 0-6"			1045		G	1	V	V	V	
AH-02, 0-6"			1100		G	1	V	V	V	
Duplicate-01					G	1	V	V	V	
AH-03, 0-6"			1120		G	1	V	V	V	
TriPLICATE	AQ				AQ	2	V	V	V	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb M
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni

Note: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenro, its affiliates and subcontractors. It assigns standard terms of service. Eurofins Xenro will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond Eurofins Xenro's minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenro, but not analyzed. These terms will be enforced unless previously negotiated.



880-26166 Chain of Custody

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	3/20/23 HQ	<i>[Signature]</i>	<i>[Signature]</i>	3/21/23
					10:40

Eurofins Midland
1211 W Florida Ave
Midland, TX 79701
Phone: 432-704-5440

Chain of Custody Record



Environment Test'ng

Client Information (Sub Contract Lab)
 Client Contact: Shipping/Receiving
 Company: Eurofins Environment Testing South Central
 Address: 4145 Greenbriar Dr
 City: Stafford
 State: TX, Zip: 77477
 Phone: 281-240-4200(Tel)
 Email:
 Project #: CR-222
 Site:
 Sampler: Lab PM: Kramer, Jessica
 Phone: E-Mail: Jessica.Kramer@et.eurofins.com
 Accreditation Required (See note): NELAP Texas

Analysis Requested
 Due Date Requested: 3/27/2023
 TAT Requested (days):
 PO #:
 WO #:
 Project #: 88000306
 SOW#:
 Carrier Tracking No(s):
 State of Origin: Texas
 Job #: 880-26166-1
 Preservation Codes:
 A HCL
 B NaOH
 C Zn Acetate
 D Nitric Acid
 E H2SO4
 F MeOH
 G Amchlor
 H Ascorbic Acid
 I Ice
 J DI Water
 K EDTA
 L EDA
 Other
 M Hexane
 N None
 O AsNaO2
 P Na2O4S
 Q Na2SO3
 R Na2SO3
 S H2SO4
 T TSP Dodecalhydrate
 U Acetone
 V MCAA
 W pH 4.5
 Y Trizma
 Z other (specify)

Sample Identification	Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Other)	Field Filtered Sample (Yes or No)	Form MR/MSD (Yes or No)	826C/B035FP_Calc BTEX	Total BTEX (MD) Copy Analytes	8260C/8030C BTEX	Total Number of Containers	Special Instructions/Note:
AH-04,0-6'	(880-26166-1)	3/17/23	10:30 Central	Solid	Solid			X	X		1	
AH-01 0-6'	(880-26166-2)	3/17/23	10:45 Central	Solid	Solid			X	X		1	
AH-02 0-6'	(880-26166-3)	3/17/23	11:00 Central	Solid	Solid			X	X		1	
Duplicate-01	(880-26166-4)	3/17/23	Central	Solid	Solid			X	X		1	
AH-03,0-6'	(880-26166-5)	3/17/23	11:20 Central	Solid	Solid			X	X		1	
Trip Blank	(880-26166-6)	3/17/23	Central	Water	Water			X	X		2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested I II III IV Other (specify) _____
 Primary Deliverable Rank: 2
 Date: _____
 Relinquished by: *[Signature]*
 Relinquished by: **FedEx**
 Relinquished by: _____
 Date/Time: _____
 Date/Time: _____
 Date/Time: _____
 Method of Shipment: _____
 Received by: **FedEx**
 Received by: *[Signature]*
 Received by: _____
 Date/Time: _____
 Date/Time: 3/22/2023 10:11
 Date/Time: _____
 Company: _____
 Company: _____
 Company: _____
 Temp: IR ID:HOU-344
 Cooler Temperature(s) °C and Other Remarks: C/F:-0.2 2.0
 Corrected Temp: 1.8



Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 880-26166-1

Login Number: 26166

List Source: Eurofins Midland

List Number: 1

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 880-26166-1

Login Number: 26166

List Number: 2

Creator: Pena, Jesiel

List Source: Eurofins Houston

List Creation: 03/22/23 01:41 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jared Stoffel
TRC Solutions, Inc.
10 Desta Drive
Suite #130E
Midland, Texas 79705
Generated 5/2/2023 10:19:38 AM

JOB DESCRIPTION

HEP-CR 222

JOB NUMBER

880-27669-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701



Eurofins Midland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
5/2/2023 10:19:38 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: TRC Solutions, Inc.
Project/Site: HEP-CR 222

Laboratory Job ID: 880-27669-1

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Definitions/Glossary

Client: TRC Solutions, Inc.
Project/Site: HEP-CR 222

Job ID: 880-27669-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: TRC Solutions, Inc.
Project/Site: HEP-CR 222

Job ID: 880-27669-1

Job ID: 880-27669-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-27669-1

Receipt

The samples were received on 4/27/2023 8:44 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°C

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client Sample Results

Client: TRC Solutions, Inc.
Project/Site: HEP-CR 222

Job ID: 880-27669-1

Client Sample ID: AH-1A @ 1'

Lab Sample ID: 880-27669-1

Date Collected: 04/26/23 11:05

Matrix: Solid

Date Received: 04/27/23 08:44

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	95.9		5.03	mg/Kg			05/01/23 15:44	1

Client Sample ID: AH-1A @ 1.5'

Lab Sample ID: 880-27669-2

Date Collected: 04/26/23 11:15

Matrix: Solid

Date Received: 04/27/23 08:44

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	97.6		5.00	mg/Kg			05/01/23 16:08	1

Client Sample ID: AH-1A @ 2.0'

Lab Sample ID: 880-27669-3

Date Collected: 04/26/23 11:25

Matrix: Solid

Date Received: 04/27/23 08:44

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	80.5		5.01	mg/Kg			05/01/23 16:13	1

Client Sample ID: AH-5 @ 0-6"

Lab Sample ID: 880-27669-9

Date Collected: 04/26/23 12:45

Matrix: Solid

Date Received: 04/27/23 08:44

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	181		5.03	mg/Kg			05/01/23 16:42	1

Client Sample ID: Dup-1

Lab Sample ID: 880-27669-12

Date Collected: 04/26/23 00:00

Matrix: Solid

Date Received: 04/27/23 08:44

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	88.3		4.99	mg/Kg			05/01/23 16:46	1

QC Sample Results

Client: TRC Solutions, Inc.
Project/Site: HEP-CR 222

Job ID: 880-27669-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-52207/1-A
Matrix: Solid
Analysis Batch: 52288

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			05/01/23 15:29	1

Lab Sample ID: LCS 880-52207/2-A
Matrix: Solid
Analysis Batch: 52288

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	270.3		mg/Kg		108	90 - 110

Lab Sample ID: LCSD 880-52207/3-A
Matrix: Solid
Analysis Batch: 52288

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	263.1		mg/Kg		105	90 - 110	3	20

Lab Sample ID: 880-27669-1 MS
Matrix: Solid
Analysis Batch: 52288

Client Sample ID: AH-1A @ 1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	95.9		252	341.2		mg/Kg		98	90 - 110

Lab Sample ID: 880-27669-1 MSD
Matrix: Solid
Analysis Batch: 52288

Client Sample ID: AH-1A @ 1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	95.9		252	336.3		mg/Kg		96	90 - 110	1	20

QC Association Summary

Client: TRC Solutions, Inc.
Project/Site: HEP-CR 222

Job ID: 880-27669-1

HPLC/IC

Leach Batch: 52207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27669-1	AH-1A @ 1'	Soluble	Solid	DI Leach	
880-27669-2	AH-1A @ 1.5'	Soluble	Solid	DI Leach	
880-27669-3	AH-1A @ 2.0'	Soluble	Solid	DI Leach	
880-27669-9	AH-5 @ 0-6"	Soluble	Solid	DI Leach	
880-27669-12	Dup-1	Soluble	Solid	DI Leach	
MB 880-52207/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-52207/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-52207/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-27669-1 MS	AH-1A @ 1'	Soluble	Solid	DI Leach	
880-27669-1 MSD	AH-1A @ 1'	Soluble	Solid	DI Leach	

Analysis Batch: 52288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27669-1	AH-1A @ 1'	Soluble	Solid	300.0	52207
880-27669-2	AH-1A @ 1.5'	Soluble	Solid	300.0	52207
880-27669-3	AH-1A @ 2.0'	Soluble	Solid	300.0	52207
880-27669-9	AH-5 @ 0-6"	Soluble	Solid	300.0	52207
880-27669-12	Dup-1	Soluble	Solid	300.0	52207
MB 880-52207/1-A	Method Blank	Soluble	Solid	300.0	52207
LCS 880-52207/2-A	Lab Control Sample	Soluble	Solid	300.0	52207
LCSD 880-52207/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	52207
880-27669-1 MS	AH-1A @ 1'	Soluble	Solid	300.0	52207
880-27669-1 MSD	AH-1A @ 1'	Soluble	Solid	300.0	52207

Lab Chronicle

Client: TRC Solutions, Inc.
Project/Site: HEP-CR 222

Job ID: 880-27669-1

Client Sample ID: AH-1A @ 1'

Lab Sample ID: 880-27669-1

Date Collected: 04/26/23 11:05

Matrix: Solid

Date Received: 04/27/23 08:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	52207	05/01/23 09:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52288	05/01/23 15:44	SMC	EET MID

Client Sample ID: AH-1A @ 1.5'

Lab Sample ID: 880-27669-2

Date Collected: 04/26/23 11:15

Matrix: Solid

Date Received: 04/27/23 08:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	52207	05/01/23 09:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52288	05/01/23 16:08	SMC	EET MID

Client Sample ID: AH-1A @ 2.0'

Lab Sample ID: 880-27669-3

Date Collected: 04/26/23 11:25

Matrix: Solid

Date Received: 04/27/23 08:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	52207	05/01/23 09:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52288	05/01/23 16:13	SMC	EET MID

Client Sample ID: AH-5 @ 0-6"

Lab Sample ID: 880-27669-9

Date Collected: 04/26/23 12:45

Matrix: Solid

Date Received: 04/27/23 08:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	52207	05/01/23 09:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52288	05/01/23 16:42	SMC	EET MID

Client Sample ID: Dup-1

Lab Sample ID: 880-27669-12

Date Collected: 04/26/23 00:00

Matrix: Solid

Date Received: 04/27/23 08:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	52207	05/01/23 09:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52288	05/01/23 16:46	SMC	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: TRC Solutions, Inc.
Project/Site: HEP-CR 222

Job ID: 880-27669-1

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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Method Summary

Client: TRC Solutions, Inc.
Project/Site: HEP-CR 222

Job ID: 880-27669-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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Sample Summary

Client: TRC Solutions, Inc.
Project/Site: HEP-CR 222

Job ID: 880-27669-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-27669-1	AH-1A @ 1'	Solid	04/26/23 11:05	04/27/23 08:44
880-27669-2	AH-1A @ 1.5'	Solid	04/26/23 11:15	04/27/23 08:44
880-27669-3	AH-1A @ 2.0'	Solid	04/26/23 11:25	04/27/23 08:44
880-27669-9	AH-5 @ 0-6"	Solid	04/26/23 12:45	04/27/23 08:44
880-27669-12	Dup-1	Solid	04/26/23 00:00	04/27/23 08:44

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
 EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199



Work Order No: 270609

www.xenco.com Page 1 of 2

Project Manager: Jared Stoffel
 Company Name: TRE
 Address:
 City, State ZIP: 43.238.3003
 Phone: 43.238.3003
 Email: JSTOFFEL@TRE.COM

Bill to: (if different)
 Company Name:
 Address:
 City, State ZIP:
 Email:
 Turn Around
 Routine Rush
 Due Date:
 TAT starts the day received by the lab, if received by 4:30pm
 Sampler's Name: Russell Edwards
 P.O. #:
 Temp Blank: Yes No
 Thermometer ID: 110
 Correction Factor: -0.3
 Temperature Reading: 35
 Corrected Temperature: 3.7

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters		Preservative Codes	Sample Comments
							Pres. Code	Other		
AA-AE1	S	4.26.23	1105	1	G	1			DI Water: H ₂ O	
AA-MA0105			1115	1.5	G	1			Cool: Cool	
AA-1A0201			1125	2.0	G	1			HCl: HC	
AA-1A0205			1135	2.0	G	1			HNO ₃ : HN	
AA-1A0300			1145	3.0	G	1			H ₂ SO ₄ : H ₂	
AA-1A0305			1155	3.5	G	1			H ₃ PO ₄ : HP	
AA-1A0400			1205	4.0	G	1			NaHSO ₄ : NABIS	
AA-1A0405			1215	4.5	G	1			Na ₂ S ₂ O ₃ : NaSO ₃	
AA-5006			1245	0-6"	G	1			Zn Acetate+NaOH: Zn	
AA-6006			1300	0-6"	C	1			NaOH+Ascorbic Acid: SPC	



Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>[Signature]</u>	<u>[Signature]</u>	<u>4/27/23</u>	<u>[Signature]</u>	<u>[Signature]</u>	
<u>[Signature]</u>	<u>[Signature]</u>	<u>4/27/23</u>	<u>[Signature]</u>	<u>[Signature]</u>	



Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 880-27669-1

Login Number: 27669

List Number: 1

Creator: Teel, Brianna

List Source: Eurofins Midland

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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Analytical Data Review Checklist

Site: CR-222 Tank Station Location: Loco Hills, NM Client Name: HEP Project #: 498886	Laboratory: Eurofins (Midland, TX) Lab Report #: 880-16262-1	QA Reviewer: A. Eljuri/TRC Peer Reviewer: A. Bass/TRC Date: July 7, 2022
Analytical Method(s): BTEX by 8021B, TPH (GRO, DRO, ORO, and Total) by 8015B NM, Chloride by 300.0	Matrices Sampled: Soil, aqueous trip blank	Sample Collection Date(s): June 23, 2022
Sampling Objective(s): Collect confirmation soil samples at a release site.		
Sample IDs: Refer to data package sample summary.		

Review Item or Question	Y	N	NA	Comments
Sample Traceability / Chain of Custody				
1	X			Preservation of the trip blank with HCL was not noted on the COC.
2		X		In the sample summary, lab sample IDs 880-16262-1 through 880-16262-5 have an extra space before the "@" symbol in the client sample IDs. The client sample IDs mentioned in this document are correctly spaced.
3	X			
Sample Preservation and Integrity				
4	X		X	New Mexico regulations do not require VOC (BTEX and TPH-GRO) analyses for soil to be preserved in the field. Soil samples were collected as composite samples in one bulk jar for samples 880-16262-1 through 16262-6 after homogenizing the soil in a Ziploc bag. This is an acceptable collection method by the New Mexico regulations for BTEX and TPH-GRO analyses, so there is no impact to data usability.
	X			
	X			
	X	X		
5	X			
6		X		
7	X			
8			X	
Data Completeness				
9	X			The laboratory reported total TPH (solids) and total BTEX (solids and water) for methods 8015B NM and 8021B, respectively, which are not certified by the laboratory.
10	X			
11	X			
12	X			



Analytical Data Review Checklist

Review Item or Question		Y	N	NA	Comments
13	Were soil/sediment results reported on a dry weight basis?		X		The site is regulated under the New Mexico Oil Conservation District and reporting results on a dry weight basis is not a project requirement.
14	If requested, were detected results below the reporting limit (i.e., "J" values) reported?			X	
15	Did we receive the required deliverables (e.g., EDD, Level 4 data, laboratory certification, etc.) in the correct formats?	X			
Sensitivity					
16	Do the reporting limits meet the project specifications (e.g., QAPP or Work Plan)?	X			All non-detect results had reporting limits below project criteria.
17	Were dilutions performed? If so, note sample(s) and parameter(s) affected and the dilution factor(s).	X			Sample S-2 @ 0-6" for BTEX were diluted 20-fold. Sample S-4 @ 0-6" for benzene, toluene, and xylene isomers were diluted 20-fold and for ethylbenzene was diluted 100-fold. Sample S-5 @ 0-6" for benzene and xylene isomers were diluted 20-fold and for toluene and ethylbenzene were diluted 100-fold.
18	Did the laboratory provide an adequate explanation as to why dilutions were performed?		X		No explanation was provided for the dilutions of the analytes listed in Item 17. Reporting limits were below project objectives for the diluted non-detect results.
QC Results					
19	Were any target analytes detected in the method blanks? If yes, list contaminants, concentrations detected and associated samples.		X		
20	Does each analytical or preparation batch have its own method blank?	X			
21	Were any target analytes detected in the field blank(s) (e.g., trip blanks, equipment blanks)? If yes, list contaminants, concentrations detected and associated samples (or attach field blank results).		X		
22	Are there any potential false positive results based on questions 19 and/or 21?		X		
23	Are LCS/LCSD recoveries within QC limits? If no, list analytes affected, the LCS/LCSD recoveries and the affected samples.	X			
24	Does each analytical or preparation batch have its own LCS?	X			
25	Are LCS/LCSD RPDs within QC limits? If no, list analytes affected, the RPDs and the affected samples.		X		In analysis batch 28607, the RPDs for benzene (23%), toluene (21%), and o-xylene (21%) were above laboratory-defined limits (20%). Benzene, toluene, and o-xylene were not detected in the associated Trip Blank sample. Therefore, there is no impact to data usability due to the high RPD. It should be noted that the TPH LCS analyses were performed for TPH-GRO and TPH-DRO, and not TPH-ORO.
26	Are MS/MSD recoveries within QC limits? NOTE: If not performed on a project sample, evaluation is not required. If no, list analytes affected, the MS/MSD recoveries and the sample that was spiked.	X			MS/MSD analyses performed on sample S-1 @ 0-6" for chloride. Additional MS/MSDs were performed on non-project samples; these MS/MSD results were not evaluated during this review.



Analytical Data Review Checklist

Review Item or Question		Y	N	NA	Comments
27	Are MS/MSD RPDs within QC limits? NOTE: If not performed on a project sample, evaluation is not required. If no, list analytes affected, the RPDs and the sample that was spiked.	X			
28	Are laboratory duplicate RPDs within QC limits? NOTE: If not performed on a project sample, evaluation is not required. If no, list analytes affected, the RPDs and the sample that was prepared/analyzed in duplicate.			X	
29	Are field duplicate RPDs within QC limits? If no, list analytes affected, the RPDs and the associated samples. Field duplicate criteria for soil: RPDs <50% when both results >5x the reporting limit (RL). If one of both results < the RL, absolute difference must be <3x RL.	X			RPDs were calculated for duplicate pair Duplicate-01 and S-3 @ 0-6" and were within acceptable project specifications.
30	<u>ORGANIC ANALYSES ONLY:</u> Are surrogate recoveries within QC limits? If no, list samples, surrogate recoveries and analytes affected.		X		In samples S-2 @ 0-6", S-4 @ 0-6", and S-5 @ 0-6", the BTEX surrogate 4-bromofluorobenzene recovered above the laboratory-specified limits. Therefore, positive VOC results may be biased high as follows: BTEX and total BTEX in S-4 @ 0-6" and S-5 @ 0-6"; and toluene, ethylbenzene, xylene isomers, and total BTEX in S-2 @ 0-6". It should be noted that the surrogate results associated with the 100-fold diluted ethylbenzene analysis of sample S-4 @ 0-6" and the 100-fold diluted toluene and ethylbenzene analyses of sample S-5 @ 0-6" were not reported; the recoveries from the 20-fold diluted analyses of these samples were used for the evaluation of potential bias.
Laboratory Comments					
31	Did the case narrative describe any analytical anomalies (i.e., problems or unique occurrences)?		X		The seventh paragraph in the case narrative repeats information noted in the fourth paragraph. The information is correct.
32	Were any other potential data quality issues identified? If yes, describe issues.		X		
Do the Data Make Sense?					
33	Do any results look questionable?		X		
34	Has the EDD been compared with the lab report?	X			

Reference: United States Environmental Protection Agency (USEPA) - *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA, November 2020); *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, November 2020)

BTEX = Benzene, Toluene, Ethylbenzene, Total Xylenes (and isomers)

COC = Chain-of-Custody

DRO = Diesel Range Organics

EDD = Electronic Data Deliverable

GRO = Gasoline Range Organics

LCS/LCSD = Laboratory Control Sample / Laboratory Control Sample Duplicate

MS/MSD = Matrix Spike / Matrix Spike Duplicate

NELAP = National Environmental Laboratory Accreditation Program

ORO = Oil Range Organics

QAPP = Quality Assurance Project Plan

QC = Quality Control

%R = Percent Recovery

RL = Reporting Limit

RPD = Relative Percent Difference = $100\% \times |(A-B)/((A+B)/2)|$

TPH = Total Petroleum Hydrocarbon

VOC = Volatile Organic Compound

Additional Comments: None.



Analytical Data Review Checklist

Site: CR-222 Tank Station Location: Loco Hills, NM Client Name: HEP Project #: 524161	Laboratory: Eurofins (Midland, TX) and Eurofins (Houston, TX) Lab Report #: 880-26166-1, 880-27669-1	QA Reviewer: J. Daniels/TRC Peer Reviewer: E. Denly/TRC Date: May 5, 2023
Analytical Method(s): BTEX by SW846 8260C, TPH (GRO, DRO, ORO, and Total) by SW846 8015B_NM, Chloride by EPA 300.0	Matrices Sampled: Soil, aqueous trip blank	Sample Collection Date(s): March 17, 2023; April 26, 2023
Sampling Objective(s): Collect confirmation soil samples at a release site.		
Sample IDs: Refer to data package sample summary.		

Review Item or Question		Y	N	NA	Comments
Sample Traceability / Chain of Custody					
1	Were COC forms appropriately completed?	X			Preservation of the trip blank with HCl was not noted on the COC.
2	Did the laboratory report correct sample IDs?	X			
3	Do the laboratory reported sample collection dates and times agree with the COC forms?	X			
Sample Preservation and Integrity					
4	Did samples arrive at the laboratory appropriately preserved?			X	<u>880-26166-1:</u> New Mexico regulations do not require VOC (BTEX and TPH-GRO) analyses for soil to be preserved in the field.
	Was the cooler temperature between 0-6°C?	X			
	Was acid used for preservation when required (e.g., aqueous VOC and metals samples)?	X			
	Were soil/sediment VOC samples preserved in the field or collected in EnCore® samplers?		X		
5	Were samples received by the laboratory in an acceptable condition (i.e., no breakages, leaks, etc.)?	X			
6	Were any issues noted by the laboratory upon receipt?		X		
7	Were sample preparation and analysis holding time requirements met?	X			
8	<u>AIR ONLY:</u> Were canisters received with an acceptable vacuum?				X
	Were the RPDs between the initial and final canister flow controller calibrations <20?				
Data Completeness					
9	Are results reported for all analytical methods requested?	X			<u>880-26166-1:</u> The laboratory reported total TPH (solids) and total BTEX (solids and water) for methods 8015B NM and 8260C, respectively, which are not certified by the laboratory.
10	Are results reported for all samples submitted for analysis?	X			<u>880-27669-1:</u> Results are reported for two additional samples (AH-1A @ 1.5' and AH-1A @ 2.0') that were not requested on the COC but were designated as "hold."
11	Were the requested analytical methods used?	X			
12	Are results reported for all target analytes, but no additional analytes?	X			



Analytical Data Review Checklist

Review Item or Question		Y	N	NA	Comments
13	Were soil/sediment results reported on a dry weight basis?		X		The site is regulated under the New Mexico Oil Conservation District and reporting results on a dry weight basis is not a project requirement.
14	If requested, were detected results below the reporting limit (i.e., "J" values) reported?			X	
15	Did we receive the required deliverables (e.g., EDD, Level 4 data, laboratory certification, etc.) in the correct formats?	X			
Sensitivity					
16	Do the reporting limits meet the project specifications (e.g., QAPP or Work Plan)?	X			All non-detect results had reporting limits below project criteria.
17	Were dilutions performed? If so, note sample(s) and parameter(s) affected and the dilution factor(s).	X			<u>880-26166-1</u> : Sample AH-01,0-6" for chloride was diluted 5-fold.
18	Did the laboratory provide an adequate explanation as to why dilutions were performed?		X		No explanation was provided for the dilutions of the analytes listed in Item 17. Reporting limits were below project objectives for the diluted non-detect results.
QC Results					
19	Were any target analytes detected in the method blanks? If yes, list contaminants, concentrations detected and associated samples.		X		
20	Does each analytical or preparation batch have its own method blank?	X			
21	Were any target analytes detected in the field blank(s) (e.g., trip blanks, equipment blanks)? If yes, list contaminants, concentrations detected and associated samples (or attach field blank results).		X		
22	Are there any potential false positive results based on questions 19 and/or 21?		X		
23	Are LCS/LCSD recoveries within QC limits? If no, list analytes affected, the LCS/LCSD recoveries and the affected samples.	X			
24	Does each analytical or preparation batch have its own LCS?	X			
25	Are LCS/LCSD RPDs within QC limits? If no, list analytes affected, the RPDs and the affected samples.	X			<u>880-26166-1</u> : It should be noted that the TPH LCS analyses were performed for TPH-GRO and TPH-DRO, and not TPH-ORO.
26	Are MS/MSD recoveries within QC limits? NOTE: If not performed on a project sample, evaluation is not required. If no, list analytes affected, the MS/MSD recoveries and the sample that was spiked.	X			<u>880-26166-1</u> : MS/MSD analyses were not performed on samples from this sample set. Additional MS/MSDs were performed on non-project samples; these MS/MSD results were not evaluated during this review. <u>880-27669-1</u> : MS/MSD analysis were conducted on sample AH-1A @ 1' for chloride. The spike recoveries met the acceptance criteria.
27	Are MS/MSD RPDs within QC limits? NOTE: If not performed on a project sample, evaluation is not required. If no, list analytes affected, the RPDs and the sample that was spiked.	X			



Analytical Data Review Checklist

Review Item or Question		Y	N	NA	Comments
28	Are laboratory duplicate RPDs within QC limits? NOTE: If not performed on a project sample, evaluation is not required. If no, list analytes affected, the RPDs and the sample that was prepared/analyzed in duplicate.			X	
29	Are field duplicate RPDs within QC limits? If no, list analytes affected, the RPDs and the associated samples. Field duplicate criteria for soil: RPDs <50% when both results >5x the reporting limit (RL). If one of both results < the RL, absolute difference must be <3x RL.	X			880-26166-1: RPDs were calculated for duplicate pair Duplicate-01 and AH-02,0-6" and were within acceptable project specifications. 880-27669-1: RPDs were calculated for duplicate pair Dup-1 and AH-1A @ 1' and were within acceptable project specifications.
30	<u>ORGANIC ANALYSES ONLY:</u> Are surrogate recoveries within QC limits? If no, list samples, surrogate recoveries and analytes affected.	X			
Laboratory Comments					
31	Did the case narrative describe any analytical anomalies (i.e., problems or unique occurrences)?		X		
32	Were any other potential data quality issues identified? If yes, describe issues.		X		
Do the Data Make Sense?					
33	Do any results look questionable?		X		
34	Has the EDD been compared with the lab report?	X			

Reference: United States Environmental Protection Agency (USEPA) - *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA, November 2020); *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, November 2020)

BTEX = Benzene, Toluene, Ethylbenzene, Total Xylenes (and isomers)

COC = Chain-of-Custody

DRO = Diesel Range Organics

EDD = Electronic Data Deliverable

GRO = Gasoline Range Organics

LCS/LCSD = Laboratory Control Sample / Laboratory Control Sample Duplicate

MS/MSD = Matrix Spike / Matrix Spike Duplicate

NELAP = National Environmental Laboratory Accreditation Program

ORO = Oil Range Organics

QAPP = Quality Assurance Project Plan

QC = Quality Control

%R = Percent Recovery

RL = Reporting Limit

RPD = Relative Percent Difference = $100\% \times |(A-B)/((A+B)/2)|$

TPH = Total Petroleum Hydrocarbon

VOC = Volatile Organic Compound

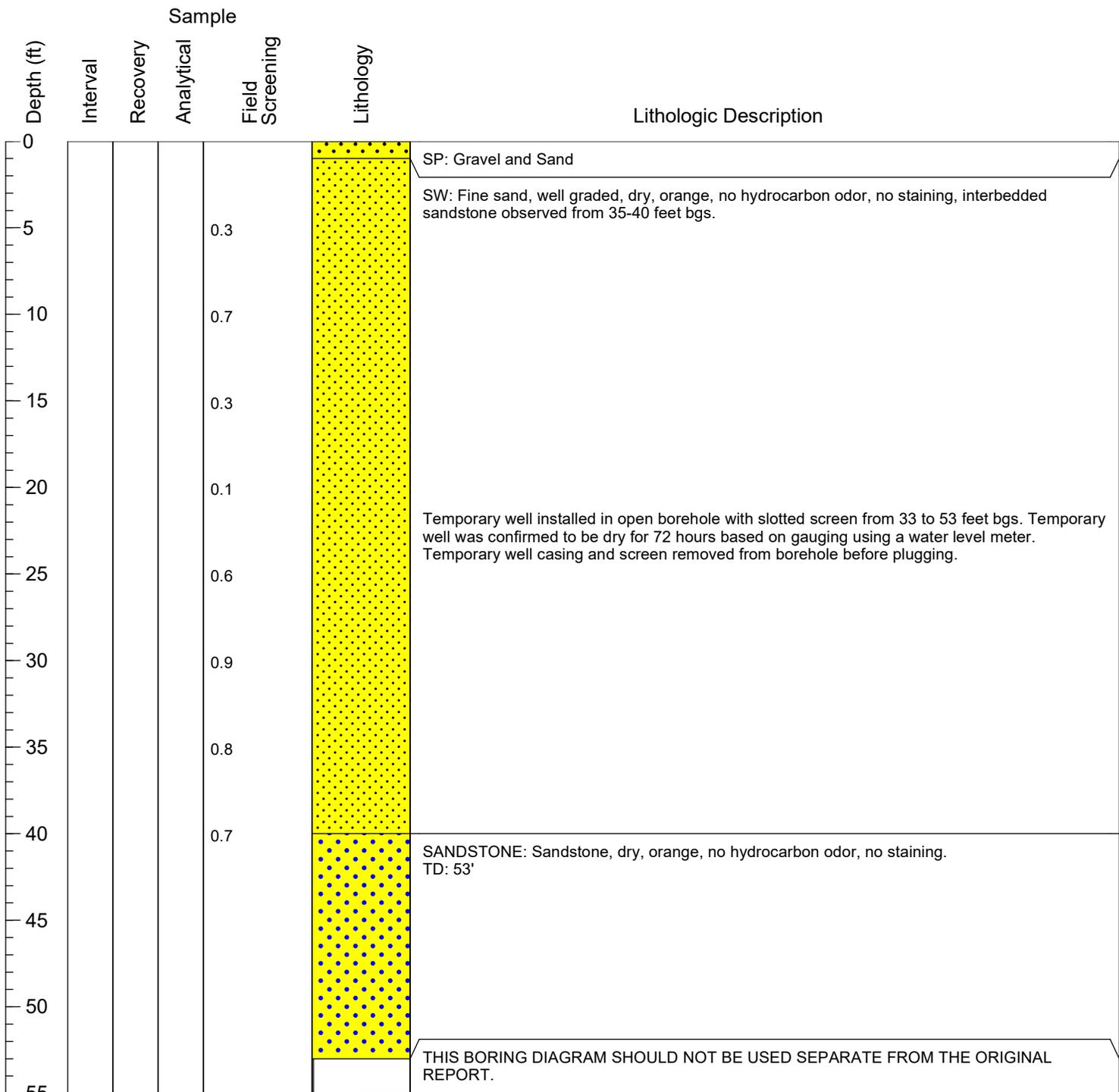
Additional Comments: None.



Appendix F:
Soil Boring Log for TMW-1

TRC BORING LOG TMW-1

Client: Holly Energy Partners		TRC Project #: 524161
Site: CR-222 Tank Station		Start Date: 03/14/2023
Address: Eddy County, NM		Finish Date: 03/14/2023
Project: Groundwater Depth Confirmation		Permit #: CP-1957-POD1
Drilling Company: Talon	Drilling Crew: Zech Moody	TRC Site Rep.: John O'Neal
Drilling Method: Air Rotary		TRC Reviewer: Jared Stoffel
Boring Diameter (in): 5.875"	Boring Depth (ft bgs): 53'	Coord. Sys.: WGS 84
Sampling Method: Cuttings		Longitude: -103.884799
Blow Count Method: N/A	Grout: Bentonite	Latitude: 32.772395
Field Screening Parameter: Volatile Organic Compounds		Elevation Datum: NA
Meter: MiniRae 3000	Units: ppm	Ground Elevation (ft): NM





**Appendix G:
References**



REFERENCES

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Google and their Data Partners, 2020. Aerial photography of the Site accessible through the Google Earth Pro application (<https://www.google.com/earth/>).

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New Mexico Bureau of Geology and Mineral Resources (NMBGMR), 2022. NMBGMR Interactive Map, NMBGMR and New Mexico Tech (published in cooperation with the USGS), accessible at <https://maps.nmt.edu/>.

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NMNRD, 2023. Email Communications from NMNRD to TRC, “RE: Field Activities and Soil Sampling Notification – CR-222 Site - nAPP2215951311”. Dated March 13, 2023.

NMNRD, 2022. Email Communication from NMNRD to TRC, “RE: CR-222 Sampling Notification - nAPP2215951311 CR-222”. Dated April 28, 2023.



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TRC, 2022. *Remediation Summary and Site Closure Request*, TRC, September 1, 2022.

TRC, 2023. Email Communication from TRC to NMNRD, "Extension Request for nAPP2215951311 CR-222". Dated March 1, 2023.

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USGS, 1952 (reprinted 1985). Ground-Water Report 3, Geology and Ground-Water Resources of Eddy County, New Mexico, by G. E. Hendrickson and R. S. Jones, United States Geological Survey, dated 1952, reprinted 1985.

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720
District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720
District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 220327

CONDITIONS

Operator: HOLLY ENERGY PARTNERS - OPERATING, LP 1602 W. Main St. Artesia, NM 88210	OGRID: 282505
	Action Number: 220327
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	Deferral is approved only for the specific points requested. The deferral is granted so long as the contamination is fully delineated and does not cause an imminent risk to human health, the environment, or ground water. Final remediation and reclamation shall take place in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the site is no longer being used for oil and gas operations.	5/25/2023