Incident ID	nAPP2123134861/
District RP	nAPP2201046595/
Facility ID	nAPP2216545859
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?	70.12 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ 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)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ 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?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ 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.

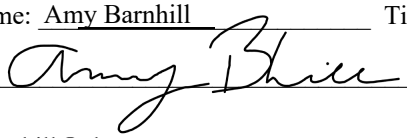
Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2123134861/
District RP	nAPP2201046595/
Facility ID	nAPP2216545859
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: Amy Barnhill Title: Environmental Advisor

Signature:  Date: 8-23-23

email: ABarnhill@chevron.com Telephone:432-687-7723

OCD Only

Received by: Shelly Wells Date: 8/24/2023

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2123134861/
District RP	nAPP2201046595/
Facility ID	nAPP2216545859
Application ID	

Remediation Plan

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

- [x] Detailed description of proposed remediation technique
- [x] Scaled sitemap with GPS coordinates showing delineation points
- [x] Estimated volume of material to be remediated
- [x] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [x] 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.***

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

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: Amy Barnhill Title: Environmental Advisor

Signature: Amy Barnhill Date: 8-23-23

email: ABarnhill@chevron.com Telephone: 432-687-7723

OCD Only

Received by: Shelly Wells Date: 8/24/2023

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

Signature: Nelson Velez Date: 12/05/2023

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2123134861/
District RP	nAPP2201046595/
Facility ID	nAPP2216545859
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.***

[X] A scaled site and sampling diagram as described in 19.15.29.11 NMAC

[X] 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)

[X] Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

[X] 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: Amy Barnhill Title: Environmental Advisor

Signature: Amy Barnhill Date: 8-23-23

email: ABarnhill@chevron.com Telephone: 432-687-7723

OCD Only

Received by: Shelly Wells Date: 8/24/2023

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: _____

Tracking Number: nAPP2123134861 / nAPP2201046595 / nAPP2216545859
Closure Report
Salado Draw 19 CTB Waterline / Manifold / PW Release
Crude Oil and/or Produced Water Releases
Lea County, New Mexico

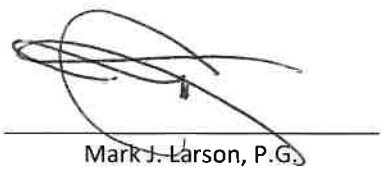
Latitude: N 32.034993°
Longitude: W -103.616822°

LAI Project No. 22-0105-01 / 22-0105-04 / 22-0105-09

August 10, 2023

Prepared for:
Chevron USA Inc.
6301 Deauville Blvd.
Midland, Texas 79706

Prepared by:
Larson & Associates, Inc.
507 North Marienfeld Street, Suite 202
Midland, Texas 79701



Mark J. Larson, P.G.
Certified Professional Geologist #10490

Robert Nelson
Project Manager

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Appendix A Chevron C-141's and Spill Calculations
Appendix B Karst Risk Potential
Appendix C Soil Boring Log
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1.0 INTRODUCTION

Larson & Associates, Inc. (LAI), has prepared this closure report on behalf of Chevron USA Inc. (Chevron) for submittal to the New Mexico Oil Conservation Division (NMOCD) District I for a three (3) crude oil and/or produced water releases (Waterline, Manifold, and Produced Water Release) at the Salado Draw 19 CTB (Site) located in Unit D (Lot 1), Section 19, Township 26 South, Range 33 East in Lea County, New Mexico. The geodetic position is North 32.034993° and West -103.616822°. Figure 1 presents a topographic map. Figure 2 presents an aerial map for the three (3) spill locations.

1.1 Background

The release on the waterline was initially discovered on August 11, 2021, due to a hole in the water line on backbone of train 2. Chevron reported that 0.54 barrels (bbls) of crude oil and 5.03 bbls of produced water were released, with 0.54 bbls of crude oil and 2 bbls of produced water recovered. The affected area measures approximately 1,154 square feet. The initial C-141 was submitted to NMOCD District I on August 23, 2021. The waterline release was assigned incident number nAPP2123134861.

The release on the manifold was discovered on December 28, 2021, due to a hole in an 8-inch balon ball valve. Chevron reported that 14.03 bbls of produced water was released, with 7 bbls recovered. The affected area measures approximately 1,246 square feet. The initial C-141 was submitted to NMOCD District I on January 10, 2022. The manifold release was assigned incident number nAPP2201046595.

The produced water release was initially discovered on June 2, 2022, due to a pinhole leak along the water line due to possible corrosion. Chevron reported that 6 bbls of produced water was released, with no recovery. The affected area measures approximately 1,952 square feet. The initial C-141 was submitted to the NMOCD District I on June 14, 2022. The produced water release was assigned incident number nAPP2216545859. Appendix A presents the initial C-141's and Chevron spill calculations for the three (3) releases.

1.2 Physical Setting

The physical setting is as follows:

- The surface elevation is approximately 3,174 feet above mean sea level (msl).
- The surface elevation gradually decreases to the southwest.
- There are no surface water features within 1,000 feet of the Site.
- Karst data provided by the USGS describes the Site as "Medium Risk" potential.
- The soils are designated as Pyote soils and Dune land, consisting of 0 to 30 inches fine sand, underlain by 30 to 60 inches of fine sandy loam.
- Surface geology is Quaternary deposits (Holocene) sand and silt, locally includes cover sand.
- Groundwater occurs at 70.12 feet below ground surface (bgs) based on depth to groundwater measurements taken 72 hours after installing a boring (SB-1) on April 28, 2020, approximately 0.31 mile or 1,809 feet southeast from the Site. The geodetic position for the groundwater bore is North 32.0329056° and West -103.6140528°.

Appendix B presents USGS data depicting karst risk potential. Appendix C presents the soil boring log. Figure 3 presents an aerial map showing the soil boring location.

1.3 Remediation Standards

The following remediation standards are based on closure criteria for soils impacted by a release as presented in Table 1 of 19.15.29 NMAC:

- Benzene 10 mg/Kg
- BTEX 50 mg/Kg
- TPH 2,500 mg/Kg
- Chloride 10,000 mg/Kg

Further, 19.15.29.13 NMAC (Restoration, Reclamation and Re-Vegetation) requires the operator to restore the impacted surface area that existed prior to the release or their final land use.

2.0 DELINEATION

The first release (nAPP2123134861) was fully delineated between February 1, 2022, and March 9, 2022. Additionally, the second release (nAPP2201046595) was fully delineated between February 1, 2022, and May 10, 2022. The delineation for both releases was reported to the NMOCD in the document titled "Tracking Number: nAPP2123134861 and nAPP2201046595, Delineation Report and Remediation Plan, Salado Draw 19 CTB Waterline & Manifold, Produced Water Releases, Lea County, New Mexico, June 9, 2022" and recommended the following remediation:

- Waterline Release: Excavate soil from an area measuring approximately 429 square feet encompassing S-3 to a depth of 1-foot bgs.
- Manifold Release: Excavate soil from an area measuring approximately 216 square feet encompassing S-4 to a depth of 1-foot bgs.
- Manifold Release: Excavate soil from an area measuring approximately 302 square feet encompassing S-5 and S-8 to a depth of 1.5 feet bgs.
- Manifold Release: Excavate soil from an area measuring approximately 951 square feet encompassing S-2, S-3, and S-5 to a depth of 4.1 feet bgs.
- Collect five (5) point composite bottom and sidewall confirmation soil samples every 200 square feet and analyze for BTEX, TPH and chloride.
- Backfill excavation with clean caliche on the pad at the waterline release and topsoil in the right of way at the manifold release assuming achievement of OCD remediation levels.
- Prepare report with photographs for submittal to OCD District I.

The NMOCD approved the remediation plan on August 11, 2022.

The third release (nAPP2216545859) was fully delineated on June 22, 2022. The delineation was reported to the NMOCD in the document titled "Tracking Number: nAPP2216545859, Delineation Report and Remediation Plan, Salado Draw 19 Central Tank Battery, Produced Water Release, Lea County, New Mexico, September 19, 2022" and recommended the following remediation:

- Excavate soil from an area measuring approximately 61 square feet encompassing S-4 and to a depth of 1-foot bgs.

- Collect five (5) point composite bottom and sidewall confirmation soil samples every 200 square feet and analyze for BTEX, TPH and chloride.
- Backfill excavation with clean caliche on the pad assuming achievement of NMOCD remediation levels.
- Prepare report with photographs for submittal to NMOCD District I
- This remediation will be performed simultaneously with two (2) additional releases (nAPP2123134861 & nAPP2201046595) that occurred at the Site.

The NMOCD approved the remediation plan on September 26, 2022, and stated "*Going forward, please include the latitude and longitude of the dtw boring in report*". Figure 4a, 4b, and 4c presents Appendix D presents the NMOCD communications.

3.0 REMEDIATION

During April 2023, SDR Enterprises (SDR), under supervision from LAI personnel, began excavating soil from the first (nAPP2123134861) and third (nAPP2216545859) releases. Soil was excavated within the first release to a depth of approximately 1-foot bgs encompassing sample location S-3. Additionally, soil was excavated within the third release to a maximum depth of approximately 4.1 feet bgs., LAI personnel field tested currently with excavation activities to determine if further excavation was necessary according to the NMOCD delineation report and remediation plan. Excavated soil was stockpiled on a liner at the SD 19 CTB Site prior to being hauled to disposal at the Milestone Environmental Services Disposal Facility, northeast of Orla, Texas. On April 28, 2023, LAI personnel collected four (4) bottom and one (1) sidewall confirmation soil samples from the first release excavation area and collected two (2) bottom and two (2) sidewalls from the third release excavation area.

During April 2023, Warrior Technologies, LLC (Warrior), under supervision from LAI personnel, hydrovac excavated soil within the second release (nAPP2201046595). Soil was excavated to 1-foot bgs encompassing sample location S-4, 1.5 feet bgs encompassing sample locations S-5 and S-8, and 4.1 feet bgs encompassing sample locations S-2, S-3, and S-5. Hydrovac media (i.e., soil, rock, and water) was contained in vac boxes prior to being hauled to the Milestone Environmental Services Disposal Facility. Warrior also hydrovac excavated soil adjacent to production equipment within the third release (nAPP2216545859). LAI personnel collected eight (8) bottom and four (4) sidewall confirmation soil samples within the second release and one (1) bottom and one (1) sidewall confirmation soil sample within the third release.

The soil samples were delivered under chain of custody and preservation to the Eurofins – Xenco Laboratories (Xenco) in Midland, Texas. The laboratory analyzed all the confirmation soil samples for BTEX, TPH, and chloride by EPA SW-846 Methods 8021B, 8015M, and 300.0E, respectively. The laboratory reported the following results:

- Benzene, BTEX, TPH, and chloride within the first release (nAPP2123134861) were reported below the NMOCD remediation standards in all confirmation composite soil samples.
- Benzene, BTEX, and TPH within the second release (nAPP2201046595) were reported below the NMOCD remediation standards in all confirmation composite soil samples. Chloride reported above the NMOCD remediation standards of 600 mg/Kg from bottom samples C-1, C-3, C-4, C-7, and C-8 and sidewall samples C-2, C-10, C-11, and C-12.
- Benzene, BTEX, and TPH within the third release (nAPP2216545859) were reported below the NMOCD remediation standards in all confirmation composite soil samples. Chloride reported above the NMOCD remediation standards of 600 mg/Kg from sidewall sample C-6.

During July 2023, Warrior and SDR personnel excavated additional soil encompassing sample locations within the second release (nAPP2201046595) in 1-foot increments, where LAI personnel field tested concurrently with excavation activities to determine if further excavation was necessary. Subsequent laboratory analysis reported benzene, BTEX, TPH, and chloride below the NMOCD remediation standards in all confirmation soil samples listed in Table 1 of 19.15.29 NMAC. Table 2a, 2b, and 2c present the confirmation and backfill analytical data summary for nAPP2123134861, nAPP2201046595, and nAPP2216545859, respectively. Figure 5a, 5b, and 5c present the soil excavation areas and confirmation sample locations for nAPP2123134861, nAPP2201046595, and nAPP2216545859, respectively.

On June 12, 2023, SDR backfilled the first (nAPP2123134861) and third (nAPP2216545859) release areas on the pad with clean caliche. On August 1, 2023, SDR backfilled the second release (nAPP2201046595) area within the Right of Way (ROW) with clean topsoil. LAI personnel collected four (4) composite soil samples (BF-1, BF-2, BF-4, and BF-5) (sample ID BF-3 was not used) of clean topsoil and caliche from a nearby burrow pit. Xenco analyzed the samples for BTEX, TPH, and chloride. Benzene, BTEX, and TPH were below the method reporting limits (RL's) and chloride was less than 600 mg/kg. On August 4, 2023, LAI personnel seeded the excavation area within the second release (nAPP2201046595) with BLM mix #2. Appendix E presents the laboratory reports. Appendix F presents the photographic documentation.

4.0 CLOSURE/DEFERRAL REQUEST

Chevron requests no further action for nAPP2123134861.

Chevron requests a deferral for the second release (nAPP2201046595) where chloride at sidewall sample location C-2coincides with supports for the aboveground flow lines. Additionally, Chevron requests a deferral for the third release (nAPP2216545859) where TPH and chloride at sidewall sample location C-6 coincides with aboveground production equipment. Further excavation of these areas risks jeopardizing the integrity of the flow lines and production equipment resulting in additional environmental impacts. Figure 6 presents an area map showing the deferral areas.

Tables

Table 1a
Soil Sample Analytical Data Summary
SD 19 CTB - WaterlineRelease (nAPP2123134861)
Lea County, New Mexico
32° 02' 04.86805" North, 103° 37' 01.11924" West

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C10 (mg/Kg)	C10 - C28 (mg/Kg)	C28 - C36 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Remediation Level:				**10**	**50**				**100/2,500**	**600/10,000**
S-1	0.5	2/1/2022	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	30.4
	1	2/1/2022	In-Situ	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	19.0
S-2	0.5	2/1/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	149
	1	2/1/2022	In-Situ	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	186
S-3	0.5	2/1/2022	In-Situ	<0.00199	<0.00398	<50.0	2,160	<50.0	**2,160**	42.2
	1	2/1/2022	In-Situ	<0.00199	0.0370	<49.9	681	<49.9	**681**	44.6
	1	3/9/2022	In-Situ	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	11.9
	3	3/9/2022	In-Situ	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<4.98
	5	3/9/2022	In-Situ	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<5.00
	10	3/9/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	5.51
S-4	0.5	2/1/2022	In-Situ	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	17.5
	1	2/1/2022	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	23.7
S-5	0.5	2/1/2022	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	23.7
S-6	0.5	2/1/2022	In-Situ	<0.00202	<0.00403	<50.0	54.3	<50.0	54.3	133
S-7	0.5	2/1/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	231
S-8	0.5	2/1/2022	In-Situ	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	278

Notes: Analysis performed by Xenco Laboratories (Xenco) in Midland, Texas by EPA SW-846 8021B (BTEX), 8015M (TPH), and 300E (Chloride)

Table 1a

Soil Sample Analytical Data Summary

SD 19 CTB - WaterlineRelease (nAPP2123134861)

Lea County, New Mexico

32° 02' 04.86805" North, 103° 37' 01.11924" West

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C10 (mg/Kg)	C10 - C28 (mg/Kg)	C28 - C36 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Remediation Level:				**10**	**50**				**100/2,500**	**600/10,000**

Depth in feet below ground surface (bgs)

mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

<: denotes concentration less than analytical method reporting limit

Bold and Highlighted exceeds OCD remediation action limits

Table 2a
Confirmation Soil Sample Analytical Data Summary
Chevron - SD 19 CTB Waterline
Lea County, New Mexico
North 32° 02' 04.86805", West 103° 37' 01.11924"

Sample ID	Location	Depth (feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Remediation Level:					**10**	**50**				**100/2500**	**600/10,000**
C-1	Bottom	1	4/28/2023	In-Situ	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	72.7
C-2	Bottom	1	4/28/2023	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	78.7
C-3	Bottom	1	4/28/2023	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	144
C-4	Bottom	1	4/28/2023	In-Situ	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	130
C-5	Sidewall	0 - 1	4/28/2023	In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	145
Backfill-2	--	--	5/11/2023	In-Situ	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	364
Backfill-4	--	--	5/11/2023	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	220
Backfill-5	--	--	5/11/2023	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	183

Notes: analysis performed by Xenco Laboratories (Xenco), Midland, Texas and Carlsbad, New Mexico by EPA SW-846 Methods 8021B (BTEX) and 8015M (TPH), and Method 300 (chloride)

Depth in feet below ground surface (bgs)

mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

Bold and Highlighted Denotes Conetrations Above OCD Closure Criteria

Table 1b
Soil Sample Analytical Data Summary
SD 19 CTB - Manifold Release (nAPP2201046595)
Lea County, New Mexico
32° 02' 04.33" North, 103° 37' 02.69" West

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C10 (mg/Kg)	C10 - C28 (mg/Kg)	C28 - C36 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Remediation Level:				**10**	**50**				**100/2,500**	**600/10,000**
S-1	0.5	2/1/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	53.6
	1	2/1/2022	In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	78.1
S-2	0.5	2/1/2022	In-Situ	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	**4,190**
	1	2/1/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**953**
	1	3/8/2022	In-Situ	<0.0200	<0.00400	<49.8	<49.8	<49.8	<49.8	**5,960**
	2	3/8/2022	In-Situ	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	**4,350**
	5	3/8/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**3,420**
	10	3/8/2022	In-Situ	<0.00200	<0.00398	<49.8	<49.8	<49.8	<49.8	13.7
S-3	0.5	2/1/2022	In-Situ	<0.00200	<0.00401	<50.0	55.8	<50.0	55.8	**7,210**
	1	2/1/2022	In-Situ	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	**4,270**
	1	3/8/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	**7,370**
	3	3/8/2022	In-Situ	<0.00200	<0.00399	<50.0	185	<50.0	**185**	**20,700**
	5	3/8/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**4,850**
	10	3/8/2022	In-Situ	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	**3,560**
	14	3/8/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**881**
	15	5/10/2022	In-Situ	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	233
	20	5/10/2022	In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	72.0
	25	5/10/2022	In-Situ	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	78.0
S-4	0.5	2/1/2022	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	**2,270**
	1	2/1/2022	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	123
S-5	0.5	2/1/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**3,240**

Table 1b
Soil Sample Analytical Data Summary
SD 19 CTB - Manifold Release (nAPP2201046595)
Lea County, New Mexico
32° 02' 04.33" North, 103° 37' 02.69" West

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C10 (mg/Kg)	C10 - C28 (mg/Kg)	C28 - C36 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Remediation Level:				**10**	**50**				**100/2,500**	**600/10,000**
	1	2/1/2022	In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	**2,210**
	1	3/8/2022	In-Situ	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	111
	3	3/8/2022	In-Situ	<0.00202	<0.0404	<50.0	<50.0	<50.0	<50.0	158
	5	3/8/2022	In-Situ	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<4.97
	10	3/8/2022	In-Situ	<0.00200	<0.0399	<49.9	<49.9	<49.9	<49.9	11.2
S-6	0.5	2/1/2022	In-Situ	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	126
	1	2/1/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	127
S-7	0.5	2/1/2022	In-Situ	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	116
	1	2/1/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	83.3
S-8	0.5	2/1/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	**942**
	1	2/1/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	**855**
	1	3/8/2022	In-Situ	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	**822**
	3	3/8/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	37.6
	5	3/8/2022	In-Situ	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	16.5
	10	3/8/2022	In-Situ	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	5.26
S-9	0.5	3/8/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	327
	1	3/8/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	224
S-10	0.5	3/8/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	349
	1	3/8/2022	In-Situ	<0.00200	<0.00399	<50.0	<50.0	89.1	89.1	130

Table 1b
Soil Sample Analytical Data Summary
SD 19 CTB - Manifold Release (nAPP2201046595)
Lea County, New Mexico
32° 02' 04.33" North, 103° 37' 02.69" West

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C10 (mg/Kg)	C10 - C28 (mg/Kg)	C28 - C36 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Remediation Level:				**10**	**50**				**100/2,500**	**600/10,000**

Notes: Analysis performed by Xenco Laboratories (Xenco) in Midland, Texas by EPA SW-846 8021B (BTEX), 8015M (TPH), and 300E (Chloride)
Depth in feet below ground surface (bgs)
mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)
<: denotes concentration less than analytical method reporting limit
Bold and Highlighted exceeds OCD remediation action limits

Table 2b
Confirmation Soil Sample Analytical Data Summary
SD 19 CTB Manifold
Lea County, New Mexico
32° 02' 04.33"N, 103° 37' 02.69"W

Sample ID	Location	Depth (feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Closure Criteria:					***10***	***50***				***100/2,500***	***600/10,000***
C-1	Bottom	1	05/09/2023	Excavated	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**2,850**
		4.1	07/20/2023	In-Situ	<0.00398	<0.00199	<50.1	<50.1	<50.1	<50.1	1,290
C-2*	Sidewall	0-4.1	05/09/2023	In-Situ	<0.00200	0.0104	<49.9	<49.9	<49.9	<49.9	**10,000**
C-3	Bottom	1	05/09/2023	Excavated	<0.00199	0.0149	<49.9	<49.9	<49.9	<49.9	**4,250**
		4.1	07/20/2023	In-Situ	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	1,830
C-4	Bottom	1	05/09/2023	Excavated	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	**6,480**
		4.1	07/20/2023	In-Situ	<0.00201	<0.00402	<49.7	<49.7	<49.7	<49.7	536
C-5	Bottom	4.1	05/09/2023	In-Situ	<0.00202	<0.00404	<49.8	<49.8	<49.8	<49.8	484
C-6	Bottom	4.1	05/09/2023	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	801
C-7	Bottom	1.5	05/09/2023	Excavated	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**1,070**
		4.1	07/21/2023	In-Situ	<0.00202	<0.00403	<50.2	<50.2	<50.2	<50.2	997
C-8	Bottom	1.5	05/09/2023	Excavated	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	**1,410**
		4.1	07/21/2023	In-Situ	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	576
C-9	Bottom	4.1	05/09/2023	In-Situ	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	1,060
C-10	Sidewall	0-4.1	05/09/2023	Excavated	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	**1,670**
			07/21/2023	In-Situ	<0.00202	<0.00403	<50.5	<50.5	<50.5	<50.5	535
C-11	Sidewall	0-4.1	05/09/2023	Excavated	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	**748**
			07/21/2023	In-Situ	<0.00200	<0.00400	<50.3	<50.3	<50.3	<50.3	130
C-12	Sidewall	0-1	05/09/2023	Excavated	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	**1,440**
		0 - 4.1	07/21/2023	In-Situ	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	118
BF-1	--	--	07/25/2023	In-Situ	<0.00202	<0.00403	<50.3	<50.3	<50.3	<50.3	79.0

Notes:
analysis performed by Eurofins-Xenco (Xenco), in Midland, Texas by EPA SW-846 Methods 8021B (BTEX) and 8015M (TPH), and EPA Method 300 (chloride)
mg/Kg: milligrams per kilogram; equivalent to parts per million (ppm)
<: indicates that parameter concentration is below method analytical reporting limit

Table 2b
Confirmation Soil Sample Analytical Data Summary
SD 19 CTB Manifold
Lea County, New Mexico
32° 02' 04.33"N, 103° 37' 02.69"W

Sample ID	Location	Depth (feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Closure Criteria:					***10***	***50***				***100/2,500***	***600/10,000***

Depth reported in feet below ground surface (bgs)

** - Indicates sample locations around production equipment where a deferral is reqeusted*

Bold and Highlighted indicates parameter concentration is above NMOCD closure criteria

Table 1c
Soil Sample Analytical Data Summary
SD 19 CTB Produced Water Release
Lea County, New Mexico
32° 02' 04.93676" North, 103° 37' 00.76533" West

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C10 (mg/Kg)	C10 - C28 (mg/Kg)	C28 - C36 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Remediation Level:				**10**	**50**				**100/2,500**	**600/10,000**
S-1	0.5	6/22/2022	In-Situ	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	69.2
	1	6/22/2022	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	58.8
S-2	0.5	6/22/2022	In-Situ	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	95.2
	1	6/22/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	58.1
S-3	0.5	6/22/2022	In-Situ	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	31.6
	1	6/22/2022	In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	27.1
S-4	0.5	6/22/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	**919**
	1	6/22/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	199
S-5	0.5	6/22/2022	In-Situ	<0.00202	<0.00404	<49.8	<49.8	<49.8	<49.8	0.114
S-6	0.5	6/22/2022	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	30.0
S-7	0.5	6/22/2022	In-Situ	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	218
S-8	0.5	6/22/2022	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	48.1

Notes: Analysis performed by Xenco Laboratories (Xenco) in Midland, Texas by EPA SW-846 8021B (BTEX), 8015M (TPH), and 300E (Chloride)
Depth in feet below ground surface (bgs)
mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)
<: denotes concentration less than analytical method reporting limit
Bold and Highlighted exceeds OCD remediation action limits

Table 2c
Confirmation Soil Sample Analytical Data Summary
Chevron - SD 19 CTB Produced Water Release
Lea County, New Mexico
North 32° 02' 04.93676", West 103° 37' 00.76533"

Sample ID	Location	Depth (feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Remediation Level:					**10**	**50**				**100/2500**	**600/10,000**
C-1	Bottom	4.1	4/28/2023	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	121
C-2	Bottom	2	4/28/2023	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	126
C-3	Sidewall	0 - 4.1	4/28/2023	In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	445
C-4	Sidewall	0 - 2	4/28/2023	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	197
C-5	Bottom	1	5/31/2023	In-Situ	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	261
C-6*	Sidewall	0 - 1	5/31/2023	In-Situ	<0.00202	<0.00404	<50.0	444	<50.0	**444**	**7,070**
Backfill-2	--	--	5/11/2023	In-Situ	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	364
Backfill-4	--	--	5/11/2023	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	220
Backfill-5	--	--	5/11/2023	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	183

Notes: analysis performed by Xenco Laboratories (Xenco), Midland, Texas and Carlsbad, New Mexico by EPA SW-846 Methods 8021B (BTEX) and 8015M (TPH), and Method 300 (chloride)

Depth in feet below ground surface (bgs)

mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

* - Sidewall sample location located adjacent to production equipment

Bold and Highlighted Denotes Conetrations Above OCD Closure Criteria

Figures

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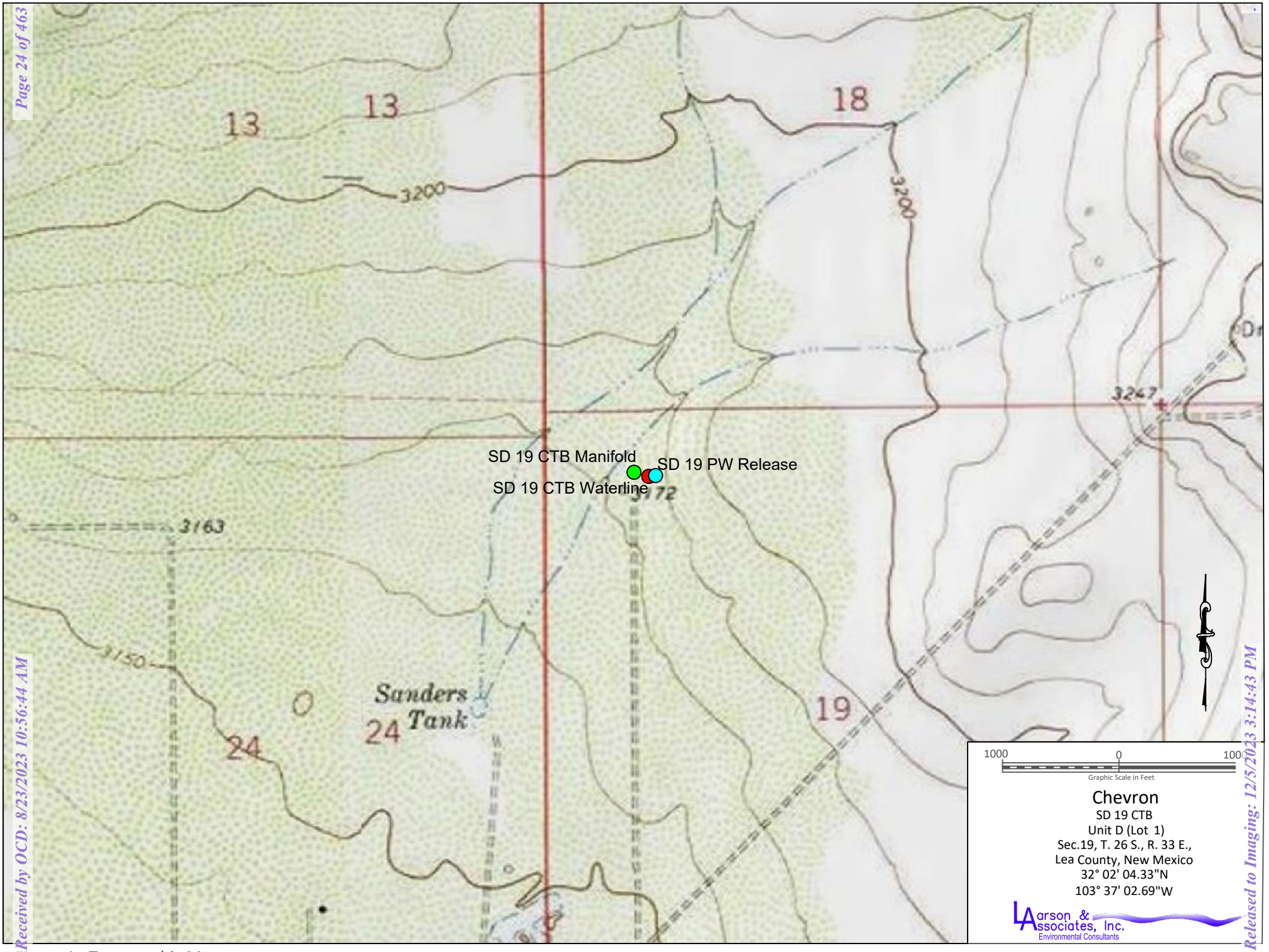

Figure 1 - Topographic Map

Received by OCD: 8/23/2023 10:56:44 AM

Released to Imaging: 12/5/2023 3:14:43 PM

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Figure 2 - Aerial Map Showing Waterline, Manifold, Produced Water Release Locations

Received by OCD: 8/23/2023 10:56:44 AM

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Figure 3 - Aerial Map Showing Boring Location

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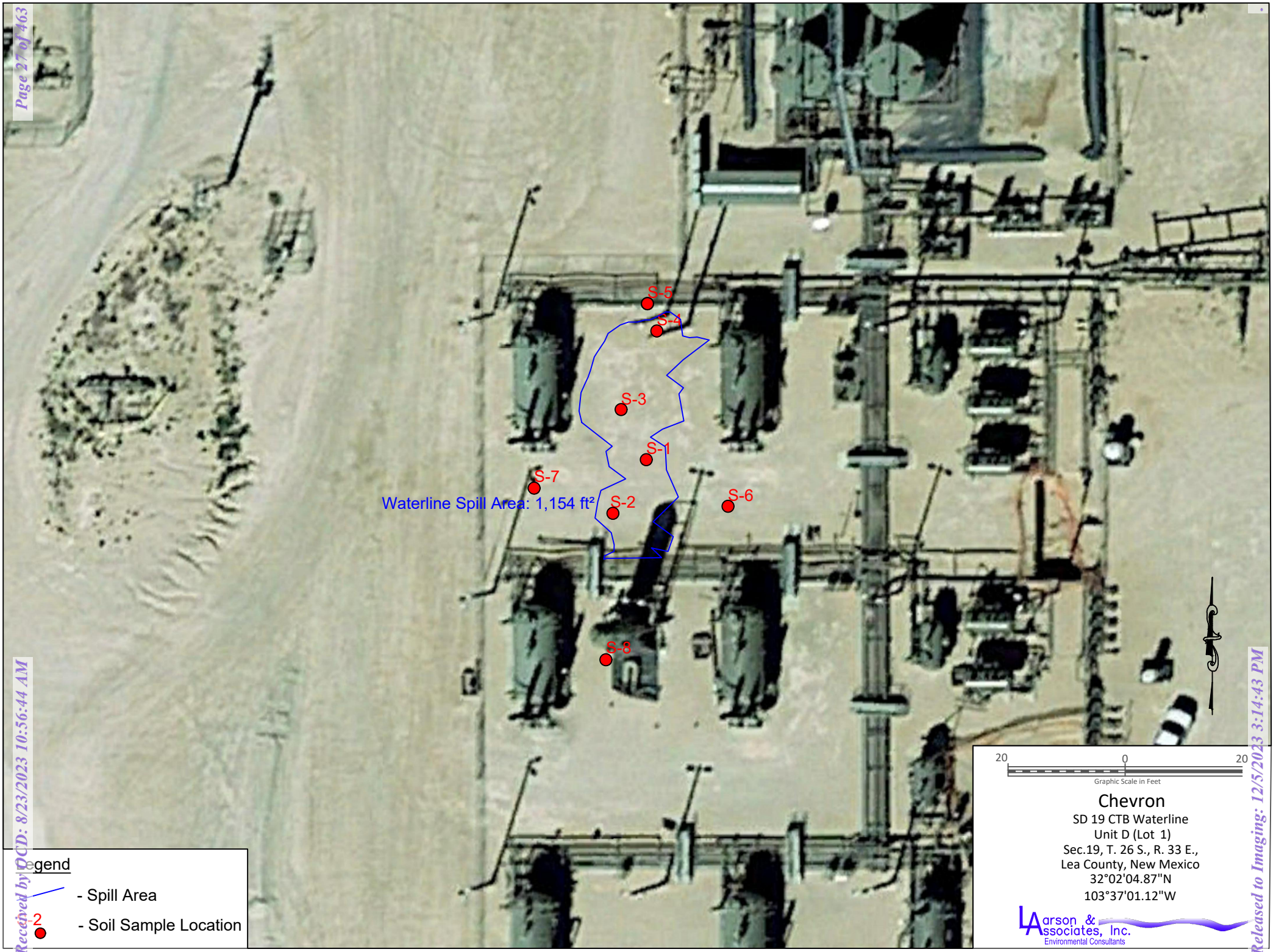

Figure 4a - Aerial Map Showing Waterline Delineation Sample Locations

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Figure 4b - Aerial Map Showing Manifold Delineation Sample Locations

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Figure 4c - Aerial Map Showing Produced Water Delineation Release Sample Locations

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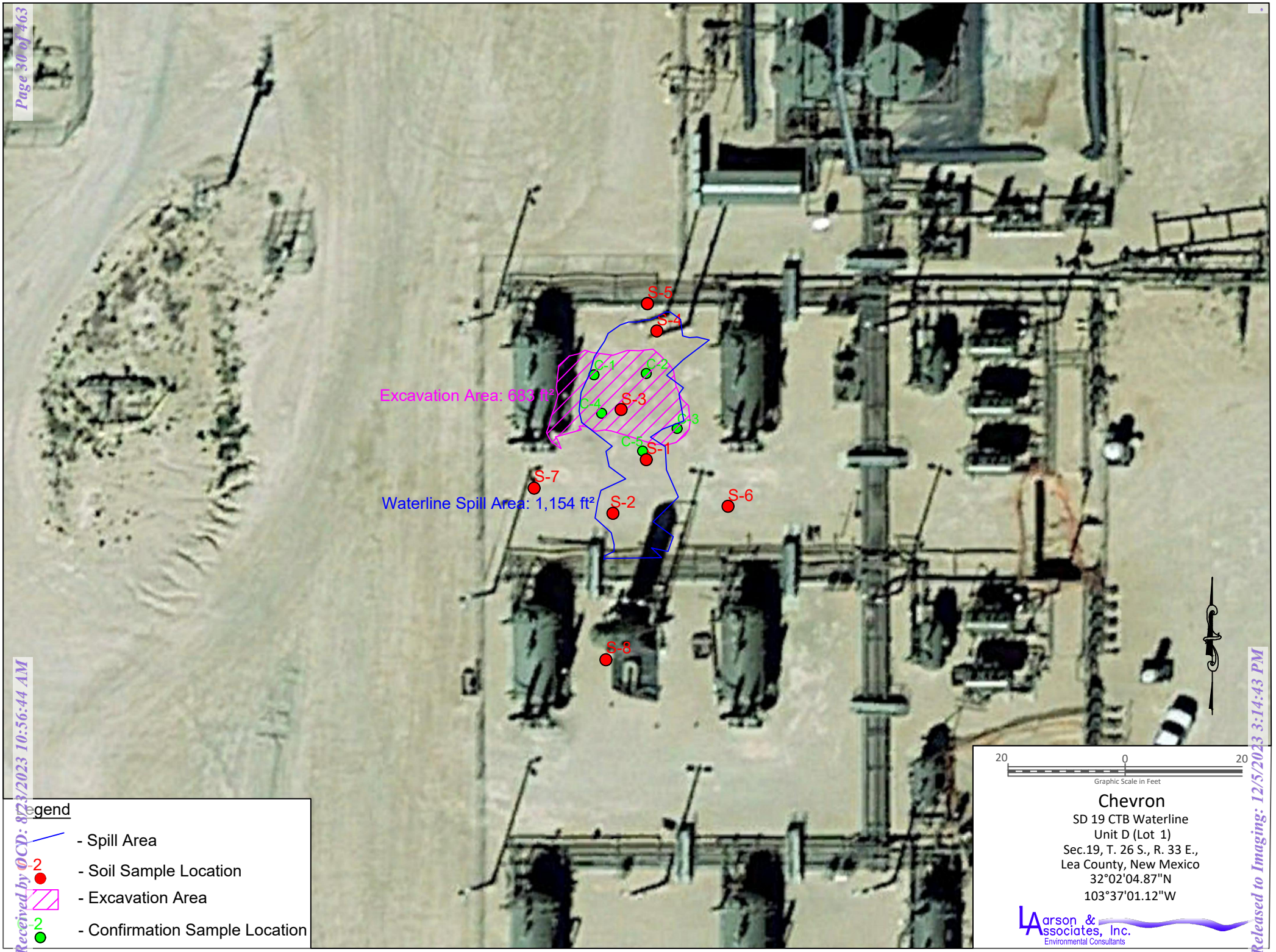

Figure 5a - Aerial Map Showing Waterline Confirmation Sample Locations

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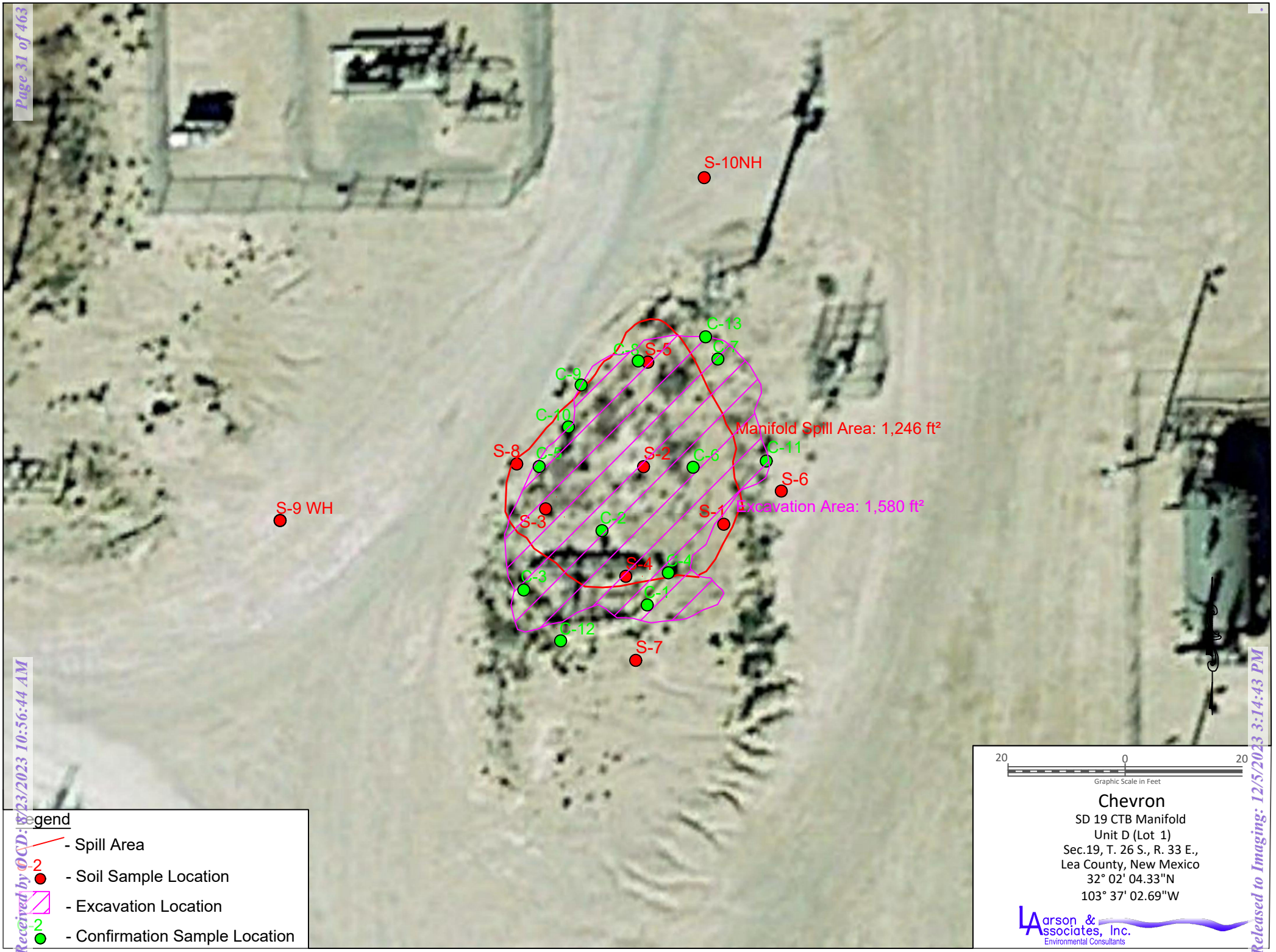

Figure 5b - Aerial Map Showing Manifold Confirmation Sample Locations

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Figure 5c - Aerial Map Showing Produced Water Release Confirmation Sample Locations

Received by OCD: 8/23/2023 10:56:44 AM

Released to Imaging: 12/5/2023 3:14:43 PM

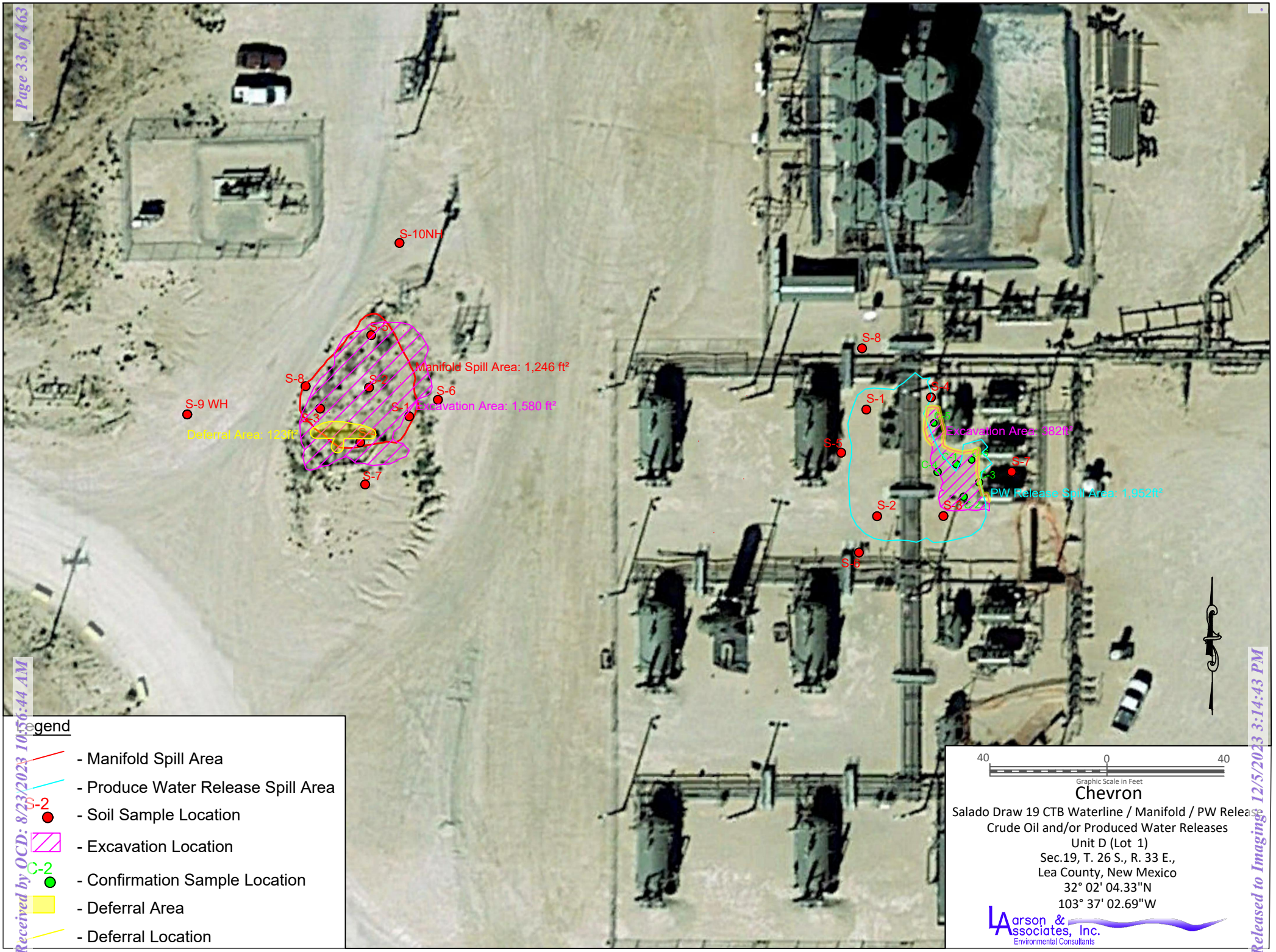

Figure 6 - Aerial Map Showing Deferral Areas

Received by OCD: 8/23/2023 10:56:44 AM
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Appendix A

Initial C-141's

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2123134861
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Chevron USA	OGRID: 4323
Contact Name: Amy Barnhill	Contact Telephone: 432-687-7108
Contact email: ABarnhill@chevron.com	Incident # *(assigned by OCD)*
Contact mailing address: 6301 Deauville Blvd Midland, Tx 79706	

Location of Release Source

Latitude 32.03476288 Longitude -103.6169817
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Salado Draw 19 CTB	Site Type: Oil
Date Release Discovered: 8-11-21	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
D	19	26S	33E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) .54 bbls	Volume Recovered (bbls) .54bbls
☒ Produced Water	Volume Released (bbls) 5.03 bbls	Volume Recovered (bbls) 2 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release: Hole in water line on backbone of train 2		

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2123134861
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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: Amy Barnhill_____ Title: Water Specialist_____

Signature: _____ Date: 8-23-21_____

email: ABarnhill@chevron.com_____ Telephone: 432-687-7108_____

OCD Only

Received by: _____ Date: _____

Incident ID	nAPP2123134861
District RP	
Facility ID	
Application ID	

Spill Calculations:

Rectangle
33 ft x 20 ft x .500 in
5.082 bbl
.184 bbl
4.758 bbl
90%
.015 bbl
.500 in

Triangle
8 ft x 8 ft x .250 in
.154 bbl
.036 bbl
0.175 bbl
95%
.017 bbl
.500 in

Rectangle
20 ft x 15 ft x 0 in
.334 bbl
.334 bbl
0.651 bbl

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2201046595
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Chevron USA	OGRID: 4323
Contact Name: Amy Barnhill	Contact Telephone432-687-7108
Contact email: ABarnhill@chevron.com	Incident # *(assigned by OCD)*
Contact mailing address: 6301 Deauville Blvd Midland, Tx 79706	

Location of Release Source

Latitude: **32.03472523** Longitude: **-103.61733653**
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Salado Draw 19 CTB	Site Type: Oil
Date Release Discovered: 12-28-21	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
D	19	26S	33E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls): 14.03	Volume Recovered (bbls): 7
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: **Field Specialist found a leak at Salado Draw water corridor riser by CTB 19. Leak was coming from a 1/2 inch hole in an 8 inch Balon ball valve.**

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2201046595
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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: Amy Barnhill Title: Water Specialist

Signature: Amy Barnhill Date: 1-10-22

email: ABarnhill@chevron.com Telephone: 432-687-7108

OCD Only

Received by: Date:

Incident ID	nAPP2201046595
District RP	
Facility ID	
Application ID	

Spill Calculations:

Area 1
Shape: Rectangle
Secondary Containment?: No
Standing Liquid Dimensions: 15 ft x 20 ft x 3 in
Standing Liquid Volume: 14.026 bbl

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2216545859
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Chevron USA	OGRID: 4323
Contact Name: Amy Barnhill	Contact Telephone: 432-687-7108
Contact email: ABarnhill@chevron.com	Incident # *(assigned by OCD)*
Contact mailing address: 6301 Deauville Blvd Midland, Tx 79706	

Location of Release Source

Latitude 32.04057543 Longitude -103.65976573
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Salado Draw CTB 19	Site Type: Oil
Date Release Discovered: 6-2-22	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
D	15	26S	32E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 6 bbls	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release: Pinhole leak along water line. Possible corrosion.		

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2216545859
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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: Amy Barnhill Title: Water Specialist

Signature: Amy Barnhill Date: 6-14-22

email: ABarnhill@chevron.com Telephone: 432-687-7108

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2216545859
District RP	
Facility ID	
Application ID	

Spill Calculations:

Reported Volumes
Oil Released: bbl
Oil Recovered: bbl
Water Released: 6bbl
Water Recovered: bbl

calculations are a circle 30 ft diameter with a depth of .250, 100% water cut.

Appendix B

Karst Risk Potential

Salado Draw 19 Central Tank Battery
Medium

Appendix C

Soil Boring Log

BORING RECORD

Start: 12:20 MDT
Finish: 15:40

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG
	0	Silty Sand, 5YR 5/4, Reddish Brown, Very Fine Grained Quartz Sand, Poorly Sorted, Dry	ML	
	6	2.5YR 5/4, Light Reddish Brown, Below 4 ft		
	10	Caliche, 7.5YR 8/2, Pinkish White, Coarse Grained, Poorly Sorted, Dry	Caliche	
	20			
	25	Silty Sand, 2.5YR 6/4, Light Reddish Brown, Fine Grained, Well Sorted, Dry	ML	
	30			
	40			
	50	Began Injecting Water		
	55	Caliche, 7.5YR 8/2, Pinkish White, Fine Grained, Dry	Caliche	
	60			
	66	Silty Sand, 7.5YR 4/2, Fine Grained Quartz Sand, Well Sorted, Dry	ML	
70.12' Depth of Water	70			
	80			
	90			
	100			
	110	TD: 110.75'		

PID READING
PPM X 1
2 4 6 8 10 12 14 16 18

SAMPLE NUMBER	PID READING	RECOVERY	DEPTH	REMARKS
1			6	BACKGROUND PID READING SOIL : PPM SOIL : PPM
2			25	
3			55	
4			66	
5			110.75	

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
LABORATORY TEST LOCATION
PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 04-09-2020
BORING NUMBER : SB-01

JOB NUMBER : Chevron/19-0180-05
HOLE DIAMETER : 2"
LOCATION : Salado Draw Frac Pond 19 32.0329056°, -103.6140528°
LAI GEOLOGIST : E. Chavez
DRILLING CONTRACTOR : Scarborough
DRILLING METHOD : Air Rotary

Appendix D

NMOCD Communications

Robert Nelson

From: Robert Nelson
Sent: Wednesday, June 7, 2023 4:40 PM
To: Nobui, Jennifer, EMNRD
Cc: Barnhill, Amy D.
Subject: Salado Draw 19 CTB (nAPP2123134861 and nAPP2216545859) Excavation Backfill Notice
Attachments: Table 2 Confirmation Soil Sample Analytical Data Summary - SD 19 CTB Waterline.pdf; Table 2b Confirmation Soil Sample Analytical Data Summary - SD 19 CTB Prodcued Water Release.pdf; Figure 4a - Aerial Map Showing Excavation Location and Confirmation Samples.pdf; Figure 4 - Aerial Map Showing Excavation Location and Confirmation Samples Deferral SW.pdf

Hello Ms. Nobui,

Larson & Associates, Inc. (LAI), on behalf of Chevron USA, submits the attached confirmation laboratory analytical data and sample location maps for the New Mexico Oil Conservation Division (OCD) District I to provide two (2) business days notification prior to backfilling the two (2) excavation areas at the Salado Draw 19 CTB (nAPP2123134861 and nAPP2216545859) in Lea County, New Mexico. Please feel free to contact Amy Barnhill with Chevron at (432)687-7723 or ABarnhill@Chevron.com or me with any questions or concerns.

Thank you,

Robert Nelson
Sr. Geologist
Office – 432-687-0901
Cell – 432-664-4804
rnelson@laenvironmental.com
Larson & Associates, Inc.
Environmental Consultants

Robert Nelson

From: Robert Nelson
Sent: Friday, July 28, 2023 8:35 AM
To: Hamlet, Robert, EMNRD; Velez, Nelson, EMNRD
Cc: Barnhill, Amy D.; Mark Larson
Subject: Salado Draw 19 CTB Manifold (nAPP2201046595) Excavation Backfill Notification
Attachments: Table-2_Confirmation-Sample-Analytical-Summary_SD-19-CTB-Manifold.pdf; Figure 4b - Aerial Map Showing Excavation Area.pdf

Hello Mr. Hamlet and Mr. Velez,

Larson & Associates, Inc. (LAI), on behalf of Chevron USA, submits the attached confirmation (post remediation) laboratory analysis data and sample location map to the New Mexico Oil Conservation Division (OCD) District I for provide two (2) business days notification prior to backfilling the excavation at the Salado Draw 19 CTB Manifold (nAPP2201046595) in Lea County, New Mexico. A deferral for sidewall sample location C-2 has been requested based on proximity to production equipment. Please feel free to contact Amy Barnhill with Chevron at ABarnhill@Chevron.com, Mark Larson at (432)687-0901) or mark@laenvironmental.com, or me with any questions or concerns.

Thank you,

Robert Nelson
Sr. Geologist
Office – 432-687-0901
Cell – 432-664-4804
rnelson@laenvironmental.com

Larson & Associates, Inc.
Environmental Consultants

Appendix E

Laboratory Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-10893-1
Laboratory Sample Delivery Group: 22-0105-01
Client Project/Site: SD 19 CTB - Waterline

For:
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
2/10/2022 2:47:52 PM

Holly Taylor, Project Manager
(806)794-1296
holly.taylor@eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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.

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Laboratory Job ID: 880-10893-1
SDG: 22-0105-01

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-10893-1
Project/Site: SD 19 CTB - Waterline SDG: 22-0105-01

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Job ID: 880-10893-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-10893-1

Receipt
The samples were received on 2/2/2022 11:10 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 -8.8°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-18467 and analytical batch 880-18404 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-18410 and analytical batch 880-18623 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 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: S-2 0.5' (880-10893-3). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: S-3 0.5' (880-10893-5), S-3 1' (880-10893-6), (LCSD 880-18779/3-A), (880-10781-A-22-D), (880-10781-A-22-E MS) and (880-10781-A-22-F MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-18572 and 880-18572 and analytical batch 880-18733 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.

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

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Client Sample ID: S-1 0.5'

Lab Sample ID: 880-10893-1
Matrix: Solid
Date Collected: 02/01/22 13:20
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:51	02/04/22 08:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:51	02/04/22 08:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:51	02/04/22 08:02	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		02/03/22 09:51	02/04/22 08:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:51	02/04/22 08:02	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/03/22 09:51	02/04/22 08:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*02/03/22 09:51*	*02/04/22 08:02*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*02/03/22 09:51*	*02/04/22 08:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/07/22 15:39	1

Method: 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			02/08/22 16:56	1

Method: 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 F2	50.0		mg/Kg		02/02/22 15:57	02/06/22 00:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U F2	50.0		mg/Kg		02/02/22 15:57	02/06/22 00:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/02/22 15:57	02/06/22 00:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*80*		*70 - 130*	*02/02/22 15:57*	*02/06/22 00:37*	*1*
o-Terphenyl (Surr)	*89*		*70 - 130*	*02/02/22 15:57*	*02/06/22 00:37*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**30.4**	**F1**	4.95		mg/Kg			02/09/22 22:08	1

Client Sample ID: S-1 1'

Lab Sample ID: 880-10893-2
Matrix: Solid
Date Collected: 02/01/22 13:21
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/03/22 09:51	02/04/22 08:22	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/03/22 09:51	02/04/22 08:22	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/03/22 09:51	02/04/22 08:22	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		02/03/22 09:51	02/04/22 08:22	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/03/22 09:51	02/04/22 08:22	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/03/22 09:51	02/04/22 08:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*02/03/22 09:51*	*02/04/22 08:22*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*02/03/22 09:51*	*02/04/22 08:22*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Client Sample ID: S-1 1'

Lab Sample ID: 880-10893-2
Matrix: Solid
Date Collected: 02/01/22 13:21
Date Received: 02/02/22 11:10

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/07/22 15:39	1

Method: 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			02/08/22 16:56	1

Method: 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		02/02/22 15:57	02/06/22 01:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/02/22 15:57	02/06/22 01:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/02/22 15:57	02/06/22 01:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*70*		*70 - 130*	*02/02/22 15:57*	*02/06/22 01:39*	*1*
o-Terphenyl (Surr)	*78*		*70 - 130*	*02/02/22 15:57*	*02/06/22 01:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19.0**		5.01		mg/Kg			02/09/22 22:23	1

Client Sample ID: S-2 0.5'

Lab Sample ID: 880-10893-3
Matrix: Solid
Date Collected: 02/01/22 13:22
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:51	02/04/22 08:43	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:51	02/04/22 08:43	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:51	02/04/22 08:43	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/22 09:51	02/04/22 08:43	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:51	02/04/22 08:43	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/22 09:51	02/04/22 08:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*02/03/22 09:51*	*02/04/22 08:43*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*02/03/22 09:51*	*02/04/22 08:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/07/22 15:39	1

Method: 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			02/08/22 16:56	1

Method: 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		02/02/22 15:57	02/06/22 02:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/02/22 15:57	02/06/22 02:00	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Client Sample ID: S-2 0.5'

Lab Sample ID: 880-10893-3
Matrix: Solid
Date Collected: 02/01/22 13:22
Date Received: 02/02/22 11:10

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/02/22 15:57	02/06/22 02:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*68*	*S1-*	*70 - 130*	*02/02/22 15:57*	*02/06/22 02:00*	*1*
o-Terphenyl (Surr)	*75*		*70 - 130*	*02/02/22 15:57*	*02/06/22 02:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**149**		4.98		mg/Kg			02/09/22 22:27	1

Client Sample ID: S-2 1'

Lab Sample ID: 880-10893-4
Matrix: Solid
Date Collected: 02/01/22 13:23
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U F1	0.00198		mg/Kg		02/03/22 10:06	02/04/22 02:43	1
Toluene	<0.00198	U F1	0.00198		mg/Kg		02/03/22 10:06	02/04/22 02:43	1
Ethylbenzene	<0.00198	U F1	0.00198		mg/Kg		02/03/22 10:06	02/04/22 02:43	1
m,p-Xylenes	<0.00397	U F1	0.00397		mg/Kg		02/03/22 10:06	02/04/22 02:43	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/03/22 10:06	02/04/22 02:43	1
Xylenes, Total	<0.00397	U F1	0.00397		mg/Kg		02/03/22 10:06	02/04/22 02:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*237*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 02:43*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*02/03/22 10:06*	*02/04/22 02:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			02/04/22 16:59	1

Method: 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			02/08/22 16:56	1

Method: 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		02/02/22 15:57	02/06/22 02:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/02/22 15:57	02/06/22 02:21	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/02/22 15:57	02/06/22 02:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*78*		*70 - 130*	*02/02/22 15:57*	*02/06/22 02:21*	*1*
o-Terphenyl (Surr)	*86*		*70 - 130*	*02/02/22 15:57*	*02/06/22 02:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**186**		4.99		mg/Kg			02/09/22 22:32	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Client Sample ID: S-3 0.5'

Lab Sample ID: 880-10893-5
Matrix: Solid
Date Collected: 02/01/22 13:24
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 03:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 03:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 03:10	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/22 10:06	02/04/22 03:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 03:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/22 10:06	02/04/22 03:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*223*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 03:10*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*02/03/22 10:06*	*02/04/22 03:10*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/07/22 15:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**2160**		50.0		mg/Kg			02/08/22 16:56	1

Method: 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		02/07/22 17:05	02/08/22 15:47	1
Diesel Range Organics (Over C10-C28)	**2160**		50.0		mg/Kg		02/07/22 17:05	02/08/22 15:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/07/22 17:05	02/08/22 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*66*	*S1-*	*70 - 130*	*02/07/22 17:05*	*02/08/22 15:47*	*1*
o-Terphenyl (Surr)	*71*		*70 - 130*	*02/07/22 17:05*	*02/08/22 15:47*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**42.2**		4.95		mg/Kg			02/09/22 22:37	1

Client Sample ID: S-3 1'

Lab Sample ID: 880-10893-6
Matrix: Solid
Date Collected: 02/01/22 13:25
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 03:37	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 03:37	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 03:37	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/22 10:06	02/04/22 03:37	1
o-Xylene	**0.0370**		0.00199		mg/Kg		02/03/22 10:06	02/04/22 03:37	1
Xylenes, Total	**0.0370**		0.00398		mg/Kg		02/03/22 10:06	02/04/22 03:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*173*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 03:37*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*02/03/22 10:06*	*02/04/22 03:37*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Client Sample ID: S-3 1'

Lab Sample ID: 880-10893-6
Matrix: Solid
Date Collected: 02/01/22 13:25
Date Received: 02/02/22 11:10

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0370**		0.00398		mg/Kg			02/07/22 15:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**681**		49.9		mg/Kg			02/08/22 16:56	1

Method: 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		02/07/22 17:05	02/08/22 16:08	1
Diesel Range Organics (Over C10-C28)	**681**		49.9		mg/Kg		02/07/22 17:05	02/08/22 16:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/07/22 17:05	02/08/22 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*65*	*S1-*	*70 - 130*	*02/07/22 17:05*	*02/08/22 16:08*	*1*
o-Terphenyl (Surr)	*69*	*S1-*	*70 - 130*	*02/07/22 17:05*	*02/08/22 16:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**44.6**		5.04		mg/Kg			02/09/22 22:52	1

Client Sample ID: S-4 0.5'

Lab Sample ID: 880-10893-7
Matrix: Solid
Date Collected: 02/01/22 13:26
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 04:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 04:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 04:03	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/03/22 10:06	02/04/22 04:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 04:03	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/03/22 10:06	02/04/22 04:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*175*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 04:03*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*02/03/22 10:06*	*02/04/22 04:03*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/07/22 15:39	1

Method: 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			02/08/22 16:56	1

Method: 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		02/02/22 15:57	02/06/22 03:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/02/22 15:57	02/06/22 03:22	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Client Sample ID: S-4 0.5'

Lab Sample ID: 880-10893-7
Matrix: Solid
Date Collected: 02/01/22 13:26
Date Received: 02/02/22 11:10

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/02/22 15:57	02/06/22 03:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*79*		*70 - 130*	*02/02/22 15:57*	*02/06/22 03:22*	*1*
o-Terphenyl (Surr)	*88*		*70 - 130*	*02/02/22 15:57*	*02/06/22 03:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.5**		5.05		mg/Kg			02/09/22 22:57	1

Client Sample ID: S-5 0.5'

Lab Sample ID: 880-10893-8
Matrix: Solid
Date Collected: 02/01/22 13:28
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 04:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 04:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 04:31	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		02/03/22 10:06	02/04/22 04:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 04:31	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/03/22 10:06	02/04/22 04:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*190*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 04:31*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*02/03/22 10:06*	*02/04/22 04:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/07/22 15:39	1

Method: 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			02/08/22 16:56	1

Method: 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		02/02/22 15:57	02/06/22 03:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/02/22 15:57	02/06/22 03:42	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/02/22 15:57	02/06/22 03:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*73*		*70 - 130*	*02/02/22 15:57*	*02/06/22 03:42*	*1*
o-Terphenyl (Surr)	*81*		*70 - 130*	*02/02/22 15:57*	*02/06/22 03:42*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23.7**		5.00		mg/Kg			02/09/22 23:01	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Client Sample ID: S-6 0.5'

Lab Sample ID: 880-10893-9
Matrix: Solid
Date Collected: 02/01/22 13:30
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 04:58	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 04:58	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 04:58	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		02/03/22 10:06	02/04/22 04:58	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 04:58	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/03/22 10:06	02/04/22 04:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*152*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 04:58*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*02/03/22 10:06*	*02/04/22 04:58*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/07/22 15:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**54.3**		50.0		mg/Kg			02/08/22 16:56	1

Method: 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		02/07/22 17:05	02/08/22 16:30	1
Diesel Range Organics (Over C10-C28)	**54.3**		50.0		mg/Kg		02/07/22 17:05	02/08/22 16:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/07/22 17:05	02/08/22 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*70*		*70 - 130*	*02/07/22 17:05*	*02/08/22 16:30*	*1*
o-Terphenyl (Surr)	*75*		*70 - 130*	*02/07/22 17:05*	*02/08/22 16:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**133**		4.98		mg/Kg			02/09/22 23:06	1

Client Sample ID: S-7 0.5'

Lab Sample ID: 880-10893-10
Matrix: Solid
Date Collected: 02/01/22 13:32
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 05:25	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 05:25	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 05:25	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/22 10:06	02/04/22 05:25	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 05:25	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/22 10:06	02/04/22 05:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*165*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 05:25*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/03/22 10:06*	*02/04/22 05:25*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Client Sample ID: S-7 0.5'

Lab Sample ID: 880-10893-10
Matrix: Solid
Date Collected: 02/01/22 13:32
Date Received: 02/02/22 11:10

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/07/22 15:39	1

Method: 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			02/08/22 16:56	1

Method: 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		02/02/22 15:57	02/06/22 04:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/02/22 15:57	02/06/22 04:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/02/22 15:57	02/06/22 04:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*78*		*70 - 130*	*02/02/22 15:57*	*02/06/22 04:23*	*1*
o-Terphenyl (Surr)	*86*		*70 - 130*	*02/02/22 15:57*	*02/06/22 04:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**231**		4.99		mg/Kg			02/09/22 23:11	1

Client Sample ID: S-8 0.5'

Lab Sample ID: 880-10893-11
Matrix: Solid
Date Collected: 02/01/22 13:34
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 05:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 05:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 05:53	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/03/22 10:06	02/04/22 05:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 05:53	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/03/22 10:06	02/04/22 05:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*152*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 05:53*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*02/03/22 10:06*	*02/04/22 05:53*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/07/22 15:39	1

Method: 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			02/08/22 16:56	1

Method: 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		02/02/22 15:57	02/06/22 05:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/02/22 15:57	02/06/22 05:04	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Client Sample ID: S-8 0.5'
Date Collected: 02/01/22 13:34
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10893-11
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/02/22 15:57	02/06/22 05:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*81*		*70 - 130*	*02/02/22 15:57*	*02/06/22 05:04*	*1*
o-Terphenyl (Surr)	*87*		*70 - 130*	*02/02/22 15:57*	*02/06/22 05:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**278**	**F1**	5.00		mg/Kg			02/09/22 23:16	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-10891-A-22-D MS	Matrix Spike	114	94
880-10891-A-22-E MSD	Matrix Spike Duplicate	126	101
880-10893-1	S-1 0.5'	115	90
880-10893-2	S-1 1'	105	86
880-10893-3	S-2 0.5'	112	93
880-10893-4	S-2 1'	237 S1+	72
880-10893-4 MS	S-2 1'	168 S1+	98
880-10893-4 MSD	S-2 1'	157 S1+	105
880-10893-5	S-3 0.5'	223 S1+	77
880-10893-6	S-3 1'	173 S1+	77
880-10893-7	S-4 0.5'	175 S1+	96
880-10893-8	S-5 0.5'	190 S1+	86
880-10893-9	S-6 0.5'	152 S1+	88
880-10893-10	S-7 0.5'	165 S1+	108
880-10893-11	S-8 0.5'	152 S1+	96
LCS 880-18464/1-A	Lab Control Sample	117	101
LCS 880-18467/1-A	Lab Control Sample	180 S1+	95
LCSD 880-18464/2-A	Lab Control Sample Dup	114	102
LCSD 880-18467/2-A	Lab Control Sample Dup	154 S1+	87
MB 880-18404/8	Method Blank	120	72
MB 880-18464/5-A	Method Blank	122	101
MB 880-18467/5-A	Method Blank	128	76

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**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-10781-A-22-E MS	Matrix Spike	71	64 S1-
880-10781-A-22-F MSD	Matrix Spike Duplicate	71	64 S1-
880-10893-1	S-1 0.5'	80	89
880-10893-1 MS	S-1 0.5'	91	93
880-10893-1 MSD	S-1 0.5'	75	74
880-10893-2	S-1 1'	70	78
880-10893-3	S-2 0.5'	68 S1-	75
880-10893-4	S-2 1'	78	86
880-10893-5	S-3 0.5'	66 S1-	71
880-10893-6	S-3 1'	65 S1-	69 S1-
880-10893-7	S-4 0.5'	79	88
880-10893-8	S-5 0.5'	73	81
880-10893-9	S-6 0.5'	70	75
880-10893-10	S-7 0.5'	78	86
880-10893-11	S-8 0.5'	81	87
LCS 880-18410/2-A	Lab Control Sample	106	110
LCS 880-18779/2-A	Lab Control Sample	76	71

Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-10893-1
Project/Site: SD 19 CTB - Waterline SDG: 22-0105-01

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
LCSD 880-18410/3-A	Lab Control Sample Dup	96	101								
LCSD 880-18779/3-A	Lab Control Sample Dup	72	68 S1-								
MB 880-18410/1-A	Method Blank	88	100								
MB 880-18779/1-A	Method Blank	76	83								

Surrogate Legend

1CO = 1-Chlorooctane (Surr)

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-18404/8
Matrix: Solid
Analysis Batch: 18404

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			02/03/22 17:23	1
Toluene	<0.00200	U	0.00200		mg/Kg			02/03/22 17:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			02/03/22 17:23	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg			02/03/22 17:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			02/03/22 17:23	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			02/03/22 17:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*		*02/03/22 17:23*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*		*02/03/22 17:23*	*1*

Lab Sample ID: MB 880-18464/5-A
Matrix: Solid
Analysis Batch: 18466

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18464

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:51	02/04/22 00:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:51	02/04/22 00:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:51	02/04/22 00:16	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/03/22 09:51	02/04/22 00:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:51	02/04/22 00:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/03/22 09:51	02/04/22 00:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*02/03/22 09:51*	*02/04/22 00:16*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/03/22 09:51*	*02/04/22 00:16*	*1*

Lab Sample ID: LCS 880-18464/1-A
Matrix: Solid
Analysis Batch: 18466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18464

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07101		mg/Kg		71	70 - 130		
Toluene			0.100	0.07805		mg/Kg		78	70 - 130		
Ethylbenzene			0.100	0.08818		mg/Kg		88	70 - 130		
m,p-Xylenes			0.200	0.1715		mg/Kg		86	70 - 130		
o-Xylene			0.100	0.08957		mg/Kg		90	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-18464/2-A
Matrix: Solid
Analysis Batch: 18466

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18464

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07297		mg/Kg		73	70 - 130	3	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

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

Lab Sample ID: LCSD 880-18464/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18466 — **Prep Batch: 18464**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.07640		mg/Kg		76	70 - 130	2	35
Ethylbenzene			0.100	0.08377		mg/Kg		84	70 - 130	5	35
m,p-Xylenes			0.200	0.1657		mg/Kg		83	70 - 130	3	35
o-Xylene			0.100	0.08049		mg/Kg		80	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 880-10891-A-22-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18466 — **Prep Batch: 18464**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.0990	0.07275		mg/Kg		73	70 - 130
Toluene	<0.00200	U	0.0990	0.07524		mg/Kg		76	70 - 130
Ethylbenzene	<0.00200	U	0.0990	0.08490		mg/Kg		86	70 - 130
m,p-Xylenes	<0.00401	U	0.198	0.1616		mg/Kg		82	70 - 130
o-Xylene	<0.00200	U	0.0990	0.08427		mg/Kg		85	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 880-10891-A-22-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18466 — **Prep Batch: 18464**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.08263		mg/Kg		82	70 - 130	13	35
Toluene	<0.00200	U	0.100	0.09422		mg/Kg		94	70 - 130	22	35
Ethylbenzene	<0.00200	U	0.100	0.09487		mg/Kg		94	70 - 130	11	35
m,p-Xylenes	<0.00401	U	0.201	0.1886		mg/Kg		94	70 - 130	15	35
o-Xylene	<0.00200	U	0.100	0.09185		mg/Kg		91	70 - 130	9	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: MB 880-18467/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18404 — **Prep Batch: 18467**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 02:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 02:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 02:17	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/03/22 10:06	02/04/22 02:17	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

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

Lab Sample ID: MB 880-18467/5-A
Matrix: Solid
Analysis Batch: 18404

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18467

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 02:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/03/22 10:06	02/04/22 02:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*	*02/03/22 10:06*	*02/04/22 02:17*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*02/03/22 10:06*	*02/04/22 02:17*	*1*

Lab Sample ID: LCS 880-18467/1-A
Matrix: Solid
Analysis Batch: 18404

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18467

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08145		mg/Kg		81	70 - 130		
Toluene			0.100	0.08647		mg/Kg		86	70 - 130		
Ethylbenzene			0.100	0.09778		mg/Kg		98	70 - 130		
m,p-Xylenes			0.200	0.1881		mg/Kg		94	70 - 130		
o-Xylene			0.100	0.1011		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*180*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 880-18467/2-A
Matrix: Solid
Analysis Batch: 18404

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18467

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07464		mg/Kg		75	70 - 130	9	35
Toluene			0.100	0.07488		mg/Kg		75	70 - 130	14	35
Ethylbenzene			0.100	0.08497		mg/Kg		85	70 - 130	14	35
m,p-Xylenes			0.200	0.1632		mg/Kg		82	70 - 130	14	35
o-Xylene			0.100	0.08892		mg/Kg		89	70 - 130	13	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*154*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: 880-10893-4 MS
Matrix: Solid
Analysis Batch: 18404

Client Sample ID: S-2 1'
Prep Type: Total/NA
Prep Batch: 18467

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00198	U F1	0.0996	0.05971	F1	mg/Kg		60	70 - 130		
Toluene	<0.00198	U F1	0.0996	0.06053	F1	mg/Kg		61	70 - 130		
Ethylbenzene	<0.00198	U F1	0.0996	0.06883	F1	mg/Kg		69	70 - 130		
m,p-Xylenes	<0.00397	U F1	0.199	0.1299	F1	mg/Kg		65	70 - 130		
o-Xylene	<0.00198	U	0.0996	0.07058		mg/Kg		71	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

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

Lab Sample ID: 880-10893-4 MS
Matrix: Solid
Analysis Batch: 18404

Client Sample ID: S-2 1'
Prep Type: Total/NA
Prep Batch: 18467

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	168	S1+	70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 880-10893-4 MSD
Matrix: Solid
Analysis Batch: 18404

Client Sample ID: S-2 1'
Prep Type: Total/NA
Prep Batch: 18467

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U F1	0.0996	0.06598	F1	mg/Kg		66	70 - 130	10	35
Toluene	<0.00198	U F1	0.0996	0.06460	F1	mg/Kg		65	70 - 130	7	35
Ethylbenzene	<0.00198	U F1	0.0996	0.07157		mg/Kg		72	70 - 130	4	35
m,p-Xylenes	<0.00397	U F1	0.199	0.1353	F1	mg/Kg		68	70 - 130	4	35
o-Xylene	<0.00198	U	0.0996	0.07369		mg/Kg		74	70 - 130	4	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	157	S1+	70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

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

Lab Sample ID: MB 880-18410/1-A
Matrix: Solid
Analysis Batch: 18623

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18410

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/02/22 15:57	02/05/22 23:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/02/22 15:57	02/05/22 23:37	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/02/22 15:57	02/05/22 23:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	88		70 - 130	02/02/22 15:57	02/05/22 23:37	1
o-Terphenyl (Surr)	100		70 - 130	02/02/22 15:57	02/05/22 23:37	1

Lab Sample ID: LCS 880-18410/2-A
Matrix: Solid
Analysis Batch: 18623

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18410

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	890.3		mg/Kg		89	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1301		mg/Kg		130	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	106		70 - 130
o-Terphenyl (Surr)	110		70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

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

Lab Sample ID: LCSD 880-18410/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18623 — **Prep Batch: 18410**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	888.9		mg/Kg		89	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	1197		mg/Kg		120	70 - 130	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*96*		*70 - 130*
o-Terphenyl (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-10893-1 MS — **Client Sample ID: S-1 0.5'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18623 — **Prep Batch: 18410**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	1000	1117		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U F2	1000	1223		mg/Kg		120	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*91*		*70 - 130*
o-Terphenyl (Surr)	*93*		*70 - 130*

Lab Sample ID: 880-10893-1 MSD — **Client Sample ID: S-1 0.5'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18623 — **Prep Batch: 18410**

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	<50.0	U F2	998	876.7	F2	mg/Kg		85	70 - 130	24	20
Diesel Range Organics (Over C10-C28)	<50.0	U F2	998	970.8	F2	mg/Kg		95	70 - 130	23	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*75*		*70 - 130*
o-Terphenyl (Surr)	*74*		*70 - 130*

Lab Sample ID: MB 880-18779/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18806 — **Prep Batch: 18779**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/07/22 17:05	02/08/22 13:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/07/22 17:05	02/08/22 13:37	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/07/22 17:05	02/08/22 13:37	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

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

Lab Sample ID: MB 880-18779/1-A
Matrix: Solid
Analysis Batch: 18806

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18779

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	76		70 - 130	02/07/22 17:05	02/08/22 13:37	1
o-Terphenyl (Surr)	83		70 - 130	02/07/22 17:05	02/08/22 13:37	1

Lab Sample ID: LCS 880-18779/2-A
Matrix: Solid
Analysis Batch: 18806

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18779

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	866.4		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	879.4		mg/Kg		88	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	76		70 - 130
o-Terphenyl (Surr)	71		70 - 130

Lab Sample ID: LCSD 880-18779/3-A
Matrix: Solid
Analysis Batch: 18806

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	826.6		mg/Kg		83	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	853.7		mg/Kg		85	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	72		70 - 130
o-Terphenyl (Surr)	68	S1-	70 - 130

Lab Sample ID: 880-10781-A-22-E MS
Matrix: Solid
Analysis Batch: 18806

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18779

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	1000	865.2		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)	52.3		1000	817.4		mg/Kg		77	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	71		70 - 130
o-Terphenyl (Surr)	64	S1-	70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

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

Lab Sample ID: 880-10781-A-22-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18806 — **Prep Batch: 18779**

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	998	868.9		mg/Kg		87	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	52.3		998	821.6		mg/Kg		77	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*71*		*70 - 130*
o-Terphenyl (Surr)	*64*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-18572/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18733

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/09/22 21:53	1

Lab Sample ID: LCS 880-18572/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18733

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	253.8		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-18572/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18733

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	251.1		mg/Kg		100	90 - 110	1	20

Lab Sample ID: 880-10893-1 MS — **Client Sample ID: S-1 0.5'**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18733

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	30.4	F1	248	218.1	F1	mg/Kg		76	90 - 110		

Lab Sample ID: 880-10893-1 MSD — **Client Sample ID: S-1 0.5'**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18733

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	30.4	F1	248	257.9		mg/Kg		92	90 - 110	17	20

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-10893-11 MS
Matrix: Solid
Analysis Batch: 18733

Client Sample ID: S-8 0.5'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	278	F1	250	501.8	F1	mg/Kg		89	90 - 110		

Lab Sample ID: 880-10893-11 MSD
Matrix: Solid
Analysis Batch: 18733

Client Sample ID: S-8 0.5'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	278	F1	250	508.2		mg/Kg		92	90 - 110	1	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

GC VOA

Analysis Batch: 18404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-4	S-2 1'	Total/NA	Solid	8021B	18467
880-10893-5	S-3 0.5'	Total/NA	Solid	8021B	18467
880-10893-6	S-3 1'	Total/NA	Solid	8021B	18467
880-10893-7	S-4 0.5'	Total/NA	Solid	8021B	18467
880-10893-8	S-5 0.5'	Total/NA	Solid	8021B	18467
880-10893-9	S-6 0.5'	Total/NA	Solid	8021B	18467
880-10893-10	S-7 0.5'	Total/NA	Solid	8021B	18467
880-10893-11	S-8 0.5'	Total/NA	Solid	8021B	18467
MB 880-18404/8	Method Blank	Total/NA	Solid	8021B	
MB 880-18467/5-A	Method Blank	Total/NA	Solid	8021B	18467
LCS 880-18467/1-A	Lab Control Sample	Total/NA	Solid	8021B	18467
LCSD 880-18467/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	18467
880-10893-4 MS	S-2 1'	Total/NA	Solid	8021B	18467
880-10893-4 MSD	S-2 1'	Total/NA	Solid	8021B	18467

Prep Batch: 18464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-1	S-1 0.5'	Total/NA	Solid	5035	
880-10893-2	S-1 1'	Total/NA	Solid	5035	
880-10893-3	S-2 0.5'	Total/NA	Solid	5035	
MB 880-18464/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-18464/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-18464/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-10891-A-22-D MS	Matrix Spike	Total/NA	Solid	5035	
880-10891-A-22-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 18466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-1	S-1 0.5'	Total/NA	Solid	8021B	18464
880-10893-2	S-1 1'	Total/NA	Solid	8021B	18464
880-10893-3	S-2 0.5'	Total/NA	Solid	8021B	18464
MB 880-18464/5-A	Method Blank	Total/NA	Solid	8021B	18464
LCS 880-18464/1-A	Lab Control Sample	Total/NA	Solid	8021B	18464
LCSD 880-18464/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	18464
880-10891-A-22-D MS	Matrix Spike	Total/NA	Solid	8021B	18464
880-10891-A-22-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	18464

Prep Batch: 18467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-4	S-2 1'	Total/NA	Solid	5035	
880-10893-5	S-3 0.5'	Total/NA	Solid	5035	
880-10893-6	S-3 1'	Total/NA	Solid	5035	
880-10893-7	S-4 0.5'	Total/NA	Solid	5035	
880-10893-8	S-5 0.5'	Total/NA	Solid	5035	
880-10893-9	S-6 0.5'	Total/NA	Solid	5035	
880-10893-10	S-7 0.5'	Total/NA	Solid	5035	
880-10893-11	S-8 0.5'	Total/NA	Solid	5035	
MB 880-18467/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-18467/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-18467/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-10893-4 MS	S-2 1'	Total/NA	Solid	5035	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

GC VOA (Continued)

Prep Batch: 18467 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-4 MSD	S-2 1'	Total/NA	Solid	5035	

Analysis Batch: 18618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-4	S-2 1'	Total/NA	Solid	Total BTEX	

Analysis Batch: 18770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-1	S-1 0.5'	Total/NA	Solid	Total BTEX	
880-10893-2	S-1 1'	Total/NA	Solid	Total BTEX	
880-10893-3	S-2 0.5'	Total/NA	Solid	Total BTEX	
880-10893-5	S-3 0.5'	Total/NA	Solid	Total BTEX	
880-10893-6	S-3 1'	Total/NA	Solid	Total BTEX	
880-10893-7	S-4 0.5'	Total/NA	Solid	Total BTEX	
880-10893-8	S-5 0.5'	Total/NA	Solid	Total BTEX	
880-10893-9	S-6 0.5'	Total/NA	Solid	Total BTEX	
880-10893-10	S-7 0.5'	Total/NA	Solid	Total BTEX	
880-10893-11	S-8 0.5'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 18410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-1	S-1 0.5'	Total/NA	Solid	8015NM Prep	
880-10893-2	S-1 1'	Total/NA	Solid	8015NM Prep	
880-10893-3	S-2 0.5'	Total/NA	Solid	8015NM Prep	
880-10893-4	S-2 1'	Total/NA	Solid	8015NM Prep	
880-10893-7	S-4 0.5'	Total/NA	Solid	8015NM Prep	
880-10893-8	S-5 0.5'	Total/NA	Solid	8015NM Prep	
880-10893-10	S-7 0.5'	Total/NA	Solid	8015NM Prep	
880-10893-11	S-8 0.5'	Total/NA	Solid	8015NM Prep	
MB 880-18410/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18410/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-18410/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-10893-1 MS	S-1 0.5'	Total/NA	Solid	8015NM Prep	
880-10893-1 MSD	S-1 0.5'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 18623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-1	S-1 0.5'	Total/NA	Solid	8015B NM	18410
880-10893-2	S-1 1'	Total/NA	Solid	8015B NM	18410
880-10893-3	S-2 0.5'	Total/NA	Solid	8015B NM	18410
880-10893-4	S-2 1'	Total/NA	Solid	8015B NM	18410
880-10893-7	S-4 0.5'	Total/NA	Solid	8015B NM	18410
880-10893-8	S-5 0.5'	Total/NA	Solid	8015B NM	18410
880-10893-10	S-7 0.5'	Total/NA	Solid	8015B NM	18410
880-10893-11	S-8 0.5'	Total/NA	Solid	8015B NM	18410
MB 880-18410/1-A	Method Blank	Total/NA	Solid	8015B NM	18410
LCS 880-18410/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18410
LCSD 880-18410/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18410
880-10893-1 MS	S-1 0.5'	Total/NA	Solid	8015B NM	18410

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-10893-1
Project/Site: SD 19 CTB - Waterline SDG: 22-0105-01

GC Semi VOA (Continued)

Analysis Batch: 18623 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-1 MSD	S-1 0.5'	Total/NA	Solid	8015B NM	18410

Prep Batch: 18779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-5	S-3 0.5'	Total/NA	Solid	8015NM Prep	
880-10893-6	S-3 1'	Total/NA	Solid	8015NM Prep	
880-10893-9	S-6 0.5'	Total/NA	Solid	8015NM Prep	
MB 880-18779/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18779/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-18779/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-10781-A-22-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-10781-A-22-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 18806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-5	S-3 0.5'	Total/NA	Solid	8015B NM	18779
880-10893-6	S-3 1'	Total/NA	Solid	8015B NM	18779
880-10893-9	S-6 0.5'	Total/NA	Solid	8015B NM	18779
MB 880-18779/1-A	Method Blank	Total/NA	Solid	8015B NM	18779
LCS 880-18779/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18779
LCSD 880-18779/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18779
880-10781-A-22-E MS	Matrix Spike	Total/NA	Solid	8015B NM	18779
880-10781-A-22-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	18779

Analysis Batch: 18870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-1	S-1 0.5'	Total/NA	Solid	8015 NM	
880-10893-2	S-1 1'	Total/NA	Solid	8015 NM	
880-10893-3	S-2 0.5'	Total/NA	Solid	8015 NM	
880-10893-4	S-2 1'	Total/NA	Solid	8015 NM	
880-10893-5	S-3 0.5'	Total/NA	Solid	8015 NM	
880-10893-6	S-3 1'	Total/NA	Solid	8015 NM	
880-10893-7	S-4 0.5'	Total/NA	Solid	8015 NM	
880-10893-8	S-5 0.5'	Total/NA	Solid	8015 NM	
880-10893-9	S-6 0.5'	Total/NA	Solid	8015 NM	
880-10893-10	S-7 0.5'	Total/NA	Solid	8015 NM	
880-10893-11	S-8 0.5'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 18572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-1	S-1 0.5'	Soluble	Solid	DI Leach	
880-10893-2	S-1 1'	Soluble	Solid	DI Leach	
880-10893-3	S-2 0.5'	Soluble	Solid	DI Leach	
880-10893-4	S-2 1'	Soluble	Solid	DI Leach	
880-10893-5	S-3 0.5'	Soluble	Solid	DI Leach	
880-10893-6	S-3 1'	Soluble	Solid	DI Leach	
880-10893-7	S-4 0.5'	Soluble	Solid	DI Leach	
880-10893-8	S-5 0.5'	Soluble	Solid	DI Leach	
880-10893-9	S-6 0.5'	Soluble	Solid	DI Leach	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

HPLC/IC (Continued)

Leach Batch: 18572 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-10	S-7 0.5'	Soluble	Solid	DI Leach	
880-10893-11	S-8 0.5'	Soluble	Solid	DI Leach	
MB 880-18572/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-18572/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-18572/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-10893-1 MS	S-1 0.5'	Soluble	Solid	DI Leach	
880-10893-1 MSD	S-1 0.5'	Soluble	Solid	DI Leach	
880-10893-11 MS	S-8 0.5'	Soluble	Solid	DI Leach	
880-10893-11 MSD	S-8 0.5'	Soluble	Solid	DI Leach	

Analysis Batch: 18733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10893-1	S-1 0.5'	Soluble	Solid	300.0	18572
880-10893-2	S-1 1'	Soluble	Solid	300.0	18572
880-10893-3	S-2 0.5'	Soluble	Solid	300.0	18572
880-10893-4	S-2 1'	Soluble	Solid	300.0	18572
880-10893-5	S-3 0.5'	Soluble	Solid	300.0	18572
880-10893-6	S-3 1'	Soluble	Solid	300.0	18572
880-10893-7	S-4 0.5'	Soluble	Solid	300.0	18572
880-10893-8	S-5 0.5'	Soluble	Solid	300.0	18572
880-10893-9	S-6 0.5'	Soluble	Solid	300.0	18572
880-10893-10	S-7 0.5'	Soluble	Solid	300.0	18572
880-10893-11	S-8 0.5'	Soluble	Solid	300.0	18572
MB 880-18572/1-A	Method Blank	Soluble	Solid	300.0	18572
LCS 880-18572/2-A	Lab Control Sample	Soluble	Solid	300.0	18572
LCSD 880-18572/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	18572
880-10893-1 MS	S-1 0.5'	Soluble	Solid	300.0	18572
880-10893-1 MSD	S-1 0.5'	Soluble	Solid	300.0	18572
880-10893-11 MS	S-8 0.5'	Soluble	Solid	300.0	18572
880-10893-11 MSD	S-8 0.5'	Soluble	Solid	300.0	18572

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Client Sample ID: S-1 0.5'

Date Collected: 02/01/22 13:20
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10893-1
Matrix: Solid

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	18464	02/03/22 09:51	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18466	02/04/22 08:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18770	02/07/22 15:39	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18410	02/02/22 15:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18623	02/06/22 00:37	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	18572	02/04/22 12:49	CH	XEN MID
Soluble	Analysis	300.0		1			18733	02/09/22 22:08	CH	XEN MID

Client Sample ID: S-1 1'

Date Collected: 02/01/22 13:21
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10893-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	18464	02/03/22 09:51	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18466	02/04/22 08:22	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18770	02/07/22 15:39	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	18410	02/02/22 15:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18623	02/06/22 01:39	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	18572	02/04/22 12:49	CH	XEN MID
Soluble	Analysis	300.0		1			18733	02/09/22 22:23	CH	XEN MID

Client Sample ID: S-2 0.5'

Date Collected: 02/01/22 13:22
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10893-3
Matrix: Solid

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	18464	02/03/22 09:51	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18466	02/04/22 08:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18770	02/07/22 15:39	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18410	02/02/22 15:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18623	02/06/22 02:00	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18572	02/04/22 12:49	CH	XEN MID
Soluble	Analysis	300.0		1			18733	02/09/22 22:27	CH	XEN MID

Client Sample ID: S-2 1'

Date Collected: 02/01/22 13:23
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10893-4
Matrix: Solid

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	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 02:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18618	02/04/22 16:59	MR	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Client Sample ID: S-2 1'

Date Collected: 02/01/22 13:23
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10893-4
Matrix: Solid

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			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18410	02/02/22 15:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18623	02/06/22 02:21	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	18572	02/04/22 12:49	CH	XEN MID
Soluble	Analysis	300.0		1			18733	02/09/22 22:32	CH	XEN MID

Client Sample ID: S-3 0.5'

Date Collected: 02/01/22 13:24
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10893-5
Matrix: Solid

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	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 03:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18770	02/07/22 15:39	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18779	02/07/22 17:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18806	02/08/22 15:47	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	18572	02/04/22 12:49	CH	XEN MID
Soluble	Analysis	300.0		1			18733	02/09/22 22:37	CH	XEN MID

Client Sample ID: S-3 1'

Date Collected: 02/01/22 13:25
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10893-6
Matrix: Solid

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	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 03:37	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18770	02/07/22 15:39	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	18779	02/07/22 17:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18806	02/08/22 16:08	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	18572	02/04/22 12:49	CH	XEN MID
Soluble	Analysis	300.0		1			18733	02/09/22 22:52	CH	XEN MID

Client Sample ID: S-4 0.5'

Date Collected: 02/01/22 13:26
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10893-7
Matrix: Solid

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	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 04:03	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18770	02/07/22 15:39	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18410	02/02/22 15:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18623	02/06/22 03:22	AJ	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Client Sample ID: S-4 0.5'

Date Collected: 02/01/22 13:26
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10893-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	18572	02/04/22 12:49	CH	XEN MID
Soluble	Analysis	300.0		1			18733	02/09/22 22:57	CH	XEN MID

Client Sample ID: S-5 0.5'

Date Collected: 02/01/22 13:28
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10893-8
Matrix: Solid

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	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 04:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18770	02/07/22 15:39	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	18410	02/02/22 15:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18623	02/06/22 03:42	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	18572	02/04/22 12:49	CH	XEN MID
Soluble	Analysis	300.0		1			18733	02/09/22 23:01	CH	XEN MID

Client Sample ID: S-6 0.5'

Date Collected: 02/01/22 13:30
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10893-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 04:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18770	02/07/22 15:39	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18779	02/07/22 17:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18806	02/08/22 16:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18572	02/04/22 12:49	CH	XEN MID
Soluble	Analysis	300.0		1			18733	02/09/22 23:06	CH	XEN MID

Client Sample ID: S-7 0.5'

Date Collected: 02/01/22 13:32
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10893-10
Matrix: Solid

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	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 05:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18770	02/07/22 15:39	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18410	02/02/22 15:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18623	02/06/22 04:23	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	18572	02/04/22 12:49	CH	XEN MID
Soluble	Analysis	300.0		1			18733	02/09/22 23:11	CH	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Client Sample ID: S-8 0.5'
Date Collected: 02/01/22 13:34
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10893-11
Matrix: Solid

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	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 05:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18770	02/07/22 15:39	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18410	02/02/22 15:57	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18623	02/06/22 05:04	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	18572	02/04/22 12:49	CH	XEN MID
Soluble	Analysis	300.0		1			18733	02/09/22 23:16	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-10893-1
Project/Site: SD 19 CTB - Waterline SDG: 22-0105-01

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	T104704400-21-22	06-30-22

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

Method Summary

Client: Larson & Associates, Inc. Job ID: 880-10893-1
Project/Site: SD 19 CTB - Waterline SDG: 22-0105-01

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
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: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Waterline

Job ID: 880-10893-1
SDG: 22-0105-01

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-10893-1	S-1 0.5'	Solid	02/01/22 13:20	02/02/22 11:10
880-10893-2	S-1 1'	Solid	02/01/22 13:21	02/02/22 11:10
880-10893-3	S-2 0.5'	Solid	02/01/22 13:22	02/02/22 11:10
880-10893-4	S-2 1'	Solid	02/01/22 13:23	02/02/22 11:10
880-10893-5	S-3 0.5'	Solid	02/01/22 13:24	02/02/22 11:10
880-10893-6	S-3 1'	Solid	02/01/22 13:25	02/02/22 11:10
880-10893-7	S-4 0.5'	Solid	02/01/22 13:26	02/02/22 11:10
880-10893-8	S-5 0.5'	Solid	02/01/22 13:28	02/02/22 11:10
880-10893-9	S-6 0.5'	Solid	02/01/22 13:30	02/02/22 11:10
880-10893-10	S-7 0.5'	Solid	02/01/22 13:32	02/02/22 11:10
880-10893-11	S-8 0.5'	Solid	02/01/22 13:34	02/02/22 11:10

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No. 2448

10893

CHAIN-OF-CUSTODY

2/10/2022

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 202
Midland, TX 79701
432-687-0901

DATE: 2/2/2022 PAGE 1 OF 1

PO#: _____ LAB WORK ORDER#: _____

PROJECT LOCATION OR NAME: SD 19 CTB - WATERLINE

LAI PROJECT #: 22-0105-01 COLLECTOR: DSG/RN

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST/NM

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH ☐ | ICE | UNPRESERVED

ANALYSES: BTEX ☒ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | OIL - MOD 8015 ☒ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 NaOH	ICE	UNPRESERVED	ANALYSES	FIELD NOTES
S-1 0.5'		2/1/22	1320	S	1				X		X	
S-1 1'			1321									
S-2 0.5'			1322									
S-2 1'			1323									
S-3 0.5'			1324									
S-3 1'			1325									
S-4 0.5'			1326									
S-5 0.5'			1328									
S-6 0.5'			1330									
S-7 0.5'			1332									
S-8 0.5'			1334									

TOTAL 11

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) 2/2/2022 1110 DATE/TIME RECEIVED BY: (Signature) 2/2/22

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

LABORATORY: XENCO

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: -8.9/-8.9 THERM#: IR8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

880-10893 Chain of Custody

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Received by OCD: 8/23/2023 10:56:44 AM

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Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-10893-1
SDG Number: 22-0105-01

Login Number: 10893
List Number: 1
Creator: Kramer, Jessica

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").	N/A	

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ANALYTICAL REPORT

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

Laboratory Job ID: 880-12309-1
Laboratory Sample Delivery Group: 22-0105-01
Client Project/Site: SD 19 CTB Water Line

For:
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
3/25/2022 11:50:40 AM

Holly Taylor, Project Manager
(806)794-1296
holly.taylor@eurofinset.com

LINKS

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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.

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Laboratory Job ID: 880-12309-1
SDG: 22-0105-01

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-12309-1
Project/Site: SD 19 CTB Water Line SDG: 22-0105-01

Qualifiers

GC VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery 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.

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: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

Job ID: 880-12309-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-12309-1

Receipt
The samples were received on 3/10/2022 3:05 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 0.1°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-21733 and analytical batch 880-21907 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with preparation batch 880-21732 and analytical batch 880-21846 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Toluene, Ethylbenzene, m,p-Xylenes, o-Xylene and Xylenes, Total in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

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: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-21371 and analytical batch 880-21357 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-21371/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-21160 and analytical batch 880-21379 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28)

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-12079-A-1-F MS) and (880-12079-A-1-G MSD). Evidence of matrix interferences is not obvious.

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: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

Client Sample ID: S-3,1

Date Collected: 03/09/22 08:50
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12309-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F1	0.00200		mg/Kg		03/17/22 13:09	03/18/22 21:05	1
Toluene	<0.00200	U F1	0.00200		mg/Kg		03/17/22 13:09	03/18/22 21:05	1
Ethylbenzene	<0.00200	U F1	0.00200		mg/Kg		03/17/22 13:09	03/18/22 21:05	1
m,p-Xylenes	<0.00399	U F1	0.00399		mg/Kg		03/17/22 13:09	03/18/22 21:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/17/22 13:09	03/18/22 21:05	1
Xylenes, Total	<0.00399	U F1	0.00399		mg/Kg		03/17/22 13:09	03/18/22 21:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*03/17/22 13:09*	*03/18/22 21:05*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*03/17/22 13:09*	*03/18/22 21:05*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/18/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/14/22 08:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U F1	49.8		mg/Kg		03/11/22 09:52	03/12/22 06:13	1
Diesel Range Organics (Over C10-C28)	<49.8	U F1	49.8		mg/Kg		03/11/22 09:52	03/12/22 06:13	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/11/22 09:52	03/12/22 06:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*123*		*70 - 130*	*03/11/22 09:52*	*03/12/22 06:13*	*1*
o-Terphenyl (Surr)	*124*		*70 - 130*	*03/11/22 09:52*	*03/12/22 06:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.9**		4.99		mg/Kg			03/24/22 20:34	1

Client Sample ID: S-3,3

Date Collected: 03/09/22 08:51
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12309-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/17/22 13:09	03/18/22 21:26	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/17/22 13:09	03/18/22 21:26	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/17/22 13:09	03/18/22 21:26	1
m,p-Xylenes	<0.00397	U	0.00397		mg/Kg		03/17/22 13:09	03/18/22 21:26	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/17/22 13:09	03/18/22 21:26	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/17/22 13:09	03/18/22 21:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/17/22 13:09*	*03/18/22 21:26*	*1*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*	*03/17/22 13:09*	*03/18/22 21:26*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

Client Sample ID: S-3,3
Date Collected: 03/09/22 08:51
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12309-2
Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/18/22 17:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/11/22 10:00	03/11/22 20:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		03/11/22 10:00	03/11/22 20:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/11/22 10:00	03/11/22 20:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*94*		*70 - 130*	*03/11/22 10:00*	*03/11/22 20:05*	*1*
o-Terphenyl (Surr)	*105*		*70 - 130*	*03/11/22 10:00*	*03/11/22 20:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98		mg/Kg			03/24/22 21:00	1

Client Sample ID: S-3,5
Date Collected: 03/09/22 08:52
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12309-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/17/22 13:09	03/18/22 21:47	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/17/22 13:09	03/18/22 21:47	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/17/22 13:09	03/18/22 21:47	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		03/17/22 13:09	03/18/22 21:47	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/17/22 13:09	03/18/22 21:47	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/17/22 13:09	03/18/22 21:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*03/17/22 13:09*	*03/18/22 21:47*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*03/17/22 13:09*	*03/18/22 21:47*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/18/22 17:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/14/22 08:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/11/22 10:00	03/11/22 20:26	1
Diesel Range Organics (Over C10-C28)	<49.8	U *1	49.8		mg/Kg		03/11/22 10:00	03/11/22 20:26	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

Client Sample ID: S-3,5
Date Collected: 03/09/22 08:52
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12309-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/11/22 10:00	03/11/22 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*92*		*70 - 130*	*03/11/22 10:00*	*03/11/22 20:26*	*1*
o-Terphenyl (Surr)	*101*		*70 - 130*	*03/11/22 10:00*	*03/11/22 20:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/24/22 21:09	1

Client Sample ID: S-3,10
Date Collected: 03/09/22 08:53
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12309-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/18/22 16:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/18/22 16:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/18/22 16:48	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		03/18/22 08:00	03/18/22 16:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/18/22 16:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/18/22 08:00	03/18/22 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/18/22 08:00*	*03/18/22 16:48*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/18/22 08:00*	*03/18/22 16:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/18/22 17:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:36	03/15/22 17:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/14/22 08:36	03/15/22 17:30	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/14/22 08:36	03/15/22 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*93*		*70 - 130*	*03/14/22 08:36*	*03/15/22 17:30*	*1*
o-Terphenyl (Surr)	*95*		*70 - 130*	*03/14/22 08:36*	*03/15/22 17:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.51**		4.95		mg/Kg			03/24/22 21:18	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-12309-1	S-3,1	92	112
880-12309-1 MS	S-3,1	96	93
880-12309-1 MSD	S-3,1	105	94
880-12309-2	S-3,3	104	119
880-12309-3	S-3,5	97	114
880-12309-4	S-3,10	105	109
880-12543-A-2-A MS	Matrix Spike	306 S1+	101
880-12543-A-2-B MSD	Matrix Spike Duplicate	252 S1+	107
LCS 880-21732/1-A	Lab Control Sample	101	110
LCS 880-21733/1-A	Lab Control Sample	97	105
LCSD 880-21732/2-A	Lab Control Sample Dup	102	110
LCSD 880-21733/2-A	Lab Control Sample Dup	100	98
MB 880-21732/5-A	Method Blank	101	104
MB 880-21733/5-A	Method Blank	103	103

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**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-12079-A-1-F MS	Matrix Spike	45 S1-	8 S1-
880-12079-A-1-G MSD	Matrix Spike Duplicate	50 S1-	9 S1-
880-12309-1	S-3,1	123	124
880-12309-1 MS	S-3,1	106	91
880-12309-1 MSD	S-3,1	103	89
880-12309-2	S-3,3	94	105
880-12309-3	S-3,5	92	101
880-12309-4	S-3,10	93	95
880-12311-A-1-B MS	Matrix Spike	103	96
880-12311-A-1-C MSD	Matrix Spike Duplicate	106	96
LCS 880-21371/2-A	Lab Control Sample	110	97
LCS 880-21467/2-A	Lab Control Sample	97	105
LCSD 880-21371/3-A	Lab Control Sample Dup	132 S1+	120
LCSD 880-21467/3-A	Lab Control Sample Dup	104	110
MB 880-21371/1-A	Method Blank	125	126
MB 880-21467/1-A	Method Blank	107	117

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-12309-1
Project/Site: SD 19 CTB Water Line SDG: 22-0105-01

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)								
LCS 880-21160/2-A	Lab Control Sample	84	89								
LCSD 880-21160/3-A	Lab Control Sample Dup	107	115								
MB 880-21160/1-A	Method Blank	100	114								

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-21732/5-A
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21732

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 10:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 10:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 10:33	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/18/22 08:00	03/18/22 10:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 10:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/18/22 08:00	03/18/22 10:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/18/22 08:00*	*03/18/22 10:33*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/18/22 08:00*	*03/18/22 10:33*	*1*

Lab Sample ID: LCS 880-21732/1-A
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21732

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09946		mg/Kg		99	70 - 130		
Toluene			0.100	0.09811		mg/Kg		98	70 - 130		
Ethylbenzene			0.100	0.09914		mg/Kg		99	70 - 130		
m,p-Xylenes			0.200	0.2039		mg/Kg		102	70 - 130		
o-Xylene			0.100	0.1001		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: LCSD 880-21732/2-A
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21732

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09832		mg/Kg		98	70 - 130	1	35
Toluene			0.100	0.09691		mg/Kg		97	70 - 130	1	35
Ethylbenzene			0.100	0.09797		mg/Kg		98	70 - 130	1	35
m,p-Xylenes			0.200	0.2022		mg/Kg		101	70 - 130	1	35
o-Xylene			0.100	0.09968		mg/Kg		100	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 880-12543-A-2-A MS
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21732

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	0.00630		0.0990	0.08332		mg/Kg		78	70 - 130		
Toluene	0.341	F1	0.0990	0.8502	E F1	mg/Kg		514	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

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

Lab Sample ID: 880-12543-A-2-A MS
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21732

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	0.148	F1	0.0990	0.3497	F1	mg/Kg		204	70 - 130
m,p-Xylenes	1.52	E	0.198	2.444	E 4	mg/Kg		469	70 - 130
o-Xylene	0.383	F1	0.0990	0.7030	E F1	mg/Kg		323	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*306*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-12543-A-2-B MSD
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 21732

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.00630		0.100	0.09134		mg/Kg		85	70 - 130	9	35
Toluene	0.341	F1	0.100	1.085	E F1	mg/Kg		742	70 - 130	24	35
Ethylbenzene	0.148	F1	0.100	0.4097	E F1	mg/Kg		262	70 - 130	16	35
m,p-Xylenes	1.52	E	0.200	3.003	E 4	mg/Kg		742	70 - 130	21	35
o-Xylene	0.383	F1	0.100	0.8516	E F1	mg/Kg		468	70 - 130	19	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*252*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: MB 880-21733/5-A
Matrix: Solid
Analysis Batch: 21907

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21733

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/17/22 13:09	03/18/22 20:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/17/22 13:09	03/18/22 20:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/17/22 13:09	03/18/22 20:43	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/17/22 13:09	03/18/22 20:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/17/22 13:09	03/18/22 20:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/17/22 13:09	03/18/22 20:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/17/22 13:09*	*03/18/22 20:43*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/17/22 13:09*	*03/18/22 20:43*	*1*

Lab Sample ID: LCS 880-21733/1-A
Matrix: Solid
Analysis Batch: 21907

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21733

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09847		mg/Kg		98	70 - 130
Toluene	0.100	0.09238		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.09551		mg/Kg		96	70 - 130
m,p-Xylenes	0.200	0.1977		mg/Kg		99	70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

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

Lab Sample ID: LCS 880-21733/1-A
Matrix: Solid
Analysis Batch: 21907

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21733

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
o-Xylene			0.100	0.09676		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-21733/2-A
Matrix: Solid
Analysis Batch: 21907

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21733

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08554		mg/Kg		86	70 - 130	14	35
Toluene			0.100	0.09210		mg/Kg		92	70 - 130	0	35
Ethylbenzene			0.100	0.09813		mg/Kg		98	70 - 130	3	35
m,p-Xylenes			0.200	0.2075		mg/Kg		104	70 - 130	5	35
o-Xylene			0.100	0.1022		mg/Kg		102	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 880-12309-1 MS
Matrix: Solid
Analysis Batch: 21907

Client Sample ID: S-3,1
Prep Type: Total/NA
Prep Batch: 21733

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U F1	0.100	0.06063	F1	mg/Kg		61	70 - 130		
Toluene	<0.00200	U F1	0.100	0.06296	F1	mg/Kg		63	70 - 130		
Ethylbenzene	<0.00200	U F1	0.100	0.06414	F1	mg/Kg		64	70 - 130		
m,p-Xylenes	<0.00399	U F1	0.200	0.1365	F1	mg/Kg		68	70 - 130		
o-Xylene	<0.00200	U	0.100	0.06952		mg/Kg		70	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: 880-12309-1 MSD
Matrix: Solid
Analysis Batch: 21907

Client Sample ID: S-3,1
Prep Type: Total/NA
Prep Batch: 21733

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.0998	0.06647	F1	mg/Kg		67	70 - 130	9	35
Toluene	<0.00200	U F1	0.0998	0.06842	F1	mg/Kg		69	70 - 130	8	35
Ethylbenzene	<0.00200	U F1	0.0998	0.06932	F1	mg/Kg		69	70 - 130	8	35
m,p-Xylenes	<0.00399	U F1	0.200	0.1472		mg/Kg		74	70 - 130	8	35
o-Xylene	<0.00200	U	0.0998	0.07573		mg/Kg		76	70 - 130	9	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

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

Lab Sample ID: 880-12309-1 MSD
Matrix: Solid
Analysis Batch: 21907

Client Sample ID: S-3,1
Prep Type: Total/NA
Prep Batch: 21733

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

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

Lab Sample ID: MB 880-21160/1-A
Matrix: Solid
Analysis Batch: 21379

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21160

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/08/22 14:48	03/11/22 11:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/08/22 14:48	03/11/22 11:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/08/22 14:48	03/11/22 11:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	100		70 - 130	03/08/22 14:48	03/11/22 11:04	1
o-Terphenyl (Surr)	114		70 - 130	03/08/22 14:48	03/11/22 11:04	1

Lab Sample ID: LCS 880-21160/2-A
Matrix: Solid
Analysis Batch: 21379

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21160

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	816.9		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	717.8		mg/Kg		72	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	84		70 - 130
o-Terphenyl (Surr)	89		70 - 130

Lab Sample ID: LCSD 880-21160/3-A
Matrix: Solid
Analysis Batch: 21379

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21160

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1003		mg/Kg		100	70 - 130	20	20
Diesel Range Organics (Over C10-C28)			1000	923.7	*1	mg/Kg		92	70 - 130	25	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	107		70 - 130
o-Terphenyl (Surr)	115		70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

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

Lab Sample ID: 880-12079-A-1-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21379 — **Prep Batch: 21160**

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	998	1066		mg/Kg		105	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U *1	998	1108		mg/Kg		106	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*45*	*S1-*	*70 - 130*
o-Terphenyl (Surr)	*8*	*S1-*	*70 - 130*

Lab Sample ID: 880-12079-A-1-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21379 — **Prep Batch: 21160**

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	998	1242		mg/Kg		122	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	<49.9	U *1	998	1339		mg/Kg		130	70 - 130	19	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*50*	*S1-*	*70 - 130*
o-Terphenyl (Surr)	*9*	*S1-*	*70 - 130*

Lab Sample ID: MB 880-21371/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21357 — **Prep Batch: 21371**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/11/22 09:52	03/12/22 05:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/11/22 09:52	03/12/22 05:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/11/22 09:52	03/12/22 05:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*125*		*70 - 130*	*03/11/22 09:52*	*03/12/22 05:08*	*1*
o-Terphenyl (Surr)	*126*		*70 - 130*	*03/11/22 09:52*	*03/12/22 05:08*	*1*

Lab Sample ID: LCS 880-21371/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21357 — **Prep Batch: 21371**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	848.4		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1009		mg/Kg		101	70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

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

Lab Sample ID: LCS 880-21371/2-A
Matrix: Solid
Analysis Batch: 21357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21371

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	110		70 - 130
o-Terphenyl (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-21371/3-A
Matrix: Solid
Analysis Batch: 21357

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21371

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	955.3		mg/Kg		96	70 - 130	12	20
Diesel Range Organics (Over C10-C28)			1000	1220		mg/Kg		122	70 - 130	19	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	132	S1+	70 - 130
o-Terphenyl (Surr)	120		70 - 130

Lab Sample ID: 880-12309-1 MS
Matrix: Solid
Analysis Batch: 21357

Client Sample ID: S-3,1
Prep Type: Total/NA
Prep Batch: 21371

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U F1	998	1444	F1	mg/Kg		141	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U F1	998	1460	F1	mg/Kg		146	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	106		70 - 130
o-Terphenyl (Surr)	91		70 - 130

Lab Sample ID: 880-12309-1 MSD
Matrix: Solid
Analysis Batch: 21357

Client Sample ID: S-3,1
Prep Type: Total/NA
Prep Batch: 21371

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	<49.8	U F1	998	1422	F1	mg/Kg		139	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.8	U F1	998	1426	F1	mg/Kg		143	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane (Surr)	103		70 - 130
o-Terphenyl (Surr)	89		70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

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

Lab Sample ID: MB 880-21467/1-A
Matrix: Solid
Analysis Batch: 21609

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21467

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 10:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 10:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:36	03/15/22 10:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*107*		*70 - 130*	*03/14/22 08:36*	*03/15/22 10:25*	*1*
o-Terphenyl (Surr)	*117*		*70 - 130*	*03/14/22 08:36*	*03/15/22 10:25*	*1*

Lab Sample ID: LCS 880-21467/2-A
Matrix: Solid
Analysis Batch: 21609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21467

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	837.3		mg/Kg		84	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	918.7		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*97*		*70 - 130*
o-Terphenyl (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-21467/3-A
Matrix: Solid
Analysis Batch: 21609

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21467

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	867.7		mg/Kg		87	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1045		mg/Kg		104	70 - 130	13	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*104*		*70 - 130*
o-Terphenyl (Surr)	*110*		*70 - 130*

Lab Sample ID: 880-12311-A-1-B MS
Matrix: Solid
Analysis Batch: 21609

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21467

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	967.9		mg/Kg		95	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	998	952.5		mg/Kg		95	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

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

Lab Sample ID: 880-12311-A-1-B MS
Matrix: Solid
Analysis Batch: 21609

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21467

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	103		70 - 130
o-Terphenyl (Surr)	96		70 - 130

Lab Sample ID: 880-12311-A-1-C MSD
Matrix: Solid
Analysis Batch: 21609

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 21467

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	<49.8	U	998	1045		mg/Kg		103	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<49.8	U	998	976.3		mg/Kg		98	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane (Surr)	106		70 - 130
o-Terphenyl (Surr)	96		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-21600/1-A
Matrix: Solid
Analysis Batch: 22122

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			03/24/22 20:07	1

Lab Sample ID: LCS 880-21600/2-A
Matrix: Solid
Analysis Batch: 22122

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	271.9		mg/Kg		109	90 - 110		

Lab Sample ID: LCSD 880-21600/3-A
Matrix: Solid
Analysis Batch: 22122

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	271.2		mg/Kg		108	90 - 110	0	20

Lab Sample ID: 880-12309-1 MS
Matrix: Solid
Analysis Batch: 22122

Client Sample ID: S-3,1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	11.9		250	283.5		mg/Kg		109	90 - 110		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-12309-1 MSD
Matrix: Solid
Analysis Batch: 22122

Client Sample ID: S-3,1
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	11.9		250	280.2		mg/Kg		108	90 - 110	1	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

GC VOA

Prep Batch: 21732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12309-4	S-3,10	Total/NA	Solid	5035	
MB 880-21732/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-21732/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21732/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12543-A-2-A MS	Matrix Spike	Total/NA	Solid	5035	
880-12543-A-2-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 21733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12309-1	S-3,1	Total/NA	Solid	5035	
880-12309-2	S-3,3	Total/NA	Solid	5035	
880-12309-3	S-3,5	Total/NA	Solid	5035	
MB 880-21733/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-21733/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21733/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12309-1 MS	S-3,1	Total/NA	Solid	5035	
880-12309-1 MSD	S-3,1	Total/NA	Solid	5035	

Analysis Batch: 21846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12309-4	S-3,10	Total/NA	Solid	8021B	21732
MB 880-21732/5-A	Method Blank	Total/NA	Solid	8021B	21732
LCS 880-21732/1-A	Lab Control Sample	Total/NA	Solid	8021B	21732
LCSD 880-21732/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21732
880-12543-A-2-A MS	Matrix Spike	Total/NA	Solid	8021B	21732
880-12543-A-2-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	21732

Analysis Batch: 21907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12309-1	S-3,1	Total/NA	Solid	8021B	21733
880-12309-2	S-3,3	Total/NA	Solid	8021B	21733
880-12309-3	S-3,5	Total/NA	Solid	8021B	21733
MB 880-21733/5-A	Method Blank	Total/NA	Solid	8021B	21733
LCS 880-21733/1-A	Lab Control Sample	Total/NA	Solid	8021B	21733
LCSD 880-21733/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21733
880-12309-1 MS	S-3,1	Total/NA	Solid	8021B	21733
880-12309-1 MSD	S-3,1	Total/NA	Solid	8021B	21733

Analysis Batch: 21927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12309-1	S-3,1	Total/NA	Solid	Total BTEX	
880-12309-2	S-3,3	Total/NA	Solid	Total BTEX	
880-12309-3	S-3,5	Total/NA	Solid	Total BTEX	
880-12309-4	S-3,10	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 21160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12309-2	S-3,3	Total/NA	Solid	8015NM Prep	
880-12309-3	S-3,5	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

GC Semi VOA (Continued)

Prep Batch: 21160 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-21160/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-21160/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-21160/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12079-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-12079-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12309-1	S-3,1	Total/NA	Solid	8015B NM	21371
MB 880-21371/1-A	Method Blank	Total/NA	Solid	8015B NM	21371
LCS 880-21371/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	21371
LCSD 880-21371/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	21371
880-12309-1 MS	S-3,1	Total/NA	Solid	8015B NM	21371
880-12309-1 MSD	S-3,1	Total/NA	Solid	8015B NM	21371

Prep Batch: 21371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12309-1	S-3,1	Total/NA	Solid	8015NM Prep	
MB 880-21371/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-21371/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-21371/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12309-1 MS	S-3,1	Total/NA	Solid	8015NM Prep	
880-12309-1 MSD	S-3,1	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12309-2	S-3,3	Total/NA	Solid	8015B NM	21160
880-12309-3	S-3,5	Total/NA	Solid	8015B NM	21160
MB 880-21160/1-A	Method Blank	Total/NA	Solid	8015B NM	21160
LCS 880-21160/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	21160
LCSD 880-21160/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	21160
880-12079-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	21160
880-12079-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	21160

Prep Batch: 21467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12309-4	S-3,10	Total/NA	Solid	8015NM Prep	
MB 880-21467/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-21467/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-21467/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12311-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-12311-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12309-1	S-3,1	Total/NA	Solid	8015 NM	
880-12309-2	S-3,3	Total/NA	Solid	8015 NM	
880-12309-3	S-3,5	Total/NA	Solid	8015 NM	
880-12309-4	S-3,10	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

GC Semi VOA

Analysis Batch: 21609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12309-4	S-3,10	Total/NA	Solid	8015B NM	21467
MB 880-21467/1-A	Method Blank	Total/NA	Solid	8015B NM	21467
LCS 880-21467/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	21467
LCSD 880-21467/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	21467
880-12311-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	21467
880-12311-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	21467

HPLC/IC

Leach Batch: 21600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12309-1	S-3,1	Soluble	Solid	DI Leach	
880-12309-2	S-3,3	Soluble	Solid	DI Leach	
880-12309-3	S-3,5	Soluble	Solid	DI Leach	
880-12309-4	S-3,10	Soluble	Solid	DI Leach	
MB 880-21600/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21600/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21600/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-12309-1 MS	S-3,1	Soluble	Solid	DI Leach	
880-12309-1 MSD	S-3,1	Soluble	Solid	DI Leach	

Analysis Batch: 22122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12309-1	S-3,1	Soluble	Solid	300.0	21600
880-12309-2	S-3,3	Soluble	Solid	300.0	21600
880-12309-3	S-3,5	Soluble	Solid	300.0	21600
880-12309-4	S-3,10	Soluble	Solid	300.0	21600
MB 880-21600/1-A	Method Blank	Soluble	Solid	300.0	21600
LCS 880-21600/2-A	Lab Control Sample	Soluble	Solid	300.0	21600
LCSD 880-21600/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21600
880-12309-1 MS	S-3,1	Soluble	Solid	300.0	21600
880-12309-1 MSD	S-3,1	Soluble	Solid	300.0	21600

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

Client Sample ID: S-3,1
Date Collected: 03/09/22 08:50
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12309-1
Matrix: Solid

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	21733	03/17/22 13:09	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21907	03/18/22 21:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21927	03/18/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21471	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	21371	03/11/22 09:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21357	03/12/22 06:13	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21600	03/15/22 08:29	CH	XEN MID
Soluble	Analysis	300.0		1			22122	03/24/22 20:34	CH	XEN MID

Client Sample ID: S-3,3
Date Collected: 03/09/22 08:51
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12309-2
Matrix: Solid

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	21733	03/17/22 13:09	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21907	03/18/22 21:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21927	03/18/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21471	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21160	03/11/22 10:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21379	03/11/22 20:05	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21600	03/15/22 08:29	CH	XEN MID
Soluble	Analysis	300.0		1			22122	03/24/22 21:00	CH	XEN MID

Client Sample ID: S-3,5
Date Collected: 03/09/22 08:52
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12309-3
Matrix: Solid

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	21733	03/17/22 13:09	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21907	03/18/22 21:47	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21927	03/18/22 17:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21471	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	21160	03/11/22 10:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21379	03/11/22 20:26	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21600	03/15/22 08:29	CH	XEN MID
Soluble	Analysis	300.0		1			22122	03/24/22 21:09	CH	XEN MID

Client Sample ID: S-3,10
Date Collected: 03/09/22 08:53
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12309-4
Matrix: Solid

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	21732	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 16:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21927	03/18/22 17:18	AJ	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

Client Sample ID: S-3,10
Date Collected: 03/09/22 08:53
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12309-4
Matrix: Solid

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			21471	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 17:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21600	03/15/22 08:29	CH	XEN MID
Soluble	Analysis	300.0		1			22122	03/24/22 21:18	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-12309-1
Project/Site: SD 19 CTB Water Line SDG: 22-0105-01

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	T104704400-21-22	06-30-22

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

Method Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

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
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: Larson & Associates, Inc.
Project/Site: SD 19 CTB Water Line

Job ID: 880-12309-1
SDG: 22-0105-01

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-12309-1	S-3,1	Solid	03/09/22 08:50	03/10/22 15:05
880-12309-2	S-3,3	Solid	03/09/22 08:51	03/10/22 15:05
880-12309-3	S-3,5	Solid	03/09/22 08:52	03/10/22 15:05
880-12309-4	S-3,10	Solid	03/09/22 08:53	03/10/22 15:05

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12309 LD
~~12297~~

No. 2461

CHAIN-OF-CUSTODY

3/25/2022

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 202
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 3/10/2022 PAGE 1 OF 1

PO#: _____ LAB WORK ORDER#: _____

PROJECT LOCATION OR NAME: SD 19 CTB Water line

LAI PROJECT #: 22-0105-01 COLLECTOR: JP & JR

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST/NM

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH ☐ | ICE | UNPRESSERVED

ANALYSES: BTEX ☒ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | OIL - MOD 8015 ☒ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☒	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
S-3, 1		3/9/22	0850	S	1				X		X		X	X	X													X		
S-3, 3		"	0851	"	"				"		"		"	"	"													"		
S-3, 5		"	0852	"	"				"		"		"	"	"													"		
S-3, 10		"	0853	"	"				"		"		"	"	"													"		
TOTAL																														

880-12309 Chain of Custody

RELINQUISHED BY:(Signature) DATE/TIME 3/10/22 1505 RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

LABORATORY: Xenco

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 2.1 THERM#: IR8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

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Received by OCD: 8/23/2023 10:56:44 AM

Released to Imaging: 12/5/2023 3:14:43 PM

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-12309-1
SDG Number: 22-0105-01

Login Number: 12309
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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 5/2/2023 2:23:34 PM

JOB DESCRIPTION

Salado Draw 19 CTB Water Line

JOB NUMBER

880-27757-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

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my EOL

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

Holly Taylor

Generated
5/2/2023 2:23:34 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB Water Line

Laboratory Job ID: 880-27757-1

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
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: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

Job ID: 880-27757-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-27757-1

Receipt
The samples were received on 5/1/2023 9:03 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 -1.3°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: C-1 , 1' (880-27757-1), C-2 , 1' (880-27757-2), C-3 , 1' (880-27757-3), C-4 , 1' (880-27757-4) and C-5 , 1' (880-27757-5).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: C-2 , 1' (880-27757-2). 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: (MB 880-52254/5-A). Evidence of matrix interferences is not obvious.

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: The surrogate recovery for the blank associated with preparation batch 880-52286 and analytical batch 880-52249 was outside the upper control limits.

Method 8015MOD_NM: CCV biased low however an acceptable CCV was ran within the 12 hour window therefore the data was qualified and reported.(CCV 880-52249/45)

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: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

Client Sample ID: C-1 , 1'
Lab Sample ID: 880-27757-1
Date Collected: 04/28/23 08:00 **Matrix: Solid**
Date Received: 05/01/23 09:03

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:28	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		05/01/23 09:09	05/01/23 11:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:28	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/01/23 09:09	05/01/23 11:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*70 - 130*	*05/01/23 09:09*	*05/01/23 11:28*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*05/01/23 09:09*	*05/01/23 11:28*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/01/23 15:09	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			05/02/23 10:40	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		05/01/23 10:35	05/01/23 14:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/01/23 10:35	05/01/23 14:44	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/01/23 10:35	05/01/23 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*105*		*70 - 130*	*05/01/23 10:35*	*05/01/23 14:44*	*1*
o-Terphenyl (Surr)	*111*		*70 - 130*	*05/01/23 10:35*	*05/01/23 14:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**72.7**		5.00		mg/Kg			05/01/23 22:38	1

Client Sample ID: C-2 , 1'
Lab Sample ID: 880-27757-2
Date Collected: 04/28/23 08:05 **Matrix: Solid**
Date Received: 05/01/23 09:03

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:49	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		05/01/23 09:09	05/01/23 11:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:49	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/01/23 09:09	05/01/23 11:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*05/01/23 09:09*	*05/01/23 11:49*	*1*
1,4-Difluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*05/01/23 09:09*	*05/01/23 11:49*	*1*

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

Client Sample ID: C-2 , 1'
Lab Sample ID: 880-27757-2
Date Collected: 04/28/23 08:05 **Matrix: Solid**
Date Received: 05/01/23 09:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/01/23 15:09	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			05/02/23 10:40	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		05/01/23 10:35	05/01/23 15:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/01/23 10:35	05/01/23 15:05	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/01/23 10:35	05/01/23 15:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*98*		*70 - 130*	*05/01/23 10:35*	*05/01/23 15:05*	*1*
o-Terphenyl (Surr)	*104*		*70 - 130*	*05/01/23 10:35*	*05/01/23 15:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**78.7**		5.01		mg/Kg			05/01/23 22:54	1

Client Sample ID: C-3 , 1'
Lab Sample ID: 880-27757-3
Date Collected: 04/28/23 08:10 **Matrix: Solid**
Date Received: 05/01/23 09:03

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/01/23 09:09	05/01/23 12:09	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/01/23 09:09	05/01/23 12:09	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/01/23 09:09	05/01/23 12:09	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		05/01/23 09:09	05/01/23 12:09	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/01/23 09:09	05/01/23 12:09	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/01/23 09:09	05/01/23 12:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*05/01/23 09:09*	*05/01/23 12:09*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*05/01/23 09:09*	*05/01/23 12:09*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/01/23 15:09	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			05/02/23 10:40	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		05/01/23 10:35	05/01/23 15:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/01/23 10:35	05/01/23 15:27	1

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

Client Sample ID: C-3 , 1'
Date Collected: 04/28/23 08:10
Date Received: 05/01/23 09:03

Lab Sample ID: 880-27757-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/01/23 10:35	05/01/23 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*105*		*70 - 130*	*05/01/23 10:35*	*05/01/23 15:27*	*1*
o-Terphenyl (Surr)	*111*		*70 - 130*	*05/01/23 10:35*	*05/01/23 15:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**144**		5.03		mg/Kg			05/01/23 22:59	1

Client Sample ID: C-4 , 1'
Date Collected: 04/28/23 08:15
Date Received: 05/01/23 09:03

Lab Sample ID: 880-27757-4
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/01/23 09:09	05/01/23 12:30	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/01/23 09:09	05/01/23 12:30	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/01/23 09:09	05/01/23 12:30	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		05/01/23 09:09	05/01/23 12:30	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/01/23 09:09	05/01/23 12:30	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/01/23 09:09	05/01/23 12:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*05/01/23 09:09*	*05/01/23 12:30*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*05/01/23 09:09*	*05/01/23 12:30*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			05/01/23 15:09	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			05/02/23 10:40	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		05/01/23 10:35	05/01/23 15:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/01/23 10:35	05/01/23 15:49	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/01/23 10:35	05/01/23 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*95*		*70 - 130*	*05/01/23 10:35*	*05/01/23 15:49*	*1*
o-Terphenyl (Surr)	*99*		*70 - 130*	*05/01/23 10:35*	*05/01/23 15:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**130**		4.98		mg/Kg			05/01/23 23:05	1

Client Sample Results

Client: Larson & Associates, Inc.
Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

Client Sample ID: C-5 , 1'
Lab Sample ID: 880-27757-5
Date Collected: 04/28/23 08:20
Matrix: Solid
Date Received: 05/01/23 09:03

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/01/23 09:09	05/01/23 12:50	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/01/23 09:09	05/01/23 12:50	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/01/23 09:09	05/01/23 12:50	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		05/01/23 09:09	05/01/23 12:50	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/01/23 09:09	05/01/23 12:50	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/01/23 09:09	05/01/23 12:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*05/01/23 09:09*	*05/01/23 12:50*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*05/01/23 09:09*	*05/01/23 12:50*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/01/23 15:09	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			05/02/23 10:40	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		05/01/23 10:35	05/01/23 16:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/01/23 10:35	05/01/23 16:39	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/01/23 10:35	05/01/23 16:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*125*		*70 - 130*	*05/01/23 10:35*	*05/01/23 16:39*	*1*
o-Terphenyl (Surr)	*130*		*70 - 130*	*05/01/23 10:35*	*05/01/23 16:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**145**		5.02		mg/Kg			05/01/23 23:10	1

Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-27757-1	C-1 , 1'	74	92
880-27757-1 MS	C-1 , 1'	108	104
880-27757-1 MSD	C-1 , 1'	112	102
880-27757-2	C-2 , 1'	93	67 S1-
880-27757-3	C-3 , 1'	101	82
880-27757-4	C-4 , 1'	99	78
880-27757-5	C-5 , 1'	98	72
LCS 880-52254/1-A	Lab Control Sample	114	102
LCSD 880-52254/2-A	Lab Control Sample Dup	117	104
MB 880-52254/5-A	Method Blank	68 S1-	91

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**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-27757-1	C-1 , 1'	105	111
880-27757-2	C-2 , 1'	98	104
880-27757-3	C-3 , 1'	105	111
880-27757-4	C-4 , 1'	95	99
880-27757-5	C-5 , 1'	125	130
LCS 880-52286/2-A	Lab Control Sample	98	104
LCSD 880-52286/3-A	Lab Control Sample Dup	114	120
MB 880-52286/1-A	Method Blank	113	134 S1+

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-52254/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 52252 **Prep Batch: 52254**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:06	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		05/01/23 09:09	05/01/23 11:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:06	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/01/23 09:09	05/01/23 11:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*05/01/23 09:09*	*05/01/23 11:06*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*05/01/23 09:09*	*05/01/23 11:06*	*1*

Lab Sample ID: LCS 880-52254/1-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 52252 **Prep Batch: 52254**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1073		mg/Kg		107	70 - 130		
Toluene			0.100	0.1005		mg/Kg		101	70 - 130		
Ethylbenzene			0.100	0.1067		mg/Kg		107	70 - 130		
m,p-Xylenes			0.200	0.2256		mg/Kg		113	70 - 130		
o-Xylene			0.100	0.1128		mg/Kg		113	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-52254/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 52252 **Prep Batch: 52254**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1135		mg/Kg		114	70 - 130	6	35
Toluene			0.100	0.1037		mg/Kg		104	70 - 130	3	35
Ethylbenzene			0.100	0.1111		mg/Kg		111	70 - 130	4	35
m,p-Xylenes			0.200	0.2343		mg/Kg		117	70 - 130	4	35
o-Xylene			0.100	0.1171		mg/Kg		117	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 880-27757-1 MS **Client Sample ID: C-1 , 1'**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 52252 **Prep Batch: 52254**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.100	0.1123		mg/Kg		112	70 - 130		
Toluene	<0.00200	U	0.100	0.09983		mg/Kg		99	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

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

Lab Sample ID: 880-27757-1 MS **Client Sample ID: C-1 , 1'**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 52252 **Prep Batch: 52254**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.1059		mg/Kg		105	70 - 130
m,p-Xylenes	<0.00401	U	0.201	0.2149		mg/Kg		107	70 - 130
o-Xylene	<0.00200	U	0.100	0.1042		mg/Kg		104	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 880-27757-1 MSD **Client Sample ID: C-1 , 1'**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 52252 **Prep Batch: 52254**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.09969		mg/Kg		101	70 - 130	12	35
Toluene	<0.00200	U	0.0990	0.09076		mg/Kg		92	70 - 130	10	35
Ethylbenzene	<0.00200	U	0.0990	0.09788		mg/Kg		99	70 - 130	8	35
m,p-Xylenes	<0.00401	U	0.198	0.2010		mg/Kg		102	70 - 130	7	35
o-Xylene	<0.00200	U	0.0990	0.09890		mg/Kg		100	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

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

Lab Sample ID: MB 880-52286/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 52249 **Prep Batch: 52286**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/01/23 08:35	05/01/23 10:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/01/23 08:35	05/01/23 10:23	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/01/23 08:35	05/01/23 10:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*113*		*70 - 130*	*05/01/23 08:35*	*05/01/23 10:23*	*1*
o-Terphenyl (Surr)	*134*	*S1+*	*70 - 130*	*05/01/23 08:35*	*05/01/23 10:23*	*1*

Lab Sample ID: LCS 880-52286/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 52249 **Prep Batch: 52286**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	829.8		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)			1000	764.3		mg/Kg		76	70 - 130

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

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

Lab Sample ID: LCS 880-52286/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 52249 **Prep Batch: 52286**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	98		70 - 130
o-Terphenyl (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-52286/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 52249 **Prep Batch: 52286**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	902.4		mg/Kg		90	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	899.4		mg/Kg		90	70 - 130	16	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	114		70 - 130
o-Terphenyl (Surr)	120		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-52321/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 52350

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/01/23 22:21	1

Lab Sample ID: LCS 880-52321/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 52350

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	241.0		mg/Kg		96	90 - 110		

Lab Sample ID: LCSD 880-52321/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 52350

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	241.6		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 880-27757-1 MS **Client Sample ID: C-1 , 1'**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 52350

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	72.7		250	327.6		mg/Kg		102	90 - 110		

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-27757-1 MSD **Client Sample ID: C-1 , 1'**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 52350

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	72.7		250	328.0		mg/Kg		102	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

GC VOA

Analysis Batch: 52252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27757-1	C-1 , 1'	Total/NA	Solid	8021B	52254
880-27757-2	C-2 , 1'	Total/NA	Solid	8021B	52254
880-27757-3	C-3 , 1'	Total/NA	Solid	8021B	52254
880-27757-4	C-4 , 1'	Total/NA	Solid	8021B	52254
880-27757-5	C-5 , 1'	Total/NA	Solid	8021B	52254
MB 880-52254/5-A	Method Blank	Total/NA	Solid	8021B	52254
LCS 880-52254/1-A	Lab Control Sample	Total/NA	Solid	8021B	52254
LCSD 880-52254/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	52254
880-27757-1 MS	C-1 , 1'	Total/NA	Solid	8021B	52254
880-27757-1 MSD	C-1 , 1'	Total/NA	Solid	8021B	52254

Prep Batch: 52254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27757-1	C-1 , 1'	Total/NA	Solid	5035	
880-27757-2	C-2 , 1'	Total/NA	Solid	5035	
880-27757-3	C-3 , 1'	Total/NA	Solid	5035	
880-27757-4	C-4 , 1'	Total/NA	Solid	5035	
880-27757-5	C-5 , 1'	Total/NA	Solid	5035	
MB 880-52254/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-52254/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-52254/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-27757-1 MS	C-1 , 1'	Total/NA	Solid	5035	
880-27757-1 MSD	C-1 , 1'	Total/NA	Solid	5035	

Analysis Batch: 52335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27757-1	C-1 , 1'	Total/NA	Solid	Total BTEX	
880-27757-2	C-2 , 1'	Total/NA	Solid	Total BTEX	
880-27757-3	C-3 , 1'	Total/NA	Solid	Total BTEX	
880-27757-4	C-4 , 1'	Total/NA	Solid	Total BTEX	
880-27757-5	C-5 , 1'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 52249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27757-1	C-1 , 1'	Total/NA	Solid	8015B NM	52286
880-27757-2	C-2 , 1'	Total/NA	Solid	8015B NM	52286
880-27757-3	C-3 , 1'	Total/NA	Solid	8015B NM	52286
880-27757-4	C-4 , 1'	Total/NA	Solid	8015B NM	52286
880-27757-5	C-5 , 1'	Total/NA	Solid	8015B NM	52286
MB 880-52286/1-A	Method Blank	Total/NA	Solid	8015B NM	52286
LCS 880-52286/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	52286
LCSD 880-52286/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	52286

Prep Batch: 52286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27757-1	C-1 , 1'	Total/NA	Solid	8015NM Prep	
880-27757-2	C-2 , 1'	Total/NA	Solid	8015NM Prep	
880-27757-3	C-3 , 1'	Total/NA	Solid	8015NM Prep	
880-27757-4	C-4 , 1'	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

GC Semi VOA (Continued)

Prep Batch: 52286 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27757-5	C-5 , 1'	Total/NA	Solid	8015NM Prep	
MB 880-52286/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-52286/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-52286/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 52380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27757-1	C-1 , 1'	Total/NA	Solid	8015 NM	
880-27757-2	C-2 , 1'	Total/NA	Solid	8015 NM	
880-27757-3	C-3 , 1'	Total/NA	Solid	8015 NM	
880-27757-4	C-4 , 1'	Total/NA	Solid	8015 NM	
880-27757-5	C-5 , 1'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 52321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27757-1	C-1 , 1'	Soluble	Solid	DI Leach	
880-27757-2	C-2 , 1'	Soluble	Solid	DI Leach	
880-27757-3	C-3 , 1'	Soluble	Solid	DI Leach	
880-27757-4	C-4 , 1'	Soluble	Solid	DI Leach	
880-27757-5	C-5 , 1'	Soluble	Solid	DI Leach	
MB 880-52321/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-52321/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-52321/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-27757-1 MS	C-1 , 1'	Soluble	Solid	DI Leach	
880-27757-1 MSD	C-1 , 1'	Soluble	Solid	DI Leach	

Analysis Batch: 52350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27757-1	C-1 , 1'	Soluble	Solid	300.0	52321
880-27757-2	C-2 , 1'	Soluble	Solid	300.0	52321
880-27757-3	C-3 , 1'	Soluble	Solid	300.0	52321
880-27757-4	C-4 , 1'	Soluble	Solid	300.0	52321
880-27757-5	C-5 , 1'	Soluble	Solid	300.0	52321
MB 880-52321/1-A	Method Blank	Soluble	Solid	300.0	52321
LCS 880-52321/2-A	Lab Control Sample	Soluble	Solid	300.0	52321
LCSD 880-52321/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	52321
880-27757-1 MS	C-1 , 1'	Soluble	Solid	300.0	52321
880-27757-1 MSD	C-1 , 1'	Soluble	Solid	300.0	52321

Lab Chronicle

Client: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

Client Sample ID: C-1 , 1' — Lab Sample ID: 880-27757-1

Date Collected: 04/28/23 08:00 **Matrix: Solid**
Date Received: 05/01/23 09:03

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	52254	05/01/23 09:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52252	05/01/23 11:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52335	05/01/23 15:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			52380	05/02/23 10:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	52286	05/01/23 10:35	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52249	05/01/23 14:44	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	52321	05/01/23 13:46	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52350	05/01/23 22:38	SMC	EET MID

Client Sample ID: C-2 , 1' — Lab Sample ID: 880-27757-2

Date Collected: 04/28/23 08:05 **Matrix: Solid**
Date Received: 05/01/23 09:03

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	52254	05/01/23 09:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52252	05/01/23 11:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52335	05/01/23 15:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			52380	05/02/23 10:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	52286	05/01/23 10:35	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52249	05/01/23 15:05	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	52321	05/01/23 13:46	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52350	05/01/23 22:54	SMC	EET MID

Client Sample ID: C-3 , 1' — Lab Sample ID: 880-27757-3

Date Collected: 04/28/23 08:10 **Matrix: Solid**
Date Received: 05/01/23 09:03

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	52254	05/01/23 09:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52252	05/01/23 12:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52335	05/01/23 15:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			52380	05/02/23 10:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	52286	05/01/23 10:35	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52249	05/01/23 15:27	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	52321	05/01/23 13:46	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52350	05/01/23 22:59	SMC	EET MID

Client Sample ID: C-4 , 1' — Lab Sample ID: 880-27757-4

Date Collected: 04/28/23 08:15 **Matrix: Solid**
Date Received: 05/01/23 09:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	52254	05/01/23 09:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52252	05/01/23 12:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52335	05/01/23 15:09	SM	EET MID

Lab Chronicle

Client: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

Client Sample ID: C-4 , 1' Lab Sample ID: 880-27757-4

Date Collected: 04/28/23 08:15 **Matrix: Solid**
Date Received: 05/01/23 09:03

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			52380	05/02/23 10:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	52286	05/01/23 10:35	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52249	05/01/23 15:49	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	52321	05/01/23 13:46	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52350	05/01/23 23:05	SMC	EET MID

Client Sample ID: C-5 , 1' Lab Sample ID: 880-27757-5

Date Collected: 04/28/23 08:20 **Matrix: Solid**
Date Received: 05/01/23 09:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	52254	05/01/23 09:09	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52252	05/01/23 12:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52335	05/01/23 15:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			52380	05/02/23 10:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	52286	05/01/23 10:35	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52249	05/01/23 16:39	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	52321	05/01/23 13:46	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52350	05/01/23 23:10	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

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
Total BTEX		Solid	Total BTEX

Method Summary

Client: Larson & Associates, Inc. Job ID: 880-27757-1
Project/Site: Salado Draw 19 CTB Water Line

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
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
5035	Closed System Purge and Trap	SW846	EET MID
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 MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB Water Line

Job ID: 880-27757-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-27757-1	C-1 , 1'	Solid	04/28/23 08:00	05/01/23 09:03
880-27757-2	C-2 , 1'	Solid	04/28/23 08:05	05/01/23 09:03
880-27757-3	C-3 , 1'	Solid	04/28/23 08:10	05/01/23 09:03
880-27757-4	C-4 , 1'	Solid	04/28/23 08:15	05/01/23 09:03
880-27757-5	C-5 , 1'	Solid	04/28/23 08:20	05/01/23 09:03

Released to Imaging: 12/5/2023 3:14:43 PM
Received by OCD: 8/23/2023 10:56:44 AM

27757 No. 2993

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 202
Midland, TX 79701
432-687-0901

Data Reported to

DATE 4-28-23 PAGE 1 OF 1
PO# _____ LAB WORK ORDER# _____
PROJECT LOCATION OR NAME Salado Draw 19 CTB Water Lines
LAI PROJECT # 22-0105-01 COLLECTOR KG

TRRP report? ☐ Yes ☒ No
TIME ZONE Time zone/State MNT/NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH ☐ | ICE | UNPRESSERVED

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | OIL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D W 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 NaOH	ICE	UNPRESSERVED	BTEX	TRPH	GASOLINE	DIESEL	OIL	VOC	SVOC	PAH	HOLDPAH	8081	8082	TCLP-METALS	TCLP-PEST	TOTAL METALS	LEAD-TOTAL	RCI	TDS	pH	EXPLOSIVES	CHLORIDE	FIELD NOTES
C-1, 1'		4-28-23	0800	S	1				X		X		X	X	X															X	20z
C-2, 1'			0805																												
C-3, 1'			0810																												
C-4, 1'			0815																												
C-5, 1'			0820																												

880-27757 Chain of Custody

TOTAL 5

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
Daniel Gallegos	5/1/23 903	
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
LABORATORY Xenco		

TURN AROUND TIME
NORMAL ☐
1 DAY ☒
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP 1.6/1.3 THERM# IR28-36
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☑ HAND DELIVERED

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-27757-1
SDG Number:

Login Number: 27757
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.	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	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-10894-1
Laboratory Sample Delivery Group: 22-0105-4
Client Project/Site: SD 19 CTB - Manifold

For:
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
2/15/2022 8:37:58 AM

Holly Taylor, Project Manager
(806)794-1296
holly.taylor@eurofinset.com

LINKS

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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.

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Laboratory Job ID: 880-10894-1
SDG: 22-0105-4

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-10894-1
Project/Site: SD 19 CTB - Manifold SDG: 22-0105-4

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Job ID: 880-10894-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-10894-1

Receipt
The samples were received on 2/2/2022 11:10 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 -8.8°C

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: S-1 0-.5' (880-10894-1), S-1 1' (880-10894-2), S-2 0-.5' (880-10894-3), S-2 1' (880-10894-4), S-3 0-.5' (880-10894-5), S-3 1' (880-10894-6), S-4 0-.5' (880-10894-7), S-4 1' (880-10894-8), S-5 0-.5' (880-10894-9), S-5 1' (880-10894-10) and (CCV 880-18404/53). 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 for preparation batch 880-18463 and analytical batch 880-18462 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-18467 and analytical batch 880-18404 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-18560 and analytical batch 880-18646 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (880-10895-A-21-C MS). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: S-1 0-.5' (880-10894-1), S-3 0-.5' (880-10894-5) and (880-10870-A-1-D MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-18572 and analytical batch 880-18733 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 300_ORGFM_28D: The matrix spike (MS) recoveries for preparation batch 880-18573 and analytical batch 880-18737 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.The associated samples are: S-2 0-.5' (880-10894-3), S-2 1' (880-10894-4), S-3 0-.5' (880-10894-5), S-3 1' (880-10894-6), S-4 0-.5' (880-10894-7), S-4 1' (880-10894-8), S-5 0-.5' (880-10894-9), S-5 1' (880-10894-10), S-6 0-.5' (880-10894-11), S-6 1' (880-10894-12) and (880-10894-A-3-D MS).

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

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-1 0-.5'

Lab Sample ID: 880-10894-1
Matrix: Solid
Date Collected: 02/01/22 12:55
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 08:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 08:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 08:40	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/22 10:06	02/04/22 08:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 08:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/22 10:06	02/04/22 08:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*213*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 08:40*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*02/03/22 10:06*	*02/04/22 08:40*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/04/22 16:57	1

Method: 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			02/08/22 16:56	1

Method: 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		02/04/22 11:03	02/06/22 16:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 16:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*63*	*S1-*	*70 - 130*	*02/04/22 11:03*	*02/06/22 16:42*	*1*
o-Terphenyl (Surr)	*71*		*70 - 130*	*02/04/22 11:03*	*02/06/22 16:42*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**53.6**		4.98		mg/Kg			02/09/22 23:30	1

Client Sample ID: S-1 1'

Lab Sample ID: 880-10894-2
Matrix: Solid
Date Collected: 02/01/22 12:56
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/03/22 10:06	02/04/22 09:08	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/03/22 10:06	02/04/22 09:08	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/03/22 10:06	02/04/22 09:08	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		02/03/22 10:06	02/04/22 09:08	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/03/22 10:06	02/04/22 09:08	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/03/22 10:06	02/04/22 09:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*182*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 09:08*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*02/03/22 10:06*	*02/04/22 09:08*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-1 1'

Date Collected: 02/01/22 12:56
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-2
Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/04/22 16:57	1

Method: 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			02/08/22 16:56	1

Method: 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		02/04/22 11:03	02/06/22 17:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 17:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 17:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*70*		*70 - 130*	*02/04/22 11:03*	*02/06/22 17:06*	*1*
o-Terphenyl (Surr)	*76*		*70 - 130*	*02/04/22 11:03*	*02/06/22 17:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**78.1**		4.97		mg/Kg			02/09/22 23:35	1

Client Sample ID: S-2 0-.5'

Date Collected: 02/01/22 12:57
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 09:36	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 09:36	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 09:36	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		02/03/22 10:06	02/04/22 09:36	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 09:36	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/03/22 10:06	02/04/22 09:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*183*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 09:36*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*02/03/22 10:06*	*02/04/22 09:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/04/22 16:57	1

Method: 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			02/08/22 16:56	1

Method: 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		02/04/22 11:03	02/06/22 17:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 17:30	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-2 0-.5'

Date Collected: 02/01/22 12:57
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*79*		*70 - 130*	*02/04/22 11:03*	*02/06/22 17:30*	*1*
o-Terphenyl (Surr)	*89*		*70 - 130*	*02/04/22 11:03*	*02/06/22 17:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4190**	**F1**	25.0		mg/Kg			02/12/22 01:22	5

Client Sample ID: S-2 1'

Date Collected: 02/01/22 12:58
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 10:04	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 10:04	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 10:04	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/22 10:06	02/04/22 10:04	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 10:04	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/22 10:06	02/04/22 10:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*163*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 10:04*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*02/03/22 10:06*	*02/04/22 10:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/04/22 16:57	1

Method: 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			02/08/22 16:56	1

Method: 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		02/04/22 11:03	02/06/22 17:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/04/22 11:03	02/06/22 17:53	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/04/22 11:03	02/06/22 17:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*73*		*70 - 130*	*02/04/22 11:03*	*02/06/22 17:53*	*1*
o-Terphenyl (Surr)	*83*		*70 - 130*	*02/04/22 11:03*	*02/06/22 17:53*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**953**		5.01		mg/Kg			02/12/22 01:50	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-3 0-.5'

Lab Sample ID: 880-10894-5
Matrix: Solid
Date Collected: 02/01/22 12:59
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 10:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 10:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 10:32	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		02/03/22 10:06	02/04/22 10:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 10:32	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/03/22 10:06	02/04/22 10:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*206*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 10:32*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*02/03/22 10:06*	*02/04/22 10:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/04/22 16:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**55.8**		50.0		mg/Kg			02/08/22 16:56	1

Method: 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		02/04/22 11:03	02/06/22 18:16	1
Diesel Range Organics (Over C10-C28)	**55.8**		50.0		mg/Kg		02/04/22 11:03	02/06/22 18:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 18:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*66*	*S1-*	*70 - 130*	*02/04/22 11:03*	*02/06/22 18:16*	*1*
o-Terphenyl (Surr)	*76*		*70 - 130*	*02/04/22 11:03*	*02/06/22 18:16*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7210**		49.8		mg/Kg			02/12/22 02:00	10

Client Sample ID: S-3 1'

Lab Sample ID: 880-10894-6
Matrix: Solid
Date Collected: 02/01/22 13:00
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/03/22 10:06	02/04/22 11:01	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/03/22 10:06	02/04/22 11:01	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/03/22 10:06	02/04/22 11:01	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		02/03/22 10:06	02/04/22 11:01	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/03/22 10:06	02/04/22 11:01	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/03/22 10:06	02/04/22 11:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*191*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 11:01*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*02/03/22 10:06*	*02/04/22 11:01*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-3 1'

Date Collected: 02/01/22 13:00
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-6
Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/04/22 16:57	1

Method: 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			02/08/22 16:56	1

Method: 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		02/04/22 11:03	02/06/22 19:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/04/22 11:03	02/06/22 19:03	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/04/22 11:03	02/06/22 19:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*71*		*70 - 130*	*02/04/22 11:03*	*02/06/22 19:03*	*1*
o-Terphenyl (Surr)	*81*		*70 - 130*	*02/04/22 11:03*	*02/06/22 19:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4270**		24.8		mg/Kg			02/12/22 02:09	5

Client Sample ID: S-4 0-.5'

Date Collected: 02/01/22 13:01
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-7
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 11:29	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 11:29	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 11:29	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		02/03/22 10:06	02/04/22 11:29	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 11:29	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/03/22 10:06	02/04/22 11:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*174*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 11:29*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*02/03/22 10:06*	*02/04/22 11:29*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/04/22 16:57	1

Method: 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			02/08/22 16:56	1

Method: 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		02/04/22 11:03	02/06/22 19:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 19:26	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-4 0-.5'

Date Collected: 02/01/22 13:01
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-7
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*76*		*70 - 130*	*02/04/22 11:03*	*02/06/22 19:26*	*1*
o-Terphenyl (Surr)	*84*		*70 - 130*	*02/04/22 11:03*	*02/06/22 19:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2270**		25.0		mg/Kg			02/12/22 02:19	5

Client Sample ID: S-4 1'

Date Collected: 02/01/22 13:02
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-8
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 11:57	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 11:57	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 11:57	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		02/03/22 10:06	02/04/22 11:57	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/03/22 10:06	02/04/22 11:57	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/03/22 10:06	02/04/22 11:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*190*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 11:57*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*02/03/22 10:06*	*02/04/22 11:57*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/04/22 16:57	1

Method: 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			02/08/22 16:56	1

Method: 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		02/04/22 11:03	02/06/22 19:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 19:49	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*72*		*70 - 130*	*02/04/22 11:03*	*02/06/22 19:49*	*1*
o-Terphenyl (Surr)	*79*		*70 - 130*	*02/04/22 11:03*	*02/06/22 19:49*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**123**		4.96		mg/Kg			02/12/22 02:48	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-5 0-.5'

Lab Sample ID: 880-10894-9
Matrix: Solid
Date Collected: 02/01/22 13:03
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 12:24	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 12:24	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 12:24	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/22 10:06	02/04/22 12:24	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/22 10:06	02/04/22 12:24	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/22 10:06	02/04/22 12:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*190*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 12:24*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*02/03/22 10:06*	*02/04/22 12:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/04/22 16:57	1

Method: 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			02/08/22 16:56	1

Method: 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		02/04/22 11:03	02/06/22 20:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/04/22 11:03	02/06/22 20:12	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/04/22 11:03	02/06/22 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*78*		*70 - 130*	*02/04/22 11:03*	*02/06/22 20:12*	*1*
o-Terphenyl (Surr)	*86*		*70 - 130*	*02/04/22 11:03*	*02/06/22 20:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3240**		25.2		mg/Kg			02/12/22 02:57	5

Client Sample ID: S-5 1'

Lab Sample ID: 880-10894-10
Matrix: Solid
Date Collected: 02/01/22 13:04
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/03/22 10:06	02/04/22 12:52	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/03/22 10:06	02/04/22 12:52	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/03/22 10:06	02/04/22 12:52	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		02/03/22 10:06	02/04/22 12:52	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/03/22 10:06	02/04/22 12:52	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/03/22 10:06	02/04/22 12:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*186*	*S1+*	*70 - 130*	*02/03/22 10:06*	*02/04/22 12:52*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*02/03/22 10:06*	*02/04/22 12:52*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-5 1'

Date Collected: 02/01/22 13:04
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-10

Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/04/22 16:57	1

Method: 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			02/08/22 16:56	1

Method: 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		02/04/22 11:03	02/06/22 20:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 20:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 20:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*74*		*70 - 130*	*02/04/22 11:03*	*02/06/22 20:36*	*1*
o-Terphenyl (Surr)	*84*		*70 - 130*	*02/04/22 11:03*	*02/06/22 20:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2210**		24.9		mg/Kg			02/12/22 03:07	5

Client Sample ID: S-6 0-.5'

Date Collected: 02/01/22 13:05
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-11

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U F1	0.00198		mg/Kg		02/03/22 09:47	02/04/22 09:28	1
Toluene	<0.00198	U F1	0.00198		mg/Kg		02/03/22 09:47	02/04/22 09:28	1
Ethylbenzene	<0.00198	U F1	0.00198		mg/Kg		02/03/22 09:47	02/04/22 09:28	1
m,p-Xylenes	<0.00397	U F1	0.00397		mg/Kg		02/03/22 09:47	02/04/22 09:28	1
o-Xylene	<0.00198	U F1	0.00198		mg/Kg		02/03/22 09:47	02/04/22 09:28	1
Xylenes, Total	<0.00397	U F1	0.00397		mg/Kg		02/03/22 09:47	02/04/22 09:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*02/03/22 09:47*	*02/04/22 09:28*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*02/03/22 09:47*	*02/04/22 09:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/04/22 16:57	1

Method: 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			02/08/22 16:56	1

Method: 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		02/04/22 11:03	02/06/22 21:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/04/22 11:03	02/06/22 21:01	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-6 0-.5'

Lab Sample ID: 880-10894-11
Matrix: Solid
Date Collected: 02/01/22 13:05
Date Received: 02/02/22 11:10

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/04/22 11:03	02/06/22 21:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*77*		*70 - 130*	*02/04/22 11:03*	*02/06/22 21:01*	*1*
o-Terphenyl (Surr)	*86*		*70 - 130*	*02/04/22 11:03*	*02/06/22 21:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**126**		5.00		mg/Kg			02/12/22 03:16	1

Client Sample ID: S-6 1'

Lab Sample ID: 880-10894-12
Matrix: Solid
Date Collected: 02/01/22 13:06
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 09:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 09:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 09:48	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/22 09:47	02/04/22 09:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 09:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/22 09:47	02/04/22 09:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*02/03/22 09:47*	*02/04/22 09:48*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/03/22 09:47*	*02/04/22 09:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/04/22 16:57	1

Method: 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			02/08/22 16:56	1

Method: 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		02/04/22 11:03	02/06/22 21:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 21:24	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*77*		*70 - 130*	*02/04/22 11:03*	*02/06/22 21:24*	*1*
o-Terphenyl (Surr)	*85*		*70 - 130*	*02/04/22 11:03*	*02/06/22 21:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**127**		4.99		mg/Kg			02/12/22 03:26	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-7 0-.5'

Lab Sample ID: 880-10894-13
Matrix: Solid
Date Collected: 02/01/22 13:07
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:47	02/04/22 10:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:47	02/04/22 10:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:47	02/04/22 10:08	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		02/03/22 09:47	02/04/22 10:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:47	02/04/22 10:08	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/03/22 09:47	02/04/22 10:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*02/03/22 09:47*	*02/04/22 10:08*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*02/03/22 09:47*	*02/04/22 10:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/04/22 16:57	1

Method: 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			02/08/22 16:56	1

Method: 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		02/04/22 11:03	02/06/22 21:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 21:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 21:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*74*		*70 - 130*	*02/04/22 11:03*	*02/06/22 21:48*	*1*
o-Terphenyl (Surr)	*85*		*70 - 130*	*02/04/22 11:03*	*02/06/22 21:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**116**		4.98		mg/Kg			02/12/22 03:35	1

Client Sample ID: S-7 1'

Lab Sample ID: 880-10894-14
Matrix: Solid
Date Collected: 02/01/22 13:08
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 10:29	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 10:29	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 10:29	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/22 09:47	02/04/22 10:29	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 10:29	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/22 09:47	02/04/22 10:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*02/03/22 09:47*	*02/04/22 10:29*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/03/22 09:47*	*02/04/22 10:29*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-7 1'

Lab Sample ID: 880-10894-14
Matrix: Solid
Date Collected: 02/01/22 13:08
Date Received: 02/02/22 11:10

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/04/22 16:57	1

Method: 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			02/08/22 16:56	1

Method: 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		02/04/22 11:03	02/06/22 22:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 22:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/04/22 11:03	02/06/22 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*75*		*70 - 130*	*02/04/22 11:03*	*02/06/22 22:11*	*1*
o-Terphenyl (Surr)	*83*		*70 - 130*	*02/04/22 11:03*	*02/06/22 22:11*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**83.3**		5.01		mg/Kg			02/12/22 04:04	1

Client Sample ID: S-8 0-.5'

Lab Sample ID: 880-10894-15
Matrix: Solid
Date Collected: 02/01/22 13:09
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 10:49	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 10:49	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 10:49	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/22 09:47	02/04/22 10:49	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 10:49	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/22 09:47	02/04/22 10:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*02/03/22 09:47*	*02/04/22 10:49*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*02/03/22 09:47*	*02/04/22 10:49*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/04/22 16:57	1

Method: 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			02/08/22 16:56	1

Method: 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		02/04/22 13:33	02/06/22 01:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/04/22 13:33	02/06/22 01:58	1

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-8 0-.5'

Lab Sample ID: 880-10894-15
Matrix: Solid
Date Collected: 02/01/22 13:09
Date Received: 02/02/22 11:10

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/04/22 13:33	02/06/22 01:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*95*		*70 - 130*	*02/04/22 13:33*	*02/06/22 01:58*	*1*
o-Terphenyl (Surr)	*97*		*70 - 130*	*02/04/22 13:33*	*02/06/22 01:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**942**		24.9		mg/Kg			02/12/22 04:14	5

Client Sample ID: S-8 1'

Lab Sample ID: 880-10894-16
Matrix: Solid
Date Collected: 02/01/22 13:10
Date Received: 02/02/22 11:10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 11:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 11:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 11:10	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/22 09:47	02/04/22 11:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/22 09:47	02/04/22 11:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/03/22 09:47	02/04/22 11:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*02/03/22 09:47*	*02/04/22 11:10*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*02/03/22 09:47*	*02/04/22 11:10*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/04/22 16:57	1

Method: 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			02/07/22 11:51	1

Method: 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		02/04/22 11:12	02/07/22 01:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/04/22 11:12	02/07/22 01:21	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/04/22 11:12	02/07/22 01:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*88*		*70 - 130*	*02/04/22 11:12*	*02/07/22 01:21*	*1*
o-Terphenyl (Surr)	*81*		*70 - 130*	*02/04/22 11:12*	*02/07/22 01:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**855**		24.9		mg/Kg			02/12/22 04:42	5

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-10893-A-4-B MS	Matrix Spike	168 S1+	98
880-10893-A-4-C MSD	Matrix Spike Duplicate	157 S1+	105
880-10894-1	S-1 0-.5'	213 S1+	79
880-10894-2	S-1 1'	182 S1+	83
880-10894-3	S-2 0-.5'	183 S1+	85
880-10894-4	S-2 1'	163 S1+	90
880-10894-5	S-3 0-.5'	206 S1+	87
880-10894-6	S-3 1'	191 S1+	84
880-10894-7	S-4 0-.5'	174 S1+	86
880-10894-8	S-4 1'	190 S1+	90
880-10894-9	S-5 0-.5'	190 S1+	87
880-10894-10	S-5 1'	186 S1+	76
880-10894-11	S-6 0-.5'	105	109
880-10894-11 MS	S-6 0-.5'	151 S1+	111
880-10894-11 MSD	S-6 0-.5'	111	95
880-10894-12	S-6 1'	112	97
880-10894-13	S-7 0-.5'	130	114
880-10894-14	S-7 1'	105	107
880-10894-15	S-8 0-.5'	96	78
880-10894-16	S-8 1'	102	105
LCS 880-18463/1-A	Lab Control Sample	117	124
LCS 880-18467/1-A	Lab Control Sample	180 S1+	95
LCSD 880-18463/2-A	Lab Control Sample Dup	97	87
LCSD 880-18467/2-A	Lab Control Sample Dup	154 S1+	87
MB 880-18361/5-A	Method Blank	109	105
MB 880-18404/8	Method Blank	120	72
MB 880-18463/5-A	Method Blank	119	102
MB 880-18467/5-A	Method Blank	128	76

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**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-10870-A-1-C MS	Matrix Spike	73	76
880-10870-A-1-D MSD	Matrix Spike Duplicate	67 S1-	68 S1-
880-10894-1	S-1 0-.5'	63 S1-	71
880-10894-2	S-1 1'	70	76
880-10894-3	S-2 0-.5'	79	89
880-10894-4	S-2 1'	73	83
880-10894-5	S-3 0-.5'	66 S1-	76
880-10894-6	S-3 1'	71	81
880-10894-7	S-4 0-.5'	76	84
880-10894-8	S-4 1'	72	79
880-10894-9	S-5 0-.5'	78	86

Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-10894-1
Project/Site: SD 19 CTB - Manifold SDG: 22-0105-4

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)										
880-10894-10	S-5 1'	74	84										
880-10894-11	S-6 0-.5'	77	86										
880-10894-12	S-6 1'	77	85										
880-10894-13	S-7 0-.5'	74	85										
880-10894-14	S-7 1'	75	83										
880-10894-15	S-8 0-.5'	95	97										
880-10894-16	S-8 1'	88	81										
880-10895-A-21-C MS	Matrix Spike	58 S1-	52 S1-										
880-10895-A-21-D MSD	Matrix Spike Duplicate	76	73										
880-10912-A-21-C MS	Matrix Spike	82	83										
880-10912-A-21-D MSD	Matrix Spike Duplicate	75	75										
LCS 880-18556/2-A	Lab Control Sample	94	102										
LCSD 880-18556/3-A	Lab Control Sample Dup	89	96										
MB 880-18556/1-A	Method Blank	86	97										

Surrogate Legend

1CO = 1-Chlorooctane (Surr)

OTPH = o-Terphenyl (Surr)

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)										
LCS 880-18560/2-A	Lab Control Sample	84	89										
LCS 880-18594/2-A	Lab Control Sample	93	88										
LCSD 880-18560/3-A	Lab Control Sample Dup	98	94										
LCSD 880-18594/3-A	Lab Control Sample Dup	100	103										
MB 880-18560/1-A	Method Blank	106	108										
MB 880-18594/1-A	Method Blank	102	107										

Surrogate Legend

1CO = 1-Chlorooctane (Surr)

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-18361/5-A
Matrix: Solid
Analysis Batch: 18462

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18361

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:00	02/03/22 22:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:00	02/03/22 22:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:00	02/03/22 22:14	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/03/22 09:00	02/03/22 22:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:00	02/03/22 22:14	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/03/22 09:00	02/03/22 22:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*02/03/22 09:00*	*02/03/22 22:14*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*02/03/22 09:00*	*02/03/22 22:14*	*1*

Lab Sample ID: MB 880-18404/8
Matrix: Solid
Analysis Batch: 18404

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			02/03/22 17:23	1
Toluene	<0.00200	U	0.00200		mg/Kg			02/03/22 17:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			02/03/22 17:23	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg			02/03/22 17:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			02/03/22 17:23	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			02/03/22 17:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*		*02/03/22 17:23*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*		*02/03/22 17:23*	*1*

Lab Sample ID: MB 880-18463/5-A
Matrix: Solid
Analysis Batch: 18462

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18463

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:47	02/04/22 09:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:47	02/04/22 09:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:47	02/04/22 09:06	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/03/22 09:47	02/04/22 09:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/22 09:47	02/04/22 09:06	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/03/22 09:47	02/04/22 09:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*02/03/22 09:47*	*02/04/22 09:06*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*02/03/22 09:47*	*02/04/22 09:06*	*1*

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

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

Lab Sample ID: LCS 880-18463/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18462 — **Prep Batch: 18463**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08004		mg/Kg		80	70 - 130		
Toluene			0.100	0.07854		mg/Kg		79	70 - 130		
Ethylbenzene			0.100	0.07803		mg/Kg		78	70 - 130		
m,p-Xylenes			0.200	0.1590		mg/Kg		79	70 - 130		
o-Xylene			0.100	0.07935		mg/Kg		79	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*

Lab Sample ID: LCSD 880-18463/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18462 — **Prep Batch: 18463**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07142		mg/Kg		71	70 - 130	11	35
Toluene			0.100	0.07131		mg/Kg		71	70 - 130	10	35
Ethylbenzene			0.100	0.07194		mg/Kg		72	70 - 130	8	35
m,p-Xylenes			0.200	0.1438		mg/Kg		72	70 - 130	10	35
o-Xylene			0.100	0.07339		mg/Kg		73	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: 880-10894-11 MS — **Client Sample ID: S-6 0-.5'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18462 — **Prep Batch: 18463**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00198	U F1	0.0996	0.02380	F1	mg/Kg		24	70 - 130		
Toluene	<0.00198	U F1	0.0996	0.01997	F1	mg/Kg		20	70 - 130		
Ethylbenzene	<0.00198	U F1	0.0996	0.02563	F1	mg/Kg		26	70 - 130		
m,p-Xylenes	<0.00397	U F1	0.199	0.04632	F1	mg/Kg		23	70 - 130		
o-Xylene	<0.00198	U F1	0.0996	0.04216	F1	mg/Kg		42	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*151*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: 880-10894-11 MSD — **Client Sample ID: S-6 0-.5'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18462 — **Prep Batch: 18463**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U F1	0.100	0.03207	F1	mg/Kg		32	70 - 130	30	35
Toluene	<0.00198	U F1	0.100	0.02755	F1	mg/Kg		28	70 - 130	32	35
Ethylbenzene	<0.00198	U F1	0.100	0.03155	F1	mg/Kg		32	70 - 130	21	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

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

Lab Sample ID: 880-10894-11 MSD
Matrix: Solid
Analysis Batch: 18462

Client Sample ID: S-6 0-.5'
Prep Type: Total/NA
Prep Batch: 18463

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m,p-Xylenes	<0.00397	U F1	0.200	0.06298	F1	mg/Kg		31	70 - 130	30	35
o-Xylene	<0.00198	U F1	0.100	0.04333	F1	mg/Kg		43	70 - 130	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: MB 880-18467/5-A
Matrix: Solid
Analysis Batch: 18404

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18467

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 02:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 02:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 02:17	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/03/22 10:06	02/04/22 02:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/22 10:06	02/04/22 02:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/03/22 10:06	02/04/22 02:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*	*02/03/22 10:06*	*02/04/22 02:17*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*02/03/22 10:06*	*02/04/22 02:17*	*1*

Lab Sample ID: LCS 880-18467/1-A
Matrix: Solid
Analysis Batch: 18404

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18467

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08145		mg/Kg		81	70 - 130		
Toluene			0.100	0.08647		mg/Kg		86	70 - 130		
Ethylbenzene			0.100	0.09778		mg/Kg		98	70 - 130		
m,p-Xylenes			0.200	0.1881		mg/Kg		94	70 - 130		
o-Xylene			0.100	0.1011		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*180*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 880-18467/2-A
Matrix: Solid
Analysis Batch: 18404

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18467

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07464		mg/Kg		75	70 - 130	9	35
Toluene			0.100	0.07488		mg/Kg		75	70 - 130	14	35
Ethylbenzene			0.100	0.08497		mg/Kg		85	70 - 130	14	35
m,p-Xylenes			0.200	0.1632		mg/Kg		82	70 - 130	14	35
o-Xylene			0.100	0.08892		mg/Kg		89	70 - 130	13	35

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*154*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: 880-10893-A-4-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18404 — **Prep Batch: 18467**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00198	U F1	0.0996	0.05971	F1	mg/Kg		60	70 - 130
Toluene	<0.00198	U F1	0.0996	0.06053	F1	mg/Kg		61	70 - 130
Ethylbenzene	<0.00198	U F1	0.0996	0.06883	F1	mg/Kg		69	70 - 130
m,p-Xylenes	<0.00397	U F1	0.199	0.1299	F1	mg/Kg		65	70 - 130
o-Xylene	<0.00198	U	0.0996	0.07058		mg/Kg		71	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*168*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 880-10893-A-4-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18404 — **Prep Batch: 18467**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U F1	0.0996	0.06598	F1	mg/Kg		66	70 - 130	10	35
Toluene	<0.00198	U F1	0.0996	0.06460	F1	mg/Kg		65	70 - 130	7	35
Ethylbenzene	<0.00198	U F1	0.0996	0.07157		mg/Kg		72	70 - 130	4	35
m,p-Xylenes	<0.00397	U F1	0.199	0.1353	F1	mg/Kg		68	70 - 130	4	35
o-Xylene	<0.00198	U	0.0996	0.07369		mg/Kg		74	70 - 130	4	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*157*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

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

Lab Sample ID: MB 880-18556/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 18649 — **Prep Batch: 18556**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/04/22 11:03	02/06/22 12:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/04/22 11:03	02/06/22 12:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/04/22 11:03	02/06/22 12:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	*86*		*70 - 130*	*02/04/22 11:03*	*02/06/22 12:53*	*1*
o-Terphenyl (Surr)	*97*		*70 - 130*	*02/04/22 11:03*	*02/06/22 12:53*	*1*

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

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

Lab Sample ID: LCS 880-18556/2-A
Matrix: Solid
Analysis Batch: 18649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18556

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	825.5		mg/Kg		83	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1095		mg/Kg		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*94*		*70 - 130*
o-Terphenyl (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-18556/3-A
Matrix: Solid
Analysis Batch: 18649

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18556

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	799.4		mg/Kg		80	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1051		mg/Kg		105	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*89*		*70 - 130*
o-Terphenyl (Surr)	*96*		*70 - 130*

Lab Sample ID: 880-10870-A-1-C MS
Matrix: Solid
Analysis Batch: 18649

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18556

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	935.8		mg/Kg		89	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	965.8		mg/Kg		93	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*73*		*70 - 130*
o-Terphenyl (Surr)	*76*		*70 - 130*

Lab Sample ID: 880-10870-A-1-D MSD
Matrix: Solid
Analysis Batch: 18649

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 18556

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	<50.0	U	998	784.1		mg/Kg		74	70 - 130	18	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	873.3		mg/Kg		84	70 - 130	10	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*67*	*S1-*	*70 - 130*

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

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

Lab Sample ID: 880-10870-A-1-D MSD
Matrix: Solid
Analysis Batch: 18649

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 18556

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl (Surr)	68	S1-	70 - 130

Lab Sample ID: MB 880-18560/1-A
Matrix: Solid
Analysis Batch: 18646

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18560

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/04/22 11:12	02/06/22 21:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/04/22 11:12	02/06/22 21:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/04/22 11:12	02/06/22 21:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	106		70 - 130	02/04/22 11:12	02/06/22 21:12	1
o-Terphenyl (Surr)	108		70 - 130	02/04/22 11:12	02/06/22 21:12	1

Lab Sample ID: LCS 880-18560/2-A
Matrix: Solid
Analysis Batch: 18646

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18560

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	966.6		mg/Kg		97	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	936.4		mg/Kg		94	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	84		70 - 130
o-Terphenyl (Surr)	89		70 - 130

Lab Sample ID: LCSD 880-18560/3-A
Matrix: Solid
Analysis Batch: 18646

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18560

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	994.4		mg/Kg		99	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	901.7		mg/Kg		90	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	98		70 - 130
o-Terphenyl (Surr)	94		70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

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

Lab Sample ID: 880-10895-A-21-C MS
Matrix: Solid
Analysis Batch: 18646

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18560

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 F2	1000	649.9	F1	mg/Kg		62	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U F1 F2	1000	661.8	F1	mg/Kg		66	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*58*	*S1-*	*70 - 130*
o-Terphenyl (Surr)	*52*	*S1-*	*70 - 130*

Lab Sample ID: 880-10895-A-21-D MSD
Matrix: Solid
Analysis Batch: 18646

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 18560

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	<50.0	U F1 F2	998	1121	F2	mg/Kg		109	70 - 130	53	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1 F2	998	953.1	F2	mg/Kg		96	70 - 130	36	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*76*		*70 - 130*
o-Terphenyl (Surr)	*73*		*70 - 130*

Lab Sample ID: MB 880-18594/1-A
Matrix: Solid
Analysis Batch: 18620

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18594

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/04/22 13:33	02/05/22 21:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/04/22 13:33	02/05/22 21:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/04/22 13:33	02/05/22 21:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*102*		*70 - 130*	*02/04/22 13:33*	*02/05/22 21:26*	*1*
o-Terphenyl (Surr)	*107*		*70 - 130*	*02/04/22 13:33*	*02/05/22 21:26*	*1*

Lab Sample ID: LCS 880-18594/2-A
Matrix: Solid
Analysis Batch: 18620

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18594

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1110		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1191		mg/Kg		119	70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

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

Lab Sample ID: LCS 880-18594/2-A
Matrix: Solid
Analysis Batch: 18620

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18594

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	93		70 - 130
o-Terphenyl (Surr)	88		70 - 130

Lab Sample ID: LCSD 880-18594/3-A
Matrix: Solid
Analysis Batch: 18620

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18594

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1103		mg/Kg		110	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	1159		mg/Kg		116	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	100		70 - 130
o-Terphenyl (Surr)	103		70 - 130

Lab Sample ID: 880-10912-A-21-C MS
Matrix: Solid
Analysis Batch: 18620

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18594

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1126		mg/Kg		110	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1084		mg/Kg		108	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	82		70 - 130
o-Terphenyl (Surr)	83		70 - 130

Lab Sample ID: 880-10912-A-21-D MSD
Matrix: Solid
Analysis Batch: 18620

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 18594

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	<50.0	U	998	1063		mg/Kg		104	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	954.0		mg/Kg		96	70 - 130	13	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane (Surr)	75		70 - 130
o-Terphenyl (Surr)	75		70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-18572/1-A
Matrix: Solid
Analysis Batch: 18733

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			02/09/22 21:53	1

Lab Sample ID: LCS 880-18572/2-A
Matrix: Solid
Analysis Batch: 18733

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	253.8		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-18572/3-A
Matrix: Solid
Analysis Batch: 18733

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	251.1		mg/Kg		100	90 - 110	1	20

Lab Sample ID: 880-10893-A-11-D MS
Matrix: Solid
Analysis Batch: 18733

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	278	F1	250	501.8	F1	mg/Kg		89	90 - 110		

Lab Sample ID: 880-10893-A-11-E MSD
Matrix: Solid
Analysis Batch: 18733

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	278	F1	250	508.2		mg/Kg		92	90 - 110	1	20

Lab Sample ID: MB 880-18573/1-A
Matrix: Solid
Analysis Batch: 18737

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			02/12/22 00:52	1

Lab Sample ID: LCS 880-18573/2-A
Matrix: Solid
Analysis Batch: 18737

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	267.7		mg/Kg		107	90 - 110		

Lab Sample ID: LCSD 880-18573/3-A
Matrix: Solid
Analysis Batch: 18737

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	265.7		mg/Kg		106	90 - 110	1	20

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 880-10894-3 MS
Matrix: Solid
Analysis Batch: 18737

Client Sample ID: S-2 0-.5'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	4190	F1	1250	5577	F1	mg/Kg		111	90 - 110		

Lab Sample ID: 880-10894-3 MSD
Matrix: Solid
Analysis Batch: 18737

Client Sample ID: S-2 0-.5'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4190	F1	1250	5561		mg/Kg		110	90 - 110	0	20

Lab Sample ID: 880-10894-13 MS
Matrix: Solid
Analysis Batch: 18737

Client Sample ID: S-7 0-.5'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	116		249	386.9		mg/Kg		109	90 - 110		

Lab Sample ID: 880-10894-13 MSD
Matrix: Solid
Analysis Batch: 18737

Client Sample ID: S-7 0-.5'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	116		249	382.5		mg/Kg		107	90 - 110	1	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

GC VOA

Prep Batch: 18361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-18361/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 18404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-1	S-1 0-.5'	Total/NA	Solid	8021B	18467
880-10894-2	S-1 1'	Total/NA	Solid	8021B	18467
880-10894-3	S-2 0-.5'	Total/NA	Solid	8021B	18467
880-10894-4	S-2 1'	Total/NA	Solid	8021B	18467
880-10894-5	S-3 0-.5'	Total/NA	Solid	8021B	18467
880-10894-6	S-3 1'	Total/NA	Solid	8021B	18467
880-10894-7	S-4 0-.5'	Total/NA	Solid	8021B	18467
880-10894-8	S-4 1'	Total/NA	Solid	8021B	18467
880-10894-9	S-5 0-.5'	Total/NA	Solid	8021B	18467
880-10894-10	S-5 1'	Total/NA	Solid	8021B	18467
MB 880-18404/8	Method Blank	Total/NA	Solid	8021B	
MB 880-18467/5-A	Method Blank	Total/NA	Solid	8021B	18467
LCS 880-18467/1-A	Lab Control Sample	Total/NA	Solid	8021B	18467
LCSD 880-18467/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	18467
880-10893-A-4-B MS	Matrix Spike	Total/NA	Solid	8021B	18467
880-10893-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	18467

Analysis Batch: 18462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-11	S-6 0-.5'	Total/NA	Solid	8021B	18463
880-10894-12	S-6 1'	Total/NA	Solid	8021B	18463
880-10894-13	S-7 0-.5'	Total/NA	Solid	8021B	18463
880-10894-14	S-7 1'	Total/NA	Solid	8021B	18463
880-10894-15	S-8 0-.5'	Total/NA	Solid	8021B	18463
880-10894-16	S-8 1'	Total/NA	Solid	8021B	18463
MB 880-18361/5-A	Method Blank	Total/NA	Solid	8021B	18361
MB 880-18463/5-A	Method Blank	Total/NA	Solid	8021B	18463
LCS 880-18463/1-A	Lab Control Sample	Total/NA	Solid	8021B	18463
LCSD 880-18463/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	18463
880-10894-11 MS	S-6 0-.5'	Total/NA	Solid	8021B	18463
880-10894-11 MSD	S-6 0-.5'	Total/NA	Solid	8021B	18463

Prep Batch: 18463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-11	S-6 0-.5'	Total/NA	Solid	5035	
880-10894-12	S-6 1'	Total/NA	Solid	5035	
880-10894-13	S-7 0-.5'	Total/NA	Solid	5035	
880-10894-14	S-7 1'	Total/NA	Solid	5035	
880-10894-15	S-8 0-.5'	Total/NA	Solid	5035	
880-10894-16	S-8 1'	Total/NA	Solid	5035	
MB 880-18463/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-18463/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-18463/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-10894-11 MS	S-6 0-.5'	Total/NA	Solid	5035	
880-10894-11 MSD	S-6 0-.5'	Total/NA	Solid	5035	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

GC VOA

Prep Batch: 18467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-1	S-1 0-.5'	Total/NA	Solid	5035	
880-10894-2	S-1 1'	Total/NA	Solid	5035	
880-10894-3	S-2 0-.5'	Total/NA	Solid	5035	
880-10894-4	S-2 1'	Total/NA	Solid	5035	
880-10894-5	S-3 0-.5'	Total/NA	Solid	5035	
880-10894-6	S-3 1'	Total/NA	Solid	5035	
880-10894-7	S-4 0-.5'	Total/NA	Solid	5035	
880-10894-8	S-4 1'	Total/NA	Solid	5035	
880-10894-9	S-5 0-.5'	Total/NA	Solid	5035	
880-10894-10	S-5 1'	Total/NA	Solid	5035	
MB 880-18467/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-18467/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-18467/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-10893-A-4-B MS	Matrix Spike	Total/NA	Solid	5035	
880-10893-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 18617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-1	S-1 0-.5'	Total/NA	Solid	Total BTEX	
880-10894-2	S-1 1'	Total/NA	Solid	Total BTEX	
880-10894-3	S-2 0-.5'	Total/NA	Solid	Total BTEX	
880-10894-4	S-2 1'	Total/NA	Solid	Total BTEX	
880-10894-5	S-3 0-.5'	Total/NA	Solid	Total BTEX	
880-10894-6	S-3 1'	Total/NA	Solid	Total BTEX	
880-10894-7	S-4 0-.5'	Total/NA	Solid	Total BTEX	
880-10894-8	S-4 1'	Total/NA	Solid	Total BTEX	
880-10894-9	S-5 0-.5'	Total/NA	Solid	Total BTEX	
880-10894-10	S-5 1'	Total/NA	Solid	Total BTEX	
880-10894-11	S-6 0-.5'	Total/NA	Solid	Total BTEX	
880-10894-12	S-6 1'	Total/NA	Solid	Total BTEX	
880-10894-13	S-7 0-.5'	Total/NA	Solid	Total BTEX	
880-10894-14	S-7 1'	Total/NA	Solid	Total BTEX	
880-10894-15	S-8 0-.5'	Total/NA	Solid	Total BTEX	
880-10894-16	S-8 1'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 18556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-1	S-1 0-.5'	Total/NA	Solid	8015NM Prep	
880-10894-2	S-1 1'	Total/NA	Solid	8015NM Prep	
880-10894-3	S-2 0-.5'	Total/NA	Solid	8015NM Prep	
880-10894-4	S-2 1'	Total/NA	Solid	8015NM Prep	
880-10894-5	S-3 0-.5'	Total/NA	Solid	8015NM Prep	
880-10894-6	S-3 1'	Total/NA	Solid	8015NM Prep	
880-10894-7	S-4 0-.5'	Total/NA	Solid	8015NM Prep	
880-10894-8	S-4 1'	Total/NA	Solid	8015NM Prep	
880-10894-9	S-5 0-.5'	Total/NA	Solid	8015NM Prep	
880-10894-10	S-5 1'	Total/NA	Solid	8015NM Prep	
880-10894-11	S-6 0-.5'	Total/NA	Solid	8015NM Prep	
880-10894-12	S-6 1'	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-10894-1
Project/Site: SD 19 CTB - Manifold SDG: 22-0105-4

GC Semi VOA (Continued)

Prep Batch: 18556 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-13	S-7 0-.5'	Total/NA	Solid	8015NM Prep	
880-10894-14	S-7 1'	Total/NA	Solid	8015NM Prep	
MB 880-18556/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18556/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-18556/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-10870-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-10870-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 18560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-16	S-8 1'	Total/NA	Solid	8015NM Prep	
MB 880-18560/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18560/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-18560/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-10895-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-10895-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 18594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-15	S-8 0-.5'	Total/NA	Solid	8015NM Prep	
MB 880-18594/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18594/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-18594/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-10912-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-10912-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 18620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-15	S-8 0-.5'	Total/NA	Solid	8015B NM	18594
MB 880-18594/1-A	Method Blank	Total/NA	Solid	8015B NM	18594
LCS 880-18594/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18594
LCSD 880-18594/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18594
880-10912-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	18594
880-10912-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	18594

Analysis Batch: 18646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-16	S-8 1'	Total/NA	Solid	8015B NM	18560
MB 880-18560/1-A	Method Blank	Total/NA	Solid	8015B NM	18560
LCS 880-18560/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18560
LCSD 880-18560/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18560
880-10895-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	18560
880-10895-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	18560

Analysis Batch: 18649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-1	S-1 0-.5'	Total/NA	Solid	8015B NM	18556
880-10894-2	S-1 1'	Total/NA	Solid	8015B NM	18556
880-10894-3	S-2 0-.5'	Total/NA	Solid	8015B NM	18556
880-10894-4	S-2 1'	Total/NA	Solid	8015B NM	18556
880-10894-5	S-3 0-.5'	Total/NA	Solid	8015B NM	18556

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

GC Semi VOA (Continued)

Analysis Batch: 18649 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-6	S-3 1'	Total/NA	Solid	8015B NM	18556
880-10894-7	S-4 0-.5'	Total/NA	Solid	8015B NM	18556
880-10894-8	S-4 1'	Total/NA	Solid	8015B NM	18556
880-10894-9	S-5 0-.5'	Total/NA	Solid	8015B NM	18556
880-10894-10	S-5 1'	Total/NA	Solid	8015B NM	18556
880-10894-11	S-6 0-.5'	Total/NA	Solid	8015B NM	18556
880-10894-12	S-6 1'	Total/NA	Solid	8015B NM	18556
880-10894-13	S-7 0-.5'	Total/NA	Solid	8015B NM	18556
880-10894-14	S-7 1'	Total/NA	Solid	8015B NM	18556
MB 880-18556/1-A	Method Blank	Total/NA	Solid	8015B NM	18556
LCS 880-18556/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18556
LCSD 880-18556/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18556
880-10870-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	18556
880-10870-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	18556

Analysis Batch: 18702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-16	S-8 1'	Total/NA	Solid	8015 NM	

Analysis Batch: 18870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-1	S-1 0-.5'	Total/NA	Solid	8015 NM	
880-10894-2	S-1 1'	Total/NA	Solid	8015 NM	
880-10894-3	S-2 0-.5'	Total/NA	Solid	8015 NM	
880-10894-4	S-2 1'	Total/NA	Solid	8015 NM	
880-10894-5	S-3 0-.5'	Total/NA	Solid	8015 NM	
880-10894-6	S-3 1'	Total/NA	Solid	8015 NM	
880-10894-7	S-4 0-.5'	Total/NA	Solid	8015 NM	
880-10894-8	S-4 1'	Total/NA	Solid	8015 NM	
880-10894-9	S-5 0-.5'	Total/NA	Solid	8015 NM	
880-10894-10	S-5 1'	Total/NA	Solid	8015 NM	
880-10894-11	S-6 0-.5'	Total/NA	Solid	8015 NM	
880-10894-12	S-6 1'	Total/NA	Solid	8015 NM	
880-10894-13	S-7 0-.5'	Total/NA	Solid	8015 NM	
880-10894-14	S-7 1'	Total/NA	Solid	8015 NM	
880-10894-15	S-8 0-.5'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 18572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-1	S-1 0-.5'	Soluble	Solid	DI Leach	
880-10894-2	S-1 1'	Soluble	Solid	DI Leach	
MB 880-18572/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-18572/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-18572/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-10893-A-11-D MS	Matrix Spike	Soluble	Solid	DI Leach	
880-10893-A-11-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

HPLC/IC

Leach Batch: 18573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-3	S-2 0-.5'	Soluble	Solid	DI Leach	
880-10894-4	S-2 1'	Soluble	Solid	DI Leach	
880-10894-5	S-3 0-.5'	Soluble	Solid	DI Leach	
880-10894-6	S-3 1'	Soluble	Solid	DI Leach	
880-10894-7	S-4 0-.5'	Soluble	Solid	DI Leach	
880-10894-8	S-4 1'	Soluble	Solid	DI Leach	
880-10894-9	S-5 0-.5'	Soluble	Solid	DI Leach	
880-10894-10	S-5 1'	Soluble	Solid	DI Leach	
880-10894-11	S-6 0-.5'	Soluble	Solid	DI Leach	
880-10894-12	S-6 1'	Soluble	Solid	DI Leach	
880-10894-13	S-7 0-.5'	Soluble	Solid	DI Leach	
880-10894-14	S-7 1'	Soluble	Solid	DI Leach	
880-10894-15	S-8 0-.5'	Soluble	Solid	DI Leach	
880-10894-16	S-8 1'	Soluble	Solid	DI Leach	
MB 880-18573/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-18573/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-18573/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-10894-3 MS	S-2 0-.5'	Soluble	Solid	DI Leach	
880-10894-3 MSD	S-2 0-.5'	Soluble	Solid	DI Leach	
880-10894-13 MS	S-7 0-.5'	Soluble	Solid	DI Leach	
880-10894-13 MSD	S-7 0-.5'	Soluble	Solid	DI Leach	

Analysis Batch: 18733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-1	S-1 0-.5'	Soluble	Solid	300.0	18572
880-10894-2	S-1 1'	Soluble	Solid	300.0	18572
MB 880-18572/1-A	Method Blank	Soluble	Solid	300.0	18572
LCS 880-18572/2-A	Lab Control Sample	Soluble	Solid	300.0	18572
LCSD 880-18572/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	18572
880-10893-A-11-D MS	Matrix Spike	Soluble	Solid	300.0	18572
880-10893-A-11-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	18572

Analysis Batch: 18737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-3	S-2 0-.5'	Soluble	Solid	300.0	18573
880-10894-4	S-2 1'	Soluble	Solid	300.0	18573
880-10894-5	S-3 0-.5'	Soluble	Solid	300.0	18573
880-10894-6	S-3 1'	Soluble	Solid	300.0	18573
880-10894-7	S-4 0-.5'	Soluble	Solid	300.0	18573
880-10894-8	S-4 1'	Soluble	Solid	300.0	18573
880-10894-9	S-5 0-.5'	Soluble	Solid	300.0	18573
880-10894-10	S-5 1'	Soluble	Solid	300.0	18573
880-10894-11	S-6 0-.5'	Soluble	Solid	300.0	18573
880-10894-12	S-6 1'	Soluble	Solid	300.0	18573
880-10894-13	S-7 0-.5'	Soluble	Solid	300.0	18573
880-10894-14	S-7 1'	Soluble	Solid	300.0	18573
880-10894-15	S-8 0-.5'	Soluble	Solid	300.0	18573
880-10894-16	S-8 1'	Soluble	Solid	300.0	18573
MB 880-18573/1-A	Method Blank	Soluble	Solid	300.0	18573
LCS 880-18573/2-A	Lab Control Sample	Soluble	Solid	300.0	18573
LCSD 880-18573/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	18573

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

HPLC/IC (Continued)

Analysis Batch: 18737 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-10894-3 MS	S-2 0-.5'	Soluble	Solid	300.0	18573
880-10894-3 MSD	S-2 0-.5'	Soluble	Solid	300.0	18573
880-10894-13 MS	S-7 0-.5'	Soluble	Solid	300.0	18573
880-10894-13 MSD	S-7 0-.5'	Soluble	Solid	300.0	18573

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-1 0-.5'

Lab Sample ID: 880-10894-1
Matrix: Solid
Date Collected: 02/01/22 12:55
Date Received: 02/02/22 11:10

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	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 08:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18556	02/04/22 11:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18649	02/06/22 16:42	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18572	02/04/22 12:49	CH	XEN MID
Soluble	Analysis	300.0		1			18733	02/09/22 23:30	CH	XEN MID

Client Sample ID: S-1 1'

Lab Sample ID: 880-10894-2
Matrix: Solid
Date Collected: 02/01/22 12:56
Date Received: 02/02/22 11:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 09:08	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	18556	02/04/22 11:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18649	02/06/22 17:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	18572	02/04/22 12:49	CH	XEN MID
Soluble	Analysis	300.0		1			18733	02/09/22 23:35	CH	XEN MID

Client Sample ID: S-2 0-.5'

Lab Sample ID: 880-10894-3
Matrix: Solid
Date Collected: 02/01/22 12:57
Date Received: 02/02/22 11:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 09:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18556	02/04/22 11:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18649	02/06/22 17:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	18573	02/04/22 12:51	CH	XEN MID
Soluble	Analysis	300.0		5			18737	02/12/22 01:22	SC	XEN MID

Client Sample ID: S-2 1'

Lab Sample ID: 880-10894-4
Matrix: Solid
Date Collected: 02/01/22 12:58
Date Received: 02/02/22 11:10

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	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 10:04	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-2 1'

Lab Sample ID: 880-10894-4
Matrix: Solid
Date Collected: 02/01/22 12:58
Date Received: 02/02/22 11:10

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			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18556	02/04/22 11:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18649	02/06/22 17:53	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	18573	02/04/22 12:51	CH	XEN MID
Soluble	Analysis	300.0		1			18737	02/12/22 01:50	SC	XEN MID

Client Sample ID: S-3 0-.5'

Lab Sample ID: 880-10894-5
Matrix: Solid
Date Collected: 02/01/22 12:59
Date Received: 02/02/22 11:10

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	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 10:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18556	02/04/22 11:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18649	02/06/22 18:16	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18573	02/04/22 12:51	CH	XEN MID
Soluble	Analysis	300.0		10			18737	02/12/22 02:00	SC	XEN MID

Client Sample ID: S-3 1'

Lab Sample ID: 880-10894-6
Matrix: Solid
Date Collected: 02/01/22 13:00
Date Received: 02/02/22 11:10

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	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 11:01	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18556	02/04/22 11:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18649	02/06/22 19:03	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	18573	02/04/22 12:51	CH	XEN MID
Soluble	Analysis	300.0		5			18737	02/12/22 02:09	SC	XEN MID

Client Sample ID: S-4 0-.5'

Lab Sample ID: 880-10894-7
Matrix: Solid
Date Collected: 02/01/22 13:01
Date Received: 02/02/22 11:10

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	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 11:29	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	18556	02/04/22 11:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18649	02/06/22 19:26	AJ	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-4 0-.5'

Date Collected: 02/01/22 13:01
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-7
Matrix: Solid

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	18573	02/04/22 12:51	CH	XEN MID
Soluble	Analysis	300.0		5			18737	02/12/22 02:19	SC	XEN MID

Client Sample ID: S-4 1'

Date Collected: 02/01/22 13:02
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-8
Matrix: Solid

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	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 11:57	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18556	02/04/22 11:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18649	02/06/22 19:49	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	18573	02/04/22 12:51	CH	XEN MID
Soluble	Analysis	300.0		1			18737	02/12/22 02:48	SC	XEN MID

Client Sample ID: S-5 0-.5'

Date Collected: 02/01/22 13:03
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-9
Matrix: Solid

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	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 12:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18556	02/04/22 11:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18649	02/06/22 20:12	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	18573	02/04/22 12:51	CH	XEN MID
Soluble	Analysis	300.0		5			18737	02/12/22 02:57	SC	XEN MID

Client Sample ID: S-5 1'

Date Collected: 02/01/22 13:04
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-10
Matrix: Solid

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	18467	02/03/22 10:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18404	02/04/22 12:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18556	02/04/22 11:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18649	02/06/22 20:36	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18573	02/04/22 12:51	CH	XEN MID
Soluble	Analysis	300.0		5			18737	02/12/22 03:07	SC	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-6 0-.5'

Date Collected: 02/01/22 13:05
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-11

Matrix: Solid

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	18463	02/03/22 09:47	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18462	02/04/22 09:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	18556	02/04/22 11:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18649	02/06/22 21:01	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	18573	02/04/22 12:51	CH	XEN MID
Soluble	Analysis	300.0		1			18737	02/12/22 03:16	SC	XEN MID

Client Sample ID: S-6 1'

Date Collected: 02/01/22 13:06
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-12

Matrix: Solid

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	18463	02/03/22 09:47	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18462	02/04/22 09:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	18556	02/04/22 11:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18649	02/06/22 21:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	18573	02/04/22 12:51	CH	XEN MID
Soluble	Analysis	300.0		1			18737	02/12/22 03:26	SC	XEN MID

Client Sample ID: S-7 0-.5'

Date Collected: 02/01/22 13:07
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-13

Matrix: Solid

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	18463	02/03/22 09:47	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18462	02/04/22 10:08	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18556	02/04/22 11:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18649	02/06/22 21:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18573	02/04/22 12:51	CH	XEN MID
Soluble	Analysis	300.0		1			18737	02/12/22 03:35	SC	XEN MID

Client Sample ID: S-7 1'

Date Collected: 02/01/22 13:08
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-14

Matrix: Solid

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	18463	02/03/22 09:47	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18462	02/04/22 10:29	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Client Sample ID: S-7 1'
Date Collected: 02/01/22 13:08
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-14
Matrix: Solid

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			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	18556	02/04/22 11:03	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18649	02/06/22 22:11	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	18573	02/04/22 12:51	CH	XEN MID
Soluble	Analysis	300.0		1			18737	02/12/22 04:04	SC	XEN MID

Client Sample ID: S-8 0-.5'
Date Collected: 02/01/22 13:09
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-15
Matrix: Solid

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	18463	02/03/22 09:47	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18462	02/04/22 10:49	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID
Total/NA	Analysis	8015 NM		1			18870	02/08/22 16:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18594	02/04/22 13:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18620	02/06/22 01:58	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	18573	02/04/22 12:51	CH	XEN MID
Soluble	Analysis	300.0		5			18737	02/12/22 04:14	SC	XEN MID

Client Sample ID: S-8 1'
Date Collected: 02/01/22 13:10
Date Received: 02/02/22 11:10

Lab Sample ID: 880-10894-16
Matrix: Solid

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	18463	02/03/22 09:47	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	18462	02/04/22 11:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			18617	02/04/22 16:57	MR	XEN MID
Total/NA	Analysis	8015 NM		1			18702	02/07/22 11:51	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	18560	02/04/22 11:12	DM	XEN MID
Total/NA	Analysis	8015B NM		1			18646	02/07/22 01:21	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	18573	02/04/22 12:51	CH	XEN MID
Soluble	Analysis	300.0		5			18737	02/12/22 04:42	SC	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-10894-1
Project/Site: SD 19 CTB - Manifold SDG: 22-0105-4

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	T104704400-21-22	06-30-22

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

Method Summary

Client: Larson & Associates, Inc. Job ID: 880-10894-1
Project/Site: SD 19 CTB - Manifold SDG: 22-0105-4

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
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: Larson & Associates, Inc.
Project/Site: SD 19 CTB - Manifold

Job ID: 880-10894-1
SDG: 22-0105-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-10894-1	S-1 0-.5'	Solid	02/01/22 12:55	02/02/22 11:10
880-10894-2	S-1 1'	Solid	02/01/22 12:56	02/02/22 11:10
880-10894-3	S-2 0-.5'	Solid	02/01/22 12:57	02/02/22 11:10
880-10894-4	S-2 1'	Solid	02/01/22 12:58	02/02/22 11:10
880-10894-5	S-3 0-.5'	Solid	02/01/22 12:59	02/02/22 11:10
880-10894-6	S-3 1'	Solid	02/01/22 13:00	02/02/22 11:10
880-10894-7	S-4 0-.5'	Solid	02/01/22 13:01	02/02/22 11:10
880-10894-8	S-4 1'	Solid	02/01/22 13:02	02/02/22 11:10
880-10894-9	S-5 0-.5'	Solid	02/01/22 13:03	02/02/22 11:10
880-10894-10	S-5 1'	Solid	02/01/22 13:04	02/02/22 11:10
880-10894-11	S-6 0-.5'	Solid	02/01/22 13:05	02/02/22 11:10
880-10894-12	S-6 1'	Solid	02/01/22 13:06	02/02/22 11:10
880-10894-13	S-7 0-.5'	Solid	02/01/22 13:07	02/02/22 11:10
880-10894-14	S-7 1'	Solid	02/01/22 13:08	02/02/22 11:10
880-10894-15	S-8 0-.5'	Solid	02/01/22 13:09	02/02/22 11:10
880-10894-16	S-8 1'	Solid	02/01/22 13:10	02/02/22 11:10

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No. 2446

10894

CHAIN-OF-CUSTODY

2/15/2022

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 202
Midland, TX 79701
432-687-0901

DATE: 2/2/2022 PAGE 1 OF 2

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: SD 19 CTB - MANIFOLD

LAI PROJECT #: 22-0105-04 COLLECTOR: DSG/BN

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: NM/MST

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

PRESERVATION: HCl, HNO_3, H_2SO_4 ☐ NaOH ☐, ICE, UNPRESSERVED

ANALYSES: BTEX ☒ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | OIL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
S-1 0.5'		2/1/22	1255	S	1				X		X		X	X	X													X		
S-1 1'			1256																											
S-2 0.5'			1257																											
S-2 1'			1258																											
S-3 0.5'			1259																											
S-3 1'			1300																											
S-4 0.5'			1301																											
S-4 1'			1302																											
S-5 0.5'			1303																											
S-5 1'			1304																											
S-6 0.5'			1305																											
S-6 1'			1306																											
S-7 0.5'			1307																											
S-7 1'			1308																											
S-8 0.5'			1309																											
TOTAL 15																														

880-10894 Chain of Custody

RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	2/2/2022	[signature] 1110 2/2/22
RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)

LABORATORY: XENCO

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: -0.9/-0.8 THERM#: IR8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

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Received by OCD: 8/23/2023 10:56:44 AM

Released to Imaging: 12/5/2023 3:14:43 PM

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No. 2447

CHAIN-OF-CUSTODY

2/15/2022

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 202
Midland, TX 79701
432-687-0901

DATE: 2/2/2022 PAGE 2 OF 2

PO#: _____ LAB WORK ORDER#: _____

PROJECT LOCATION OR NAME: SD CTB 19 - MANIFOLD

LAI PROJECT #: 22-0105-04 COLLECTOR: DSGIRN

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST/NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH ☐ | ICE | UNPRESSERVED

ANALYSES: BTEX ☒ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | OIL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ CYANIDE ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐	pH ☐ HEXAVALENT CHROMIUM ☐ CYANIDE ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
S-8 1'		2/1/22	1310	S	1				X		X		X	X	X														X			
TOTAL 1																															

RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	2/2/2022	[signature]
RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)

LABORATORY: XENCO

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: ____ THERM#: ____
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # ____
☐ HAND DELIVERED

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Received by OCD: 8/23/2023 10:56:44 AM

Released to Imaging: 12/5/2023 3:14:43 PM

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-10894-1
SDG Number: 22-0105-4

Login Number: 10894
List Number: 1
Creator: Kramer, Jessica

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	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-12315-1
Laboratory Sample Delivery Group: 22-0105-04
Client Project/Site: SD 19 CTB Manifold

For:
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
3/25/2022 9:38:33 AM

Holly Taylor, Project Manager
(806)794-1296
holly.taylor@eurofinset.com

LINKS

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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.

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Laboratory Job ID: 880-12315-1
SDG: 22-0105-04

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-12315-1
Project/Site: SD 19 CTB Manifold SDG: 22-0105-04

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Job ID: 880-12315-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-12315-1

Comments
No additional comments.

Receipt
The samples were received on 3/10/2022 3:05 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 was 0.1º C.

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

GC Semi VOA
Method 8015B NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-21371 and analytical batch 880-21357 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015B NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-21371/3-A). Evidence of matrix interferences is not obvious.

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

General Chemistry
Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-22210 and analytical batch 880-22211 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 300.0: The matrix spike (MS) recoveries for preparation batch 880-21602 and analytical batch 880-22052 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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

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

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-2,1
Date Collected: 03/08/22 12:30
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 22:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 22:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 22:15	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/18/22 08:00	03/18/22 22:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 22:15	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/18/22 08:00	03/18/22 22:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/18/22 08:00*	*03/18/22 22:15*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*03/18/22 08:00*	*03/18/22 22:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/18/22 13:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/14/22 08:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/14/22 08:40	03/14/22 21:56	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/14/22 08:40	03/14/22 21:56	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/14/22 08:40	03/14/22 21:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*104*		*70 - 130*	*03/14/22 08:40*	*03/14/22 21:56*	*1*
o-Terphenyl (Surr)	*101*		*70 - 130*	*03/14/22 08:40*	*03/14/22 21:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5960**		49.8		mg/Kg			03/24/22 02:49	10

Client Sample ID: S-2,3
Date Collected: 03/08/22 12:31
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/18/22 08:00	03/18/22 22:36	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/18/22 08:00	03/18/22 22:36	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/18/22 08:00	03/18/22 22:36	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		03/18/22 08:00	03/18/22 22:36	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/18/22 08:00	03/18/22 22:36	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/18/22 08:00	03/18/22 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/18/22 08:00*	*03/18/22 22:36*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/18/22 08:00*	*03/18/22 22:36*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-2,3

Date Collected: 03/08/22 12:31
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-2

Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/14/22 23:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/14/22 23:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/14/22 23:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*102*		*70 - 130*	*03/14/22 08:40*	*03/14/22 23:00*	*1*
o-Terphenyl (Surr)	*101*		*70 - 130*	*03/14/22 08:40*	*03/14/22 23:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4350**		24.9		mg/Kg			03/24/22 02:58	5

Client Sample ID: S-2,5

Date Collected: 03/08/22 12:32
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/18/22 22:57	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/18/22 22:57	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/18/22 22:57	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		03/18/22 08:00	03/18/22 22:57	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/18/22 22:57	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/18/22 08:00	03/18/22 22:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/18/22 08:00*	*03/18/22 22:57*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/18/22 08:00*	*03/18/22 22:57*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/14/22 23:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/14/22 08:40	03/14/22 23:22	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-2,5
Date Collected: 03/08/22 12:32
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/14/22 08:40	03/14/22 23:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*111*		*70 - 130*	*03/14/22 08:40*	*03/14/22 23:22*	*1*
o-Terphenyl (Surr)	*107*		*70 - 130*	*03/14/22 08:40*	*03/14/22 23:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3420**		25.0		mg/Kg			03/24/22 03:07	5

Client Sample ID: S-2,10
Date Collected: 03/08/22 12:33
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 23:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 23:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 23:17	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/18/22 08:00	03/18/22 23:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 23:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/18/22 08:00	03/18/22 23:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*03/18/22 08:00*	*03/18/22 23:17*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*03/18/22 08:00*	*03/18/22 23:17*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/18/22 13:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/14/22 08:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/14/22 08:40	03/14/22 23:44	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/14/22 08:40	03/14/22 23:44	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/14/22 08:40	03/14/22 23:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*118*		*70 - 130*	*03/14/22 08:40*	*03/14/22 23:44*	*1*
o-Terphenyl (Surr)	*118*		*70 - 130*	*03/14/22 08:40*	*03/14/22 23:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.7**		5.00		mg/Kg			03/24/22 03:34	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-3.1
Date Collected: 03/08/22 11:05
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-5
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/18/22 23:38	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/18/22 23:38	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/18/22 23:38	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		03/18/22 08:00	03/18/22 23:38	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/18/22 23:38	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/18/22 08:00	03/18/22 23:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*03/18/22 08:00*	*03/18/22 23:38*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/18/22 08:00*	*03/18/22 23:38*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/15/22 00:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 00:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 00:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*106*		*70 - 130*	*03/14/22 08:40*	*03/15/22 00:03*	*1*
o-Terphenyl (Surr)	*106*		*70 - 130*	*03/14/22 08:40*	*03/15/22 00:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7370**		49.7		mg/Kg			03/24/22 03:42	10

Client Sample ID: S-3,3
Date Collected: 03/08/22 11:06
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-6
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 23:58	1
Toluene	**0.00310**		0.00200		mg/Kg		03/18/22 08:00	03/18/22 23:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 23:58	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		03/18/22 08:00	03/18/22 23:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 23:58	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/18/22 08:00	03/18/22 23:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/18/22 08:00*	*03/18/22 23:58*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/18/22 08:00*	*03/18/22 23:58*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-3,3

Date Collected: 03/08/22 11:06
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-6

Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/18/22 13:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**185**		50.0		mg/Kg			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/15/22 00:23	1
Diesel Range Organics (Over C10-C28)	**185**		50.0		mg/Kg		03/14/22 08:40	03/15/22 00:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 00:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*110*		*70 - 130*	*03/14/22 08:40*	*03/15/22 00:23*	*1*
o-Terphenyl (Surr)	*107*		*70 - 130*	*03/14/22 08:40*	*03/15/22 00:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20700**		248		mg/Kg			03/24/22 03:51	50

Client Sample ID: S-3,5

Date Collected: 03/08/22 11:07
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-7

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/19/22 00:19	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/19/22 00:19	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/19/22 00:19	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		03/18/22 08:00	03/19/22 00:19	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/19/22 00:19	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/18/22 08:00	03/19/22 00:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*03/18/22 08:00*	*03/19/22 00:19*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*03/18/22 08:00*	*03/19/22 00:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/15/22 00:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/14/22 08:40	03/15/22 00:43	1

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-3,5
Date Collected: 03/08/22 11:07
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-7
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/14/22 08:40	03/15/22 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*105*		*70 - 130*	*03/14/22 08:40*	*03/15/22 00:43*	*1*
o-Terphenyl (Surr)	*103*		*70 - 130*	*03/14/22 08:40*	*03/15/22 00:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4850**		50.2		mg/Kg			03/24/22 04:00	10

Client Sample ID: S-3,10
Date Collected: 03/08/22 11:08
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-8
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/18/22 08:00	03/19/22 00:40	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/18/22 08:00	03/19/22 00:40	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/18/22 08:00	03/19/22 00:40	1
m,p-Xylenes	<0.00397	U	0.00397		mg/Kg		03/18/22 08:00	03/19/22 00:40	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/18/22 08:00	03/19/22 00:40	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/18/22 08:00	03/19/22 00:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/18/22 08:00*	*03/19/22 00:40*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/18/22 08:00*	*03/19/22 00:40*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/15/22 01:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 01:04	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*109*		*70 - 130*	*03/14/22 08:40*	*03/15/22 01:04*	*1*
o-Terphenyl (Surr)	*109*		*70 - 130*	*03/14/22 08:40*	*03/15/22 01:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3560**		24.9		mg/Kg			03/24/22 04:09	5

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-3,14

Date Collected: 03/08/22 11:09
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-9

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/19/22 01:00	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/19/22 01:00	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/19/22 01:00	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		03/18/22 08:00	03/19/22 01:00	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/18/22 08:00	03/19/22 01:00	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/18/22 08:00	03/19/22 01:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/18/22 08:00*	*03/19/22 01:00*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/18/22 08:00*	*03/19/22 01:00*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/15/22 01:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 01:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*116*		*70 - 130*	*03/14/22 08:40*	*03/15/22 01:24*	*1*
o-Terphenyl (Surr)	*117*		*70 - 130*	*03/14/22 08:40*	*03/15/22 01:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**881**	**F1**	4.99		mg/Kg			03/24/22 04:18	1

Client Sample ID: S-5,1

Date Collected: 03/08/22 13:00
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-10

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/18/22 08:00	03/19/22 01:21	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/18/22 08:00	03/19/22 01:21	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/18/22 08:00	03/19/22 01:21	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		03/18/22 08:00	03/19/22 01:21	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/18/22 08:00	03/19/22 01:21	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/18/22 08:00	03/19/22 01:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*03/18/22 08:00*	*03/19/22 01:21*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/18/22 08:00*	*03/19/22 01:21*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-5,1
Date Collected: 03/08/22 13:00
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-10
Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/15/22 01:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/14/22 08:40	03/15/22 01:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/14/22 08:40	03/15/22 01:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*106*		*70 - 130*	*03/14/22 08:40*	*03/15/22 01:44*	*1*
o-Terphenyl (Surr)	*105*		*70 - 130*	*03/14/22 08:40*	*03/15/22 01:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	111		5.00		mg/Kg			03/24/22 15:50	1

Client Sample ID: S-5,3
Date Collected: 03/08/22 13:01
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-11
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/19/22 09:25	03/19/22 12:57	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/19/22 09:25	03/19/22 12:57	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/19/22 09:25	03/19/22 12:57	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		03/19/22 09:25	03/19/22 12:57	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/19/22 09:25	03/19/22 12:57	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		03/19/22 09:25	03/19/22 12:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/19/22 09:25*	*03/19/22 12:57*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*03/19/22 09:25*	*03/19/22 12:57*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/15/22 02:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 02:24	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-5,3

Date Collected: 03/08/22 13:01
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-11
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 02:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*103*		*70 - 130*	*03/14/22 08:40*	*03/15/22 02:24*	*1*
o-Terphenyl (Surr)	*102*		*70 - 130*	*03/14/22 08:40*	*03/15/22 02:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**158**		4.95		mg/Kg			03/24/22 04:53	1

Client Sample ID: S-5,5

Date Collected: 03/08/22 13:02
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-12
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/19/22 09:25	03/19/22 13:18	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/19/22 09:25	03/19/22 13:18	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/19/22 09:25	03/19/22 13:18	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		03/19/22 09:25	03/19/22 13:18	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/19/22 09:25	03/19/22 13:18	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/19/22 09:25	03/19/22 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/19/22 09:25*	*03/19/22 13:18*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/19/22 09:25*	*03/19/22 13:18*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/15/22 02:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 02:45	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 02:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*107*		*70 - 130*	*03/14/22 08:40*	*03/15/22 02:45*	*1*
o-Terphenyl (Surr)	*107*		*70 - 130*	*03/14/22 08:40*	*03/15/22 02:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			03/24/22 05:20	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-5,10

Date Collected: 03/08/22 13:03
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-13

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 13:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 13:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 13:38	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		03/19/22 09:25	03/19/22 13:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 13:38	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/19/22 09:25	03/19/22 13:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/19/22 09:25*	*03/19/22 13:38*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*03/19/22 09:25*	*03/19/22 13:38*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/15/22 03:04	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/14/22 08:40	03/15/22 03:04	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/14/22 08:40	03/15/22 03:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*103*		*70 - 130*	*03/14/22 08:40*	*03/15/22 03:04*	*1*
o-Terphenyl (Surr)	*105*		*70 - 130*	*03/14/22 08:40*	*03/15/22 03:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.2**		5.04		mg/Kg			03/24/22 05:29	1

Client Sample ID: S-8,1

Date Collected: 03/08/22 13:45
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-14

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 13:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 13:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 13:59	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/19/22 09:25	03/19/22 13:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 13:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/19/22 09:25	03/19/22 13:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/19/22 09:25*	*03/19/22 13:59*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/19/22 09:25*	*03/19/22 13:59*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-8,1
Date Collected: 03/08/22 13:45
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-14
Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/15/22 03:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 03:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 03:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*111*		*70 - 130*	*03/14/22 08:40*	*03/15/22 03:24*	*1*
o-Terphenyl (Surr)	*110*		*70 - 130*	*03/14/22 08:40*	*03/15/22 03:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**822**		24.9		mg/Kg			03/24/22 05:37	5

Client Sample ID: S-8,3
Date Collected: 03/08/22 13:46
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-15
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 14:19	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 14:19	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 14:19	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		03/19/22 09:25	03/19/22 14:19	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 14:19	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/19/22 09:25	03/19/22 14:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/19/22 09:25*	*03/19/22 14:19*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*03/19/22 09:25*	*03/19/22 14:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/15/22 03:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/14/22 08:40	03/15/22 03:44	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-8,3
Date Collected: 03/08/22 13:46
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-15
Matrix: Solid

Method: 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		03/14/22 08:40	03/15/22 03:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*100*		*70 - 130*	*03/14/22 08:40*	*03/15/22 03:44*	*1*
o-Terphenyl (Surr)	*100*		*70 - 130*	*03/14/22 08:40*	*03/15/22 03:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.6**		5.00		mg/Kg			03/24/22 05:46	1

Client Sample ID: S-8,5
Date Collected: 03/08/22 13:47
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-16
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 14:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 14:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 14:40	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		03/19/22 09:25	03/19/22 14:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 14:40	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/19/22 09:25	03/19/22 14:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/19/22 09:25*	*03/19/22 14:40*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/19/22 09:25*	*03/19/22 14:40*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/15/22 04:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 04:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 04:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*109*		*70 - 130*	*03/14/22 08:40*	*03/15/22 04:05*	*1*
o-Terphenyl (Surr)	*109*		*70 - 130*	*03/14/22 08:40*	*03/15/22 04:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.5**		4.98		mg/Kg			03/24/22 05:55	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-8,10

Date Collected: 03/08/22 13:48
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-17

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/19/22 09:25	03/19/22 15:00	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/19/22 09:25	03/19/22 15:00	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/19/22 09:25	03/19/22 15:00	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		03/19/22 09:25	03/19/22 15:00	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/19/22 09:25	03/19/22 15:00	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/19/22 09:25	03/19/22 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/19/22 09:25*	*03/19/22 15:00*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*03/19/22 09:25*	*03/19/22 15:00*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			03/18/22 13:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			03/14/22 08:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/14/22 08:40	03/15/22 04:24	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/14/22 08:40	03/15/22 04:24	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/14/22 08:40	03/15/22 04:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*104*		*70 - 130*	*03/14/22 08:40*	*03/15/22 04:24*	*1*
o-Terphenyl (Surr)	*103*		*70 - 130*	*03/14/22 08:40*	*03/15/22 04:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.26**		4.98		mg/Kg			03/24/22 06:04	1

Client Sample ID: S-9,0.5

Date Collected: 03/08/22 10:15
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-18

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 15:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 15:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 15:21	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		03/19/22 09:25	03/19/22 15:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 15:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/19/22 09:25	03/19/22 15:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/19/22 09:25*	*03/19/22 15:21*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/19/22 09:25*	*03/19/22 15:21*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-9,0.5
Date Collected: 03/08/22 10:15
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-18
Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/15/22 04:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/14/22 08:40	03/15/22 04:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/14/22 08:40	03/15/22 04:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*104*		*70 - 130*	*03/14/22 08:40*	*03/15/22 04:44*	*1*
o-Terphenyl (Surr)	*103*		*70 - 130*	*03/14/22 08:40*	*03/15/22 04:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**327**		25.0		mg/Kg			03/24/22 15:59	5

Client Sample ID: S-9,1
Date Collected: 03/08/22 10:16
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-19
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 15:41	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 15:41	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 15:41	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		03/19/22 09:25	03/19/22 15:41	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 15:41	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/19/22 09:25	03/19/22 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*03/19/22 09:25*	*03/19/22 15:41*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/19/22 09:25*	*03/19/22 15:41*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/15/22 05:04	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		03/14/22 08:40	03/15/22 05:04	1

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-9,1
Date Collected: 03/08/22 10:16
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-19
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/14/22 08:40	03/15/22 05:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*102*		*70 - 130*	*03/14/22 08:40*	*03/15/22 05:04*	*1*
o-Terphenyl (Surr)	*100*		*70 - 130*	*03/14/22 08:40*	*03/15/22 05:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**224**		25.0		mg/Kg			03/23/22 15:32	5

Client Sample ID: S-10,0.5
Date Collected: 03/08/22 10:40
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-20
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 16:02	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 16:02	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 16:02	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		03/19/22 09:25	03/19/22 16:02	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/19/22 09:25	03/19/22 16:02	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/19/22 09:25	03/19/22 16:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/19/22 09:25*	*03/19/22 16:02*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*03/19/22 09:25*	*03/19/22 16:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/18/22 13:18	1

Method: 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			03/14/22 08:40	1

Method: 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		03/14/22 08:40	03/15/22 05:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 05:24	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/15/22 05:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*109*		*70 - 130*	*03/14/22 08:40*	*03/15/22 05:24*	*1*
o-Terphenyl (Surr)	*106*		*70 - 130*	*03/14/22 08:40*	*03/15/22 05:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**349**		4.95		mg/Kg			03/23/22 15:59	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-10,1
Date Collected: 03/08/22 10:41
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-21
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/17/22 08:30	03/17/22 18:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/17/22 08:30	03/17/22 18:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/17/22 08:30	03/17/22 18:14	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		03/17/22 08:30	03/17/22 18:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/17/22 08:30	03/17/22 18:14	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/17/22 08:30	03/17/22 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/17/22 08:30*	*03/17/22 18:14*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/17/22 08:30*	*03/17/22 18:14*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/18/22 13:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**89.1**		50.0		mg/Kg			03/14/22 08:40	1

Method: 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		03/11/22 09:52	03/12/22 08:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/11/22 09:52	03/12/22 08:23	1
Oil Range Organics (Over C28-C36)	**89.1**		50.0		mg/Kg		03/11/22 09:52	03/12/22 08:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*97*		*70 - 130*	*03/11/22 09:52*	*03/12/22 08:23*	*1*
o-Terphenyl (Surr)	*98*		*70 - 130*	*03/11/22 09:52*	*03/12/22 08:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**130**		5.04		mg/Kg			03/23/22 16:07	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-12315-1	S-2,1	101	107
880-12315-1 MS	S-2,1	105	110
880-12315-1 MSD	S-2,1	108	113
880-12315-2	S-2,3	105	109
880-12315-3	S-2,5	105	108
880-12315-4	S-2,10	102	107
880-12315-5	S-3.1	102	109
880-12315-6	S-3,3	104	109
880-12315-7	S-3,5	108	110
880-12315-8	S-3,10	106	109
880-12315-9	S-3,14	106	109
880-12315-10	S-5,1	102	105
880-12315-11	S-5,3	104	110
880-12315-11 MS	S-5,3	104	111
880-12315-11 MSD	S-5,3	105	111
880-12315-12	S-5,5	105	101
880-12315-13	S-5,10	107	110
880-12315-14	S-8,1	103	108
880-12315-15	S-8,3	106	111
880-12315-16	S-8,5	104	109
880-12315-17	S-8,10	103	108
880-12315-18	S-9,0.5	105	109
880-12315-19	S-9,1	105	109
880-12315-20	S-10,0.5	104	107
880-12315-21	S-10,1	106	105
880-12320-A-3-F MS	Matrix Spike	112	89
880-12320-A-3-G MSD	Matrix Spike Duplicate	128	97
LCS 880-21697/1-A	Lab Control Sample	98	100
LCS 880-21700/1-A	Lab Control Sample	101	111
LCS 880-21935/1-A	Lab Control Sample	103	111
LCSD 880-21697/2-A	Lab Control Sample Dup	99	100
LCSD 880-21700/2-A	Lab Control Sample Dup	103	111
LCSD 880-21935/2-A	Lab Control Sample Dup	104	112
MB 880-21697/5-A	Method Blank	97	100
MB 880-21700/5-A	Method Blank	100	104
MB 880-21732/5-A	Method Blank	101	104
MB 880-21935/5-A	Method Blank	104	105

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**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-12309-A-1-B MS	Matrix Spike	106	91
880-12309-A-1-C MSD	Matrix Spike Duplicate	103	89

Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-12315-1
Project/Site: SD 19 CTB Manifold SDG: 22-0105-04

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)								
880-12315-1	S-2,1	104	101								
880-12315-1 MS	S-2,1	97	82								
880-12315-1 MSD	S-2,1	113	101								
880-12315-2	S-2,3	102	101								
880-12315-3	S-2,5	111	107								
880-12315-4	S-2,10	118	118								
880-12315-5	S-3.1	106	106								
880-12315-6	S-3,3	110	107								
880-12315-7	S-3,5	105	103								
880-12315-8	S-3,10	109	109								
880-12315-9	S-3,14	116	117								
880-12315-10	S-5,1	106	105								
880-12315-11	S-5,3	103	102								
880-12315-12	S-5,5	107	107								
880-12315-13	S-5,10	103	105								
880-12315-14	S-8,1	111	110								
880-12315-15	S-8,3	100	100								
880-12315-16	S-8,5	109	109								
880-12315-17	S-8,10	104	103								
880-12315-18	S-9,0.5	104	103								
880-12315-19	S-9,1	102	100								
880-12315-20	S-10,0.5	109	106								
880-12315-21	S-10,1	97	98								
LCS 880-21371/2-A	Lab Control Sample	110	97								
LCS 880-21468/2-A	Lab Control Sample	123	125								
LCSD 880-21371/3-A	Lab Control Sample Dup	132 S1+	120								
LCSD 880-21468/3-A	Lab Control Sample Dup	108	114								
MB 880-21371/1-A	Method Blank	125	126								
MB 880-21468/1-A	Method Blank	127	132 S1+								

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-21697/5-A
Matrix: Solid
Analysis Batch: 21774

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21697

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/17/22 08:30	03/17/22 12:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/17/22 08:30	03/17/22 12:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/17/22 08:30	03/17/22 12:07	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/17/22 08:30	03/17/22 12:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/17/22 08:30	03/17/22 12:07	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/17/22 08:30	03/17/22 12:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*03/17/22 08:30*	*03/17/22 12:07*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/17/22 08:30*	*03/17/22 12:07*	*1*

Lab Sample ID: LCS 880-21697/1-A
Matrix: Solid
Analysis Batch: 21774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21697

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08591		mg/Kg		86	70 - 130		
Toluene			0.100	0.08605		mg/Kg		86	70 - 130		
Ethylbenzene			0.100	0.08745		mg/Kg		87	70 - 130		
m,p-Xylenes			0.200	0.2003		mg/Kg		100	70 - 130		
o-Xylene			0.100	0.1012		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-21697/2-A
Matrix: Solid
Analysis Batch: 21774

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21697

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1022		mg/Kg		102	70 - 130	17	35
Toluene			0.100	0.09993		mg/Kg		100	70 - 130	15	35
Ethylbenzene			0.100	0.09959		mg/Kg		100	70 - 130	13	35
m,p-Xylenes			0.200	0.2354		mg/Kg		118	70 - 130	16	35
o-Xylene			0.100	0.1145		mg/Kg		115	70 - 130	12	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 880-12320-A-3-F MS
Matrix: Solid
Analysis Batch: 21774

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21697

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00201	U	0.0998	0.07400		mg/Kg		73	70 - 130		
Toluene	<0.00201	U	0.0998	0.08657		mg/Kg		85	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

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

Lab Sample ID: 880-12320-A-3-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21774 — **Prep Batch: 21697**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00201	U	0.0998	0.08452		mg/Kg		84	70 - 130
m,p-Xylenes	<0.00402	U	0.200	0.2012		mg/Kg		101	70 - 130
o-Xylene	<0.00201	U	0.0998	0.09510		mg/Kg		95	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: 880-12320-A-3-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21774 — **Prep Batch: 21697**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.101	0.08368		mg/Kg		82	70 - 130	12	35
Toluene	<0.00201	U	0.101	0.09310		mg/Kg		91	70 - 130	7	35
Ethylbenzene	<0.00201	U	0.101	0.09334		mg/Kg		92	70 - 130	10	35
m,p-Xylenes	<0.00402	U	0.202	0.2269		mg/Kg		113	70 - 130	12	35
o-Xylene	<0.00201	U	0.101	0.1095		mg/Kg		109	70 - 130	14	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: MB 880-21700/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21846 — **Prep Batch: 21700**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 21:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 21:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 21:54	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/18/22 08:00	03/18/22 21:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 21:54	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/18/22 08:00	03/18/22 21:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*03/18/22 08:00*	*03/18/22 21:54*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/18/22 08:00*	*03/18/22 21:54*	*1*

Lab Sample ID: LCS 880-21700/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21846 — **Prep Batch: 21700**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09804		mg/Kg		98	70 - 130
Toluene	0.100	0.09504		mg/Kg		95	70 - 130
Ethylbenzene	0.100	0.09412		mg/Kg		94	70 - 130
m,p-Xylenes	0.200	0.1934		mg/Kg		97	70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

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

Lab Sample ID: LCS 880-21700/1-A
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21700

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
o-Xylene			0.100	0.09571		mg/Kg		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: LCSD 880-21700/2-A
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21700

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09964		mg/Kg		100	70 - 130	2	35
Toluene			0.100	0.09742		mg/Kg		97	70 - 130	2	35
Ethylbenzene			0.100	0.09726		mg/Kg		97	70 - 130	3	35
m,p-Xylenes			0.200	0.2002		mg/Kg		100	70 - 130	4	35
o-Xylene			0.100	0.09908		mg/Kg		99	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: 880-12315-1 MS
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: S-2,1
Prep Type: Total/NA
Prep Batch: 21700

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.101	0.08424		mg/Kg		84	70 - 130		
Toluene	<0.00200	U	0.101	0.08230		mg/Kg		82	70 - 130		
Ethylbenzene	<0.00200	U	0.101	0.08150		mg/Kg		81	70 - 130		
m,p-Xylenes	<0.00400	U	0.201	0.1685		mg/Kg		84	70 - 130		
o-Xylene	<0.00200	U	0.101	0.08253		mg/Kg		82	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 880-12315-1 MSD
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: S-2,1
Prep Type: Total/NA
Prep Batch: 21700

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.09062		mg/Kg		90	70 - 130	7	35
Toluene	<0.00200	U	0.100	0.08739		mg/Kg		87	70 - 130	6	35
Ethylbenzene	<0.00200	U	0.100	0.08441		mg/Kg		84	70 - 130	4	35
m,p-Xylenes	<0.00400	U	0.200	0.1740		mg/Kg		87	70 - 130	3	35
o-Xylene	<0.00200	U	0.100	0.08511		mg/Kg		85	70 - 130	3	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

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

Lab Sample ID: 880-12315-1 MSD
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: S-2,1
Prep Type: Total/NA
Prep Batch: 21700

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Lab Sample ID: MB 880-21732/5-A
Matrix: Solid
Analysis Batch: 21846

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21732

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 10:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 10:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 10:33	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/18/22 08:00	03/18/22 10:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/18/22 08:00	03/18/22 10:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/18/22 08:00	03/18/22 10:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	03/18/22 08:00	03/18/22 10:33	1
1,4-Difluorobenzene (Surr)	104		70 - 130	03/18/22 08:00	03/18/22 10:33	1

Lab Sample ID: MB 880-21935/5-A
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21935

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/19/22 09:25	03/19/22 12:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/19/22 09:25	03/19/22 12:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	03/19/22 09:25	03/19/22 12:36	1
1,4-Difluorobenzene (Surr)	105		70 - 130	03/19/22 09:25	03/19/22 12:36	1

Lab Sample ID: LCS 880-21935/1-A
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21935

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1011		mg/Kg		101	70 - 130		
Toluene			0.100	0.1005		mg/Kg		100	70 - 130		
Ethylbenzene			0.100	0.1025		mg/Kg		102	70 - 130		
m,p-Xylenes			0.200	0.2105		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.1021		mg/Kg		102	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

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

Lab Sample ID: LCS 880-21935/1-A
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21935

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: LCSD 880-21935/2-A
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21935

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1095		mg/Kg		109	70 - 130	8	35
Toluene			0.100	0.1081		mg/Kg		108	70 - 130	7	35
Ethylbenzene			0.100	0.1096		mg/Kg		110	70 - 130	7	35
m,p-Xylenes			0.200	0.2259		mg/Kg		113	70 - 130	7	35
o-Xylene			0.100	0.1096		mg/Kg		110	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: 880-12315-11 MS
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: S-5,3
Prep Type: Total/NA
Prep Batch: 21935

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00202	U	0.100	0.08164		mg/Kg		81	70 - 130
Toluene	<0.00202	U	0.100	0.07915		mg/Kg		79	70 - 130
Ethylbenzene	<0.00202	U	0.100	0.07729		mg/Kg		77	70 - 130
m,p-Xylenes	<0.00404	U	0.200	0.1611		mg/Kg		80	70 - 130
o-Xylene	<0.00202	U	0.100	0.07937		mg/Kg		79	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: 880-12315-11 MSD
Matrix: Solid
Analysis Batch: 21936

Client Sample ID: S-5,3
Prep Type: Total/NA
Prep Batch: 21935

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.08491		mg/Kg		85	70 - 130	4	35
Toluene	<0.00202	U	0.100	0.08152		mg/Kg		81	70 - 130	3	35
Ethylbenzene	<0.00202	U	0.100	0.08010		mg/Kg		80	70 - 130	4	35
m,p-Xylenes	<0.00404	U	0.200	0.1651		mg/Kg		82	70 - 130	2	35
o-Xylene	<0.00202	U	0.100	0.08108		mg/Kg		81	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

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

Lab Sample ID: MB 880-21371/1-A
Matrix: Solid
Analysis Batch: 21357

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21371

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/11/22 09:52	03/12/22 05:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/11/22 09:52	03/12/22 05:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/11/22 09:52	03/12/22 05:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*125*		*70 - 130*	*03/11/22 09:52*	*03/12/22 05:08*	*1*
o-Terphenyl (Surr)	*126*		*70 - 130*	*03/11/22 09:52*	*03/12/22 05:08*	*1*

Lab Sample ID: LCS 880-21371/2-A
Matrix: Solid
Analysis Batch: 21357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21371

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	848.4		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1009		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*110*		*70 - 130*
o-Terphenyl (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-21371/3-A
Matrix: Solid
Analysis Batch: 21357

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21371

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	955.3		mg/Kg		96	70 - 130	12	20
Diesel Range Organics (Over C10-C28)			1000	1220		mg/Kg		122	70 - 130	19	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*132*	*S1+*	*70 - 130*
o-Terphenyl (Surr)	*120*		*70 - 130*

Lab Sample ID: 880-12309-A-1-B MS
Matrix: Solid
Analysis Batch: 21357

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21371

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U F1	998	1444	F1	mg/Kg		141	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U F1	998	1460	F1	mg/Kg		146	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

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

Lab Sample ID: 880-12309-A-1-B MS
Matrix: Solid
Analysis Batch: 21357

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 21371

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	106		70 - 130
o-Terphenyl (Surr)	91		70 - 130

Lab Sample ID: 880-12309-A-1-C MSD
Matrix: Solid
Analysis Batch: 21357

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 21371

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	<49.8	U F1	998	1422	F1	mg/Kg		139	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.8	U F1	998	1426	F1	mg/Kg		143	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane (Surr)	103		70 - 130
o-Terphenyl (Surr)	89		70 - 130

Lab Sample ID: MB 880-21468/1-A
Matrix: Solid
Analysis Batch: 21456

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21468

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/14/22 20:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/14/22 20:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/14/22 08:40	03/14/22 20:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	127		70 - 130	03/14/22 08:40	03/14/22 20:54	1
o-Terphenyl (Surr)	132	S1+	70 - 130	03/14/22 08:40	03/14/22 20:54	1

Lab Sample ID: LCS 880-21468/2-A
Matrix: Solid
Analysis Batch: 21456

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21468

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	959.2		mg/Kg		96	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1105		mg/Kg		111	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	123		70 - 130
o-Terphenyl (Surr)	125		70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

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

Lab Sample ID: LCSD 880-21468/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21456 — **Prep Batch: 21468**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	851.8		mg/Kg		85	70 - 130	12	20
Diesel Range Organics (Over C10-C28)			1000	1095		mg/Kg		109	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*108*		*70 - 130*
o-Terphenyl (Surr)	*114*		*70 - 130*

Lab Sample ID: 880-12315-1 MS — **Client Sample ID: S-2,1**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21456 — **Prep Batch: 21468**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	1101		mg/Kg		110	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U	998	987.0		mg/Kg		99	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*97*		*70 - 130*
o-Terphenyl (Surr)	*82*		*70 - 130*

Lab Sample ID: 880-12315-1 MSD — **Client Sample ID: S-2,1**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 21456 — **Prep Batch: 21468**

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	<49.8	U	998	1185		mg/Kg		119	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	<49.8	U	998	1196		mg/Kg		120	70 - 130	19	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*113*		*70 - 130*
o-Terphenyl (Surr)	*101*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-21602/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 22052

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/24/22 01:47	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-21602/2-A
Matrix: Solid
Analysis Batch: 22052

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	271.9		mg/Kg		109	90 - 110		

Lab Sample ID: LCSD 880-21602/3-A
Matrix: Solid
Analysis Batch: 22052

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	272.8		mg/Kg		109	90 - 110	0	20

Lab Sample ID: 880-12315-9 MS
Matrix: Solid
Analysis Batch: 22052

Client Sample ID: S-3,14
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	881	F1	250	1102	F1	mg/Kg		88	90 - 110		

Lab Sample ID: 880-12315-9 MSD
Matrix: Solid
Analysis Batch: 22052

Client Sample ID: S-3,14
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	881	F1	250	1118		mg/Kg		95	90 - 110	1	20

Lab Sample ID: MB 880-22210/1-A
Matrix: Solid
Analysis Batch: 22211

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			03/23/22 14:12	1

Lab Sample ID: LCS 880-22210/2-A
Matrix: Solid
Analysis Batch: 22211

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	268.8		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-22210/3-A
Matrix: Solid
Analysis Batch: 22211

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	270.3		mg/Kg		108	90 - 110	1	20

Lab Sample ID: 880-12712-A-1-F MS
Matrix: Solid
Analysis Batch: 22211

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	1500		1250	2878		mg/Kg		110	90 - 110		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 880-12712-A-1-G MSD
Matrix: Solid
Analysis Batch: 22211

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	1500		1250	2877		mg/Kg		110	90 - 110	0	20

Lab Sample ID: 890-2112-A-3-H MS
Matrix: Solid
Analysis Batch: 22211

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	7.48	F1	249	286.4	F1	mg/Kg		112	90 - 110

Lab Sample ID: 890-2112-A-3-I MSD
Matrix: Solid
Analysis Batch: 22211

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	7.48	F1	249	287.5	F1	mg/Kg		113	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

GC VOA

Prep Batch: 21697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-21	S-10,1	Total/NA	Solid	5035	
MB 880-21697/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-21697/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21697/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12320-A-3-F MS	Matrix Spike	Total/NA	Solid	5035	
880-12320-A-3-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 21700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-1	S-2,1	Total/NA	Solid	5035	
880-12315-2	S-2,3	Total/NA	Solid	5035	
880-12315-3	S-2,5	Total/NA	Solid	5035	
880-12315-4	S-2,10	Total/NA	Solid	5035	
880-12315-5	S-3.1	Total/NA	Solid	5035	
880-12315-6	S-3,3	Total/NA	Solid	5035	
880-12315-7	S-3,5	Total/NA	Solid	5035	
880-12315-8	S-3,10	Total/NA	Solid	5035	
880-12315-9	S-3,14	Total/NA	Solid	5035	
880-12315-10	S-5,1	Total/NA	Solid	5035	
MB 880-21700/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-21700/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21700/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12315-1 MS	S-2,1	Total/NA	Solid	5035	
880-12315-1 MSD	S-2,1	Total/NA	Solid	5035	

Prep Batch: 21732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-21732/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 21774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-21	S-10,1	Total/NA	Solid	8021B	21697
MB 880-21697/5-A	Method Blank	Total/NA	Solid	8021B	21697
LCS 880-21697/1-A	Lab Control Sample	Total/NA	Solid	8021B	21697
LCSD 880-21697/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21697
880-12320-A-3-F MS	Matrix Spike	Total/NA	Solid	8021B	21697
880-12320-A-3-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	21697

Analysis Batch: 21846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-1	S-2,1	Total/NA	Solid	8021B	21700
880-12315-2	S-2,3	Total/NA	Solid	8021B	21700
880-12315-3	S-2,5	Total/NA	Solid	8021B	21700
880-12315-4	S-2,10	Total/NA	Solid	8021B	21700
880-12315-5	S-3.1	Total/NA	Solid	8021B	21700
880-12315-6	S-3,3	Total/NA	Solid	8021B	21700
880-12315-7	S-3,5	Total/NA	Solid	8021B	21700
880-12315-8	S-3,10	Total/NA	Solid	8021B	21700
880-12315-9	S-3,14	Total/NA	Solid	8021B	21700
880-12315-10	S-5,1	Total/NA	Solid	8021B	21700
MB 880-21700/5-A	Method Blank	Total/NA	Solid	8021B	21700

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

GC VOA (Continued)

Analysis Batch: 21846 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-21732/5-A	Method Blank	Total/NA	Solid	8021B	21732
LCS 880-21700/1-A	Lab Control Sample	Total/NA	Solid	8021B	21700
LCSD 880-21700/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21700
880-12315-1 MS	S-2,1	Total/NA	Solid	8021B	21700
880-12315-1 MSD	S-2,1	Total/NA	Solid	8021B	21700

Analysis Batch: 21900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-1	S-2,1	Total/NA	Solid	Total BTEX	
880-12315-2	S-2,3	Total/NA	Solid	Total BTEX	
880-12315-3	S-2,5	Total/NA	Solid	Total BTEX	
880-12315-4	S-2,10	Total/NA	Solid	Total BTEX	
880-12315-5	S-3.1	Total/NA	Solid	Total BTEX	
880-12315-6	S-3,3	Total/NA	Solid	Total BTEX	
880-12315-7	S-3,5	Total/NA	Solid	Total BTEX	
880-12315-8	S-3,10	Total/NA	Solid	Total BTEX	
880-12315-9	S-3,14	Total/NA	Solid	Total BTEX	
880-12315-10	S-5,1	Total/NA	Solid	Total BTEX	
880-12315-11	S-5,3	Total/NA	Solid	Total BTEX	
880-12315-12	S-5,5	Total/NA	Solid	Total BTEX	
880-12315-13	S-5,10	Total/NA	Solid	Total BTEX	
880-12315-14	S-8,1	Total/NA	Solid	Total BTEX	
880-12315-15	S-8,3	Total/NA	Solid	Total BTEX	
880-12315-16	S-8,5	Total/NA	Solid	Total BTEX	
880-12315-17	S-8,10	Total/NA	Solid	Total BTEX	
880-12315-18	S-9,0.5	Total/NA	Solid	Total BTEX	
880-12315-19	S-9,1	Total/NA	Solid	Total BTEX	
880-12315-20	S-10,0.5	Total/NA	Solid	Total BTEX	
880-12315-21	S-10,1	Total/NA	Solid	Total BTEX	

Prep Batch: 21935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-11	S-5,3	Total/NA	Solid	5035	
880-12315-12	S-5,5	Total/NA	Solid	5035	
880-12315-13	S-5,10	Total/NA	Solid	5035	
880-12315-14	S-8,1	Total/NA	Solid	5035	
880-12315-15	S-8,3	Total/NA	Solid	5035	
880-12315-16	S-8,5	Total/NA	Solid	5035	
880-12315-17	S-8,10	Total/NA	Solid	5035	
880-12315-18	S-9,0.5	Total/NA	Solid	5035	
880-12315-19	S-9,1	Total/NA	Solid	5035	
880-12315-20	S-10,0.5	Total/NA	Solid	5035	
MB 880-21935/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-21935/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21935/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12315-11 MS	S-5,3	Total/NA	Solid	5035	
880-12315-11 MSD	S-5,3	Total/NA	Solid	5035	

Analysis Batch: 21936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-11	S-5,3	Total/NA	Solid	8021B	21935

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

GC VOA (Continued)

Analysis Batch: 21936 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-12	S-5,5	Total/NA	Solid	8021B	21935
880-12315-13	S-5,10	Total/NA	Solid	8021B	21935
880-12315-14	S-8,1	Total/NA	Solid	8021B	21935
880-12315-15	S-8,3	Total/NA	Solid	8021B	21935
880-12315-16	S-8,5	Total/NA	Solid	8021B	21935
880-12315-17	S-8,10	Total/NA	Solid	8021B	21935
880-12315-18	S-9,0.5	Total/NA	Solid	8021B	21935
880-12315-19	S-9,1	Total/NA	Solid	8021B	21935
880-12315-20	S-10,0.5	Total/NA	Solid	8021B	21935
MB 880-21935/5-A	Method Blank	Total/NA	Solid	8021B	21935
LCS 880-21935/1-A	Lab Control Sample	Total/NA	Solid	8021B	21935
LCSD 880-21935/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21935
880-12315-11 MS	S-5,3	Total/NA	Solid	8021B	21935
880-12315-11 MSD	S-5,3	Total/NA	Solid	8021B	21935

GC Semi VOA

Analysis Batch: 21357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-21	S-10,1	Total/NA	Solid	8015B NM	21371
MB 880-21371/1-A	Method Blank	Total/NA	Solid	8015B NM	21371
LCS 880-21371/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	21371
LCSD 880-21371/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	21371
880-12309-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	21371
880-12309-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	21371

Prep Batch: 21371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-21	S-10,1	Total/NA	Solid	8015NM Prep	
MB 880-21371/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-21371/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-21371/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12309-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-12309-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-1	S-2,1	Total/NA	Solid	8015B NM	21468
880-12315-2	S-2,3	Total/NA	Solid	8015B NM	21468
880-12315-3	S-2,5	Total/NA	Solid	8015B NM	21468
880-12315-4	S-2,10	Total/NA	Solid	8015B NM	21468
880-12315-5	S-3.1	Total/NA	Solid	8015B NM	21468
880-12315-6	S-3,3	Total/NA	Solid	8015B NM	21468
880-12315-7	S-3,5	Total/NA	Solid	8015B NM	21468
880-12315-8	S-3,10	Total/NA	Solid	8015B NM	21468
880-12315-9	S-3,14	Total/NA	Solid	8015B NM	21468
880-12315-10	S-5,1	Total/NA	Solid	8015B NM	21468
880-12315-11	S-5,3	Total/NA	Solid	8015B NM	21468
880-12315-12	S-5,5	Total/NA	Solid	8015B NM	21468
880-12315-13	S-5,10	Total/NA	Solid	8015B NM	21468
880-12315-14	S-8,1	Total/NA	Solid	8015B NM	21468

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

GC Semi VOA (Continued)

Analysis Batch: 21456 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-15	S-8,3	Total/NA	Solid	8015B NM	21468
880-12315-16	S-8,5	Total/NA	Solid	8015B NM	21468
880-12315-17	S-8,10	Total/NA	Solid	8015B NM	21468
880-12315-18	S-9,0.5	Total/NA	Solid	8015B NM	21468
880-12315-19	S-9,1	Total/NA	Solid	8015B NM	21468
880-12315-20	S-10,0.5	Total/NA	Solid	8015B NM	21468
MB 880-21468/1-A	Method Blank	Total/NA	Solid	8015B NM	21468
LCS 880-21468/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	21468
LCSD 880-21468/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	21468
880-12315-1 MS	S-2,1	Total/NA	Solid	8015B NM	21468
880-12315-1 MSD	S-2,1	Total/NA	Solid	8015B NM	21468

Prep Batch: 21468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-1	S-2,1	Total/NA	Solid	8015NM Prep	
880-12315-2	S-2,3	Total/NA	Solid	8015NM Prep	
880-12315-3	S-2,5	Total/NA	Solid	8015NM Prep	
880-12315-4	S-2,10	Total/NA	Solid	8015NM Prep	
880-12315-5	S-3.1	Total/NA	Solid	8015NM Prep	
880-12315-6	S-3,3	Total/NA	Solid	8015NM Prep	
880-12315-7	S-3,5	Total/NA	Solid	8015NM Prep	
880-12315-8	S-3,10	Total/NA	Solid	8015NM Prep	
880-12315-9	S-3,14	Total/NA	Solid	8015NM Prep	
880-12315-10	S-5,1	Total/NA	Solid	8015NM Prep	
880-12315-11	S-5,3	Total/NA	Solid	8015NM Prep	
880-12315-12	S-5,5	Total/NA	Solid	8015NM Prep	
880-12315-13	S-5,10	Total/NA	Solid	8015NM Prep	
880-12315-14	S-8,1	Total/NA	Solid	8015NM Prep	
880-12315-15	S-8,3	Total/NA	Solid	8015NM Prep	
880-12315-16	S-8,5	Total/NA	Solid	8015NM Prep	
880-12315-17	S-8,10	Total/NA	Solid	8015NM Prep	
880-12315-18	S-9,0.5	Total/NA	Solid	8015NM Prep	
880-12315-19	S-9,1	Total/NA	Solid	8015NM Prep	
880-12315-20	S-10,0.5	Total/NA	Solid	8015NM Prep	
MB 880-21468/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-21468/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-21468/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12315-1 MS	S-2,1	Total/NA	Solid	8015NM Prep	
880-12315-1 MSD	S-2,1	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-1	S-2,1	Total/NA	Solid	8015 NM	
880-12315-2	S-2,3	Total/NA	Solid	8015 NM	
880-12315-3	S-2,5	Total/NA	Solid	8015 NM	
880-12315-4	S-2,10	Total/NA	Solid	8015 NM	
880-12315-5	S-3.1	Total/NA	Solid	8015 NM	
880-12315-6	S-3,3	Total/NA	Solid	8015 NM	
880-12315-7	S-3,5	Total/NA	Solid	8015 NM	
880-12315-8	S-3,10	Total/NA	Solid	8015 NM	
880-12315-9	S-3,14	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

GC Semi VOA (Continued)

Analysis Batch: 21472 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-10	S-5,1	Total/NA	Solid	8015 NM	
880-12315-11	S-5,3	Total/NA	Solid	8015 NM	
880-12315-12	S-5,5	Total/NA	Solid	8015 NM	
880-12315-13	S-5,10	Total/NA	Solid	8015 NM	
880-12315-14	S-8,1	Total/NA	Solid	8015 NM	
880-12315-15	S-8,3	Total/NA	Solid	8015 NM	
880-12315-16	S-8,5	Total/NA	Solid	8015 NM	
880-12315-17	S-8,10	Total/NA	Solid	8015 NM	
880-12315-18	S-9,0.5	Total/NA	Solid	8015 NM	
880-12315-19	S-9,1	Total/NA	Solid	8015 NM	
880-12315-20	S-10,0.5	Total/NA	Solid	8015 NM	
880-12315-21	S-10,1	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 21602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-1	S-2,1	Soluble	Solid	DI Leach	
880-12315-2	S-2,3	Soluble	Solid	DI Leach	
880-12315-3	S-2,5	Soluble	Solid	DI Leach	
880-12315-4	S-2,10	Soluble	Solid	DI Leach	
880-12315-5	S-3.1	Soluble	Solid	DI Leach	
880-12315-6	S-3,3	Soluble	Solid	DI Leach	
880-12315-7	S-3,5	Soluble	Solid	DI Leach	
880-12315-8	S-3,10	Soluble	Solid	DI Leach	
880-12315-9	S-3,14	Soluble	Solid	DI Leach	
880-12315-10	S-5,1	Soluble	Solid	DI Leach	
880-12315-11	S-5,3	Soluble	Solid	DI Leach	
880-12315-12	S-5,5	Soluble	Solid	DI Leach	
880-12315-13	S-5,10	Soluble	Solid	DI Leach	
880-12315-14	S-8,1	Soluble	Solid	DI Leach	
880-12315-15	S-8,3	Soluble	Solid	DI Leach	
880-12315-16	S-8,5	Soluble	Solid	DI Leach	
880-12315-17	S-8,10	Soluble	Solid	DI Leach	
880-12315-18	S-9,0.5	Soluble	Solid	DI Leach	
MB 880-21602/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21602/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21602/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-12315-9 MS	S-3,14	Soluble	Solid	DI Leach	
880-12315-9 MSD	S-3,14	Soluble	Solid	DI Leach	

Analysis Batch: 22052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-1	S-2,1	Soluble	Solid	300.0	21602
880-12315-2	S-2,3	Soluble	Solid	300.0	21602
880-12315-3	S-2,5	Soluble	Solid	300.0	21602
880-12315-4	S-2,10	Soluble	Solid	300.0	21602
880-12315-5	S-3.1	Soluble	Solid	300.0	21602
880-12315-6	S-3,3	Soluble	Solid	300.0	21602
880-12315-7	S-3,5	Soluble	Solid	300.0	21602
880-12315-8	S-3,10	Soluble	Solid	300.0	21602

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

HPLC/IC (Continued)

Analysis Batch: 22052 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-9	S-3,14	Soluble	Solid	300.0	21602
880-12315-10	S-5,1	Soluble	Solid	300.0	21602
880-12315-11	S-5,3	Soluble	Solid	300.0	21602
880-12315-12	S-5,5	Soluble	Solid	300.0	21602
880-12315-13	S-5,10	Soluble	Solid	300.0	21602
880-12315-14	S-8,1	Soluble	Solid	300.0	21602
880-12315-15	S-8,3	Soluble	Solid	300.0	21602
880-12315-16	S-8,5	Soluble	Solid	300.0	21602
880-12315-17	S-8,10	Soluble	Solid	300.0	21602
880-12315-18	S-9,0.5	Soluble	Solid	300.0	21602
MB 880-21602/1-A	Method Blank	Soluble	Solid	300.0	21602
LCS 880-21602/2-A	Lab Control Sample	Soluble	Solid	300.0	21602
LCSD 880-21602/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21602
880-12315-9 MS	S-3,14	Soluble	Solid	300.0	21602
880-12315-9 MSD	S-3,14	Soluble	Solid	300.0	21602

Leach Batch: 22210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-19	S-9,1	Soluble	Solid	DI Leach	
880-12315-20	S-10,0.5	Soluble	Solid	DI Leach	
880-12315-21	S-10,1	Soluble	Solid	DI Leach	
MB 880-22210/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22210/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22210/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-12712-A-1-F MS	Matrix Spike	Soluble	Solid	DI Leach	
880-12712-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-2112-A-3-H MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2112-A-3-I MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 22211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12315-19	S-9,1	Soluble	Solid	300.0	22210
880-12315-20	S-10,0.5	Soluble	Solid	300.0	22210
880-12315-21	S-10,1	Soluble	Solid	300.0	22210
MB 880-22210/1-A	Method Blank	Soluble	Solid	300.0	22210
LCS 880-22210/2-A	Lab Control Sample	Soluble	Solid	300.0	22210
LCSD 880-22210/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22210
880-12712-A-1-F MS	Matrix Spike	Soluble	Solid	300.0	22210
880-12712-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	22210
890-2112-A-3-H MS	Matrix Spike	Soluble	Solid	300.0	22210
890-2112-A-3-I MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	22210

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-2,1
Date Collected: 03/08/22 12:30
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-1
Matrix: Solid

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	21700	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 22:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/14/22 21:56	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		10			22052	03/24/22 02:49	SC	XEN MID

Client Sample ID: S-2,3
Date Collected: 03/08/22 12:31
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	21700	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 22:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/14/22 23:00	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		5			22052	03/24/22 02:58	SC	XEN MID

Client Sample ID: S-2,5
Date Collected: 03/08/22 12:32
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-3
Matrix: Solid

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	21700	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 22:57	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/14/22 23:22	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		5			22052	03/24/22 03:07	SC	XEN MID

Client Sample ID: S-2,10
Date Collected: 03/08/22 12:33
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-4
Matrix: Solid

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	21700	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 23:17	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-2,10
Date Collected: 03/08/22 12:33
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-4
Matrix: Solid

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			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/14/22 23:44	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		1			22052	03/24/22 03:34	SC	XEN MID

Client Sample ID: S-3.1
Date Collected: 03/08/22 11:05
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-5
Matrix: Solid

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	21700	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 23:38	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 00:03	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		10			22052	03/24/22 03:42	SC	XEN MID

Client Sample ID: S-3,3
Date Collected: 03/08/22 11:06
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-6
Matrix: Solid

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	21700	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 23:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 00:23	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		50			22052	03/24/22 03:51	SC	XEN MID

Client Sample ID: S-3,5
Date Collected: 03/08/22 11:07
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-7
Matrix: Solid

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	21700	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/19/22 00:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 00:43	AJ	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-3,5
Date Collected: 03/08/22 11:07
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		10			22052	03/24/22 04:00	SC	XEN MID

Client Sample ID: S-3,10
Date Collected: 03/08/22 11:08
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-8
Matrix: Solid

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	21700	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/19/22 00:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 01:04	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		5			22052	03/24/22 04:09	SC	XEN MID

Client Sample ID: S-3,14
Date Collected: 03/08/22 11:09
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-9
Matrix: Solid

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	21700	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/19/22 01:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 01:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		1			22052	03/24/22 04:18	SC	XEN MID

Client Sample ID: S-5,1
Date Collected: 03/08/22 13:00
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-10
Matrix: Solid

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	21700	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/19/22 01:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 01:44	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		1			22052	03/24/22 15:50	SC	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-5,3

Date Collected: 03/08/22 13:01
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-11
Matrix: Solid

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	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 12:57	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 02:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		1			22052	03/24/22 04:53	SC	XEN MID

Client Sample ID: S-5,5

Date Collected: 03/08/22 13:02
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 13:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 02:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		1			22052	03/24/22 05:20	SC	XEN MID

Client Sample ID: S-5,10

Date Collected: 03/08/22 13:03
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-13
Matrix: Solid

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	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 13:38	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 03:04	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		1			22052	03/24/22 05:29	SC	XEN MID

Client Sample ID: S-8,1

Date Collected: 03/08/22 13:45
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-14
Matrix: Solid

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	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 13:59	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-8,1
Date Collected: 03/08/22 13:45
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-14
Matrix: Solid

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			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 03:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		5			22052	03/24/22 05:37	SC	XEN MID

Client Sample ID: S-8,3
Date Collected: 03/08/22 13:46
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-15
Matrix: Solid

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	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 14:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 03:44	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		1			22052	03/24/22 05:46	SC	XEN MID

Client Sample ID: S-8,5
Date Collected: 03/08/22 13:47
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-16
Matrix: Solid

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	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 14:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 04:05	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		1			22052	03/24/22 05:55	SC	XEN MID

Client Sample ID: S-8,10
Date Collected: 03/08/22 13:48
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-17
Matrix: Solid

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	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 15:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 04:24	AJ	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-8,10
Date Collected: 03/08/22 13:48
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		1			22052	03/24/22 06:04	SC	XEN MID

Client Sample ID: S-9,0.5
Date Collected: 03/08/22 10:15
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-18
Matrix: Solid

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	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 15:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 04:44	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21602	03/15/22 08:33	CH	XEN MID
Soluble	Analysis	300.0		5			22052	03/24/22 15:59	SC	XEN MID

Client Sample ID: S-9,1
Date Collected: 03/08/22 10:16
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-19
Matrix: Solid

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	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 15:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 05:04	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	22210	03/23/22 13:49	SC	XEN MID
Soluble	Analysis	300.0		5			22211	03/23/22 15:32	SC	XEN MID

Client Sample ID: S-10,0.5
Date Collected: 03/08/22 10:40
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-20
Matrix: Solid

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	21935	03/19/22 09:25	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21936	03/19/22 16:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21468	03/14/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21456	03/15/22 05:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	22210	03/23/22 13:49	SC	XEN MID
Soluble	Analysis	300.0		1			22211	03/23/22 15:59	SC	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Client Sample ID: S-10,1
Date Collected: 03/08/22 10:41
Date Received: 03/10/22 15:05

Lab Sample ID: 880-12315-21
Matrix: Solid

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	21697	03/17/22 08:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21774	03/17/22 18:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			21900	03/18/22 13:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21472	03/14/22 08:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21371	03/11/22 09:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21357	03/12/22 08:23	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	22210	03/23/22 13:49	SC	XEN MID
Soluble	Analysis	300.0		1			22211	03/23/22 16:07	SC	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-12315-1
Project/Site: SD 19 CTB Manifold SDG: 22-0105-04

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	T104704400-21-22	06-30-22

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

Method Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

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
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: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-12315-1
SDG: 22-0105-04

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-12315-1	S-2,1	Solid	03/08/22 12:30	03/10/22 15:05
880-12315-2	S-2,3	Solid	03/08/22 12:31	03/10/22 15:05
880-12315-3	S-2,5	Solid	03/08/22 12:32	03/10/22 15:05
880-12315-4	S-2,10	Solid	03/08/22 12:33	03/10/22 15:05
880-12315-5	S-3.1	Solid	03/08/22 11:05	03/10/22 15:05
880-12315-6	S-3,3	Solid	03/08/22 11:06	03/10/22 15:05
880-12315-7	S-3,5	Solid	03/08/22 11:07	03/10/22 15:05
880-12315-8	S-3,10	Solid	03/08/22 11:08	03/10/22 15:05
880-12315-9	S-3,14	Solid	03/08/22 11:09	03/10/22 15:05
880-12315-10	S-5,1	Solid	03/08/22 13:00	03/10/22 15:05
880-12315-11	S-5,3	Solid	03/08/22 13:01	03/10/22 15:05
880-12315-12	S-5,5	Solid	03/08/22 13:02	03/10/22 15:05
880-12315-13	S-5,10	Solid	03/08/22 13:03	03/10/22 15:05
880-12315-14	S-8,1	Solid	03/08/22 13:45	03/10/22 15:05
880-12315-15	S-8,3	Solid	03/08/22 13:46	03/10/22 15:05
880-12315-16	S-8,5	Solid	03/08/22 13:47	03/10/22 15:05
880-12315-17	S-8,10	Solid	03/08/22 13:48	03/10/22 15:05
880-12315-18	S-9,0.5	Solid	03/08/22 10:15	03/10/22 15:05
880-12315-19	S-9,1	Solid	03/08/22 10:16	03/10/22 15:05
880-12315-20	S-10,0.5	Solid	03/08/22 10:40	03/10/22 15:05
880-12315-21	S-10,1	Solid	03/08/22 10:41	03/10/22 15:05

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No. 12315

CHAIN-OF-CUSTODY

3/25/2022

Larson & Associates, Inc.
Environmental Consultants
507 N Marienfeld, Ste 202
Midland, TX 79701
432-687-0901

DATE: 3/10/2022 PAGE 1 OF 2

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME SD 19 CTB Manifold

LAI PROJECT #: 22-0105-04 COLLECTOR: TP & OR

Data Reported to

TRRP report? ☐ Yes ☒ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

TIME ZONE
Time zone/State: MST/NM

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX 8021 ☐ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015	DIESEL - MOD 8015	OIL - MOD 8015	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D W 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ANIONS ☐ ALKALINITY ☐	FIELD NOTES
S-2, 1		3/8/22	1230	S	1				X		X		X	X	X												X			
S-2, 3			1231																											
S-2, 5			1232																											
S-2, 10			1233																											
~~S-2, 15~~			~~1234~~																											
S-3, 1			1105																											
S-3, 3			1106																											
S-3, 5			1107																											
S-3, 10			1108																											
S-3, 14			1109																											
S-5, 1			1300																											
S-5, 3			1301																											
S-5, 5			1302																											
S-5, 10			1303																											
S-8, 1			1345																											

TOTAL

880-12315 Chain of Custody

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
	3/10/22 1505	
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)

LABORATORY Xenco

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP 2.1 THERM# IR9
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

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Received by OCD: 8/23/2023 10:56:44 AM

Released to Imaging: 12/5/2023 3:14:43 PM

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No. 2460

12315 CHAIN-OF-CUSTODY

3/25/2022

Larson & Associates, Inc.
Environmental Consultants
507 N Marienfeld, Ste 202
Midland, TX 79701
432-687-0901

Data Reported to

DATE 3/10/2022 PAGE 2 OF 2

PO#: LAB WORK ORDER#

PROJECT LOCATION OR NAME SD 19 CTB Manifold

LAI PROJECT # 22-0105-04 COLLECTOR: TP & JR

TRRP report? ☐ Yes ☒ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

TIME ZONE
Time zone/State: MST/NM

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX 4 ☐ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 4	DIESEL - MOD 8015 4	OIL - MOD 8015 4	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D W 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDES 4 ☐ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
S-8, 3		3/8/22	1346	S	1				X		X		X	X	X												X		
S-8, 5			1347																										
S-8, 10			1348																										
S-9, 0.5			1015																										
S-9, 1			1016																										
S-10, 0.5			1040																										
S-10, 1			1041																										
TOTAL																													

RELINQUISHED BY (Signature) DATE/TIME 3/8/2022 1505 RECEIVED BY (Signature)

RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (Signature)

RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (Signature)

LABORATORY Xenco

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP 2.1 THERM# IR8
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

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Received by OCD: 8/23/2023 10:56:44 AM

Released to Imaging: 12/5/2023 3:14:43 PM

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-12315-1
SDG Number: 22-0105-04

Login Number: 12315
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	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-14735-1
Laboratory Sample Delivery Group: 22-0105-04
Client Project/Site: SD 19 CTB Manifold

For:
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
5/20/2022 4:57:58 PM

Holly Taylor, Project Manager
(806)794-1296
Holly.Taylor@et.eurofinsus.com

LINKS

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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.

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Laboratory Job ID: 880-14735-1
SDG: 22-0105-04

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-14735-1
Project/Site: SD 19 CTB Manifold SDG: 22-0105-04

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery 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: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-14735-1
SDG: 22-0105-04

Job ID: 880-14735-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-14735-1

Receipt
The samples were received on 5/12/2022 8:46 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 0.1°C

GC VOA
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: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-25531 and analytical batch 880-25492 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-25452 and analytical batch 880-25494 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-14735-1
SDG: 22-0105-04

Client Sample ID: S-3 15'

Lab Sample ID: 880-14735-1
Matrix: Solid
Date Collected: 05/10/22 14:56
Date Received: 05/12/22 08:46

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/16/22 13:30	05/17/22 19:37	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/16/22 13:30	05/17/22 19:37	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/16/22 13:30	05/17/22 19:37	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		05/16/22 13:30	05/17/22 19:37	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/16/22 13:30	05/17/22 19:37	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/16/22 13:30	05/17/22 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*05/16/22 13:30*	*05/17/22 19:37*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*05/16/22 13:30*	*05/17/22 19:37*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			05/18/22 09:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			05/16/22 12:00	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/12/22 15:30	05/13/22 20:29	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/12/22 15:30	05/13/22 20:29	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/12/22 15:30	05/13/22 20:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*90*		*70 - 130*	*05/12/22 15:30*	*05/13/22 20:29*	*1*
o-Terphenyl (Surr)	*91*		*70 - 130*	*05/12/22 15:30*	*05/13/22 20:29*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**233**		5.01		mg/Kg			05/16/22 18:25	1

Client Sample ID: S-3 20'

Lab Sample ID: 880-14735-2
Matrix: Solid
Date Collected: 05/10/22 15:00
Date Received: 05/12/22 08:46

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/16/22 13:30	05/17/22 19:58	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/16/22 13:30	05/17/22 19:58	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/16/22 13:30	05/17/22 19:58	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		05/16/22 13:30	05/17/22 19:58	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/16/22 13:30	05/17/22 19:58	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/16/22 13:30	05/17/22 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*05/16/22 13:30*	*05/17/22 19:58*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*05/16/22 13:30*	*05/17/22 19:58*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-14735-1
SDG: 22-0105-04

Client Sample ID: S-3 20'

Date Collected: 05/10/22 15:00
Date Received: 05/12/22 08:46

Lab Sample ID: 880-14735-2

Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/18/22 09:03	1

Method: 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			05/16/22 12:00	1

Method: 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		05/12/22 15:30	05/13/22 20:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/12/22 15:30	05/13/22 20:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/12/22 15:30	05/13/22 20:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*84*		*70 - 130*	*05/12/22 15:30*	*05/13/22 20:51*	*1*
o-Terphenyl (Surr)	*83*		*70 - 130*	*05/12/22 15:30*	*05/13/22 20:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**72.0**		4.95		mg/Kg			05/16/22 18:32	1

Client Sample ID: S-3 25'

Date Collected: 05/10/22 15:05
Date Received: 05/12/22 08:46

Lab Sample ID: 880-14735-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/16/22 13:30	05/17/22 20:19	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/16/22 13:30	05/17/22 20:19	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/16/22 13:30	05/17/22 20:19	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		05/16/22 13:30	05/17/22 20:19	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/16/22 13:30	05/17/22 20:19	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/16/22 13:30	05/17/22 20:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*05/16/22 13:30*	*05/17/22 20:19*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*05/16/22 13:30*	*05/17/22 20:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			05/18/22 09:03	1

Method: 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			05/16/22 12:00	1

Method: 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 *1	50.0		mg/Kg		05/13/22 11:17	05/13/22 22:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/13/22 11:17	05/13/22 22:39	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-14735-1
SDG: 22-0105-04

Client Sample ID: S-3 25'
Date Collected: 05/10/22 15:05
Date Received: 05/12/22 08:46

Lab Sample ID: 880-14735-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/13/22 11:17	05/13/22 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*102*		*70 - 130*	*05/13/22 11:17*	*05/13/22 22:39*	*1*
o-Terphenyl (Surr)	*107*		*70 - 130*	*05/13/22 11:17*	*05/13/22 22:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**78.0**		4.99		mg/Kg			05/16/22 18:38	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-14735-1
SDG: 22-0105-04

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-14735-1	S-3 15'	107	104
880-14735-2	S-3 20'	104	103
880-14735-3	S-3 25'	102	103
890-2301-A-1-D MS	Matrix Spike	104	104
890-2301-A-1-E MSD	Matrix Spike Duplicate	103	102
LCS 880-25636/1-A	Lab Control Sample	98	96
LCSD 880-25636/2-A	Lab Control Sample Dup	102	102
MB 880-25636/5-A	Method Blank	97	98

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**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-14735-1	S-3 15'	90	91
880-14735-2	S-3 20'	84	83
880-14735-3	S-3 25'	102	107
880-14735-3 MS	S-3 25'	86	83
880-14735-3 MSD	S-3 25'	83	80
880-14745-A-22-B MS	Matrix Spike	95	82
880-14745-A-22-C MSD	Matrix Spike Duplicate	84	72
LCS 880-25452/2-A	Lab Control Sample	114	109
LCS 880-25531/2-A	Lab Control Sample	108	108
LCSD 880-25452/3-A	Lab Control Sample Dup	106	101
LCSD 880-25531/3-A	Lab Control Sample Dup	105	108
MB 880-25452/1-A	Method Blank	99	106
MB 880-25531/1-A	Method Blank	102	108

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-14735-1
SDG: 22-0105-04

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-25636/5-A
Matrix: Solid
Analysis Batch: 25672

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25636

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/22 13:30	05/17/22 11:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/22 13:30	05/17/22 11:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/22 13:30	05/17/22 11:48	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		05/16/22 13:30	05/17/22 11:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/16/22 13:30	05/17/22 11:48	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/16/22 13:30	05/17/22 11:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*05/16/22 13:30*	*05/17/22 11:48*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*05/16/22 13:30*	*05/17/22 11:48*	*1*

Lab Sample ID: LCS 880-25636/1-A
Matrix: Solid
Analysis Batch: 25672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25636

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09524		mg/Kg		95	70 - 130		
Toluene			0.100	0.09684		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.1120		mg/Kg		112	70 - 130		
m,p-Xylenes			0.200	0.2019		mg/Kg		101	70 - 130		
o-Xylene			0.100	0.09544		mg/Kg		95	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 880-25636/2-A
Matrix: Solid
Analysis Batch: 25672

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25636

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1015		mg/Kg		101	70 - 130	6	35
Toluene			0.100	0.09620		mg/Kg		96	70 - 130	1	35
Ethylbenzene			0.100	0.1102		mg/Kg		110	70 - 130	2	35
m,p-Xylenes			0.200	0.1975		mg/Kg		99	70 - 130	2	35
o-Xylene			0.100	0.09391		mg/Kg		94	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-2301-A-1-D MS
Matrix: Solid
Analysis Batch: 25672

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 25636

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.0996	0.09146		mg/Kg		92	70 - 130		
Toluene	<0.00199	U	0.0996	0.08637		mg/Kg		86	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-14735-1
Project/Site: SD 19 CTB Manifold SDG: 22-0105-04

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

Lab Sample ID: 890-2301-A-1-D MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 25672 **Prep Batch: 25636**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0996	0.09756		mg/Kg		98	70 - 130
m,p-Xylenes	<0.00398	U	0.199	0.1748		mg/Kg		88	70 - 130
o-Xylene	<0.00199	U	0.0996	0.08344		mg/Kg		83	70 - 130

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

Lab Sample ID: 890-2301-A-1-E MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 25672 **Prep Batch: 25636**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0998	0.08543		mg/Kg		86	70 - 130	7	35
Toluene	<0.00199	U	0.0998	0.08179		mg/Kg		81	70 - 130	5	35
Ethylbenzene	<0.00199	U	0.0998	0.09262		mg/Kg		93	70 - 130	5	35
m,p-Xylenes	<0.00398	U	0.200	0.1656		mg/Kg		83	70 - 130	5	35
o-Xylene	<0.00199	U	0.0998	0.07884		mg/Kg		79	70 - 130	6	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

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

Lab Sample ID: MB 880-25452/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 25494 **Prep Batch: 25452**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/12/22 15:30	05/13/22 10:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/12/22 15:30	05/13/22 10:39	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/12/22 15:30	05/13/22 10:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*99*		*70 - 130*	*05/12/22 15:30*	*05/13/22 10:39*	*1*
o-Terphenyl (Surr)	*106*		*70 - 130*	*05/12/22 15:30*	*05/13/22 10:39*	*1*

Lab Sample ID: LCS 880-25452/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 25494 **Prep Batch: 25452**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1110		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1100		mg/Kg		110	70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-14735-1
SDG: 22-0105-04

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

Lab Sample ID: LCS 880-25452/2-A
Matrix: Solid
Analysis Batch: 25494

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25452

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	114		70 - 130
o-Terphenyl (Surr)	109		70 - 130

Lab Sample ID: LCSD 880-25452/3-A
Matrix: Solid
Analysis Batch: 25494

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25452

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1129		mg/Kg		113	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	1011		mg/Kg		101	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	106		70 - 130
o-Terphenyl (Surr)	101		70 - 130

Lab Sample ID: 880-14745-A-22-B MS
Matrix: Solid
Analysis Batch: 25494

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 25452

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	1000	904.0		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	200	F1	1000	977.4		mg/Kg		78	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	95		70 - 130
o-Terphenyl (Surr)	82		70 - 130

Lab Sample ID: 880-14745-A-22-C MSD
Matrix: Solid
Analysis Batch: 25494

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 25452

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	998	806.2		mg/Kg		78	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	200	F1	998	863.2	F1	mg/Kg		66	70 - 130	12	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane (Surr)	84		70 - 130
o-Terphenyl (Surr)	72		70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-14735-1
SDG: 22-0105-04

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

Lab Sample ID: MB 880-25531/1-A
Matrix: Solid
Analysis Batch: 25492

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25531

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/13/22 11:17	05/13/22 21:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/13/22 11:17	05/13/22 21:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/13/22 11:17	05/13/22 21:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*102*		*70 - 130*	*05/13/22 11:17*	*05/13/22 21:34*	*1*
o-Terphenyl (Surr)	*108*		*70 - 130*	*05/13/22 11:17*	*05/13/22 21:34*	*1*

Lab Sample ID: LCS 880-25531/2-A
Matrix: Solid
Analysis Batch: 25492

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25531

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	883.9		mg/Kg		88	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1071		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*108*		*70 - 130*
o-Terphenyl (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 880-25531/3-A
Matrix: Solid
Analysis Batch: 25492

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25531

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1141	*1	mg/Kg		114	70 - 130	25	20
Diesel Range Organics (Over C10-C28)			1000	1077		mg/Kg		108	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*105*		*70 - 130*
o-Terphenyl (Surr)	*108*		*70 - 130*

Lab Sample ID: 880-14735-3 MS
Matrix: Solid
Analysis Batch: 25492

Client Sample ID: S-3 25'
Prep Type: Total/NA
Prep Batch: 25531

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	1000	817.2		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	945.2		mg/Kg		95	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-14735-1
SDG: 22-0105-04

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

Lab Sample ID: 880-14735-3 MS
Matrix: Solid
Analysis Batch: 25492

Client Sample ID: S-3 25'
Prep Type: Total/NA
Prep Batch: 25531

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	86		70 - 130
o-Terphenyl (Surr)	83		70 - 130

Lab Sample ID: 880-14735-3 MSD
Matrix: Solid
Analysis Batch: 25492

Client Sample ID: S-3 25'
Prep Type: Total/NA
Prep Batch: 25531

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	<50.0	U *1	998	812.7		mg/Kg		80	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	917.5		mg/Kg		92	70 - 130	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane (Surr)	83		70 - 130
o-Terphenyl (Surr)	80		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-25455/1-A
Matrix: Solid
Analysis Batch: 25619

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			05/16/22 16:50	1

Lab Sample ID: LCS 880-25455/2-A
Matrix: Solid
Analysis Batch: 25619

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	255.9		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-25455/3-A
Matrix: Solid
Analysis Batch: 25619

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	271.5		mg/Kg		109	90 - 110	6	20

Lab Sample ID: 880-14735-3 MS
Matrix: Solid
Analysis Batch: 25619

Client Sample ID: S-3 25'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	78.0		250	347.8		mg/Kg		108	90 - 110		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-14735-1
SDG: 22-0105-04

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-14735-3 MSD
Matrix: Solid
Analysis Batch: 25619

Client Sample ID: S-3 25'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	78.0		250	340.6		mg/Kg		105	90 - 110	2	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-14735-1
SDG: 22-0105-04

GC VOA

Prep Batch: 25636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-14735-1	S-3 15'	Total/NA	Solid	5035	
880-14735-2	S-3 20'	Total/NA	Solid	5035	
880-14735-3	S-3 25'	Total/NA	Solid	5035	
MB 880-25636/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-25636/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-25636/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2301-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-2301-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 25672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-14735-1	S-3 15'	Total/NA	Solid	8021B	25636
880-14735-2	S-3 20'	Total/NA	Solid	8021B	25636
880-14735-3	S-3 25'	Total/NA	Solid	8021B	25636
MB 880-25636/5-A	Method Blank	Total/NA	Solid	8021B	25636
LCS 880-25636/1-A	Lab Control Sample	Total/NA	Solid	8021B	25636
LCSD 880-25636/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	25636
890-2301-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	25636
890-2301-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	25636

Analysis Batch: 25795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-14735-1	S-3 15'	Total/NA	Solid	Total BTEX	
880-14735-2	S-3 20'	Total/NA	Solid	Total BTEX	
880-14735-3	S-3 25'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 25452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-14735-1	S-3 15'	Total/NA	Solid	8015NM Prep	
880-14735-2	S-3 20'	Total/NA	Solid	8015NM Prep	
MB 880-25452/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-25452/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-25452/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-14745-A-22-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-14745-A-22-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 25492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-14735-3	S-3 25'	Total/NA	Solid	8015B NM	25531
MB 880-25531/1-A	Method Blank	Total/NA	Solid	8015B NM	25531
LCS 880-25531/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	25531
LCSD 880-25531/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	25531
880-14735-3 MS	S-3 25'	Total/NA	Solid	8015B NM	25531
880-14735-3 MSD	S-3 25'	Total/NA	Solid	8015B NM	25531

Analysis Batch: 25494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-14735-1	S-3 15'	Total/NA	Solid	8015B NM	25452
880-14735-2	S-3 20'	Total/NA	Solid	8015B NM	25452

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-14735-1
SDG: 22-0105-04

GC Semi VOA (Continued)

Analysis Batch: 25494 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-25452/1-A	Method Blank	Total/NA	Solid	8015B NM	25452
LCS 880-25452/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	25452
LCSD 880-25452/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	25452
880-14745-A-22-B MS	Matrix Spike	Total/NA	Solid	8015B NM	25452
880-14745-A-22-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	25452

Prep Batch: 25531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-14735-3	S-3 25'	Total/NA	Solid	8015NM Prep	
MB 880-25531/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-25531/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-25531/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-14735-3 MS	S-3 25'	Total/NA	Solid	8015NM Prep	
880-14735-3 MSD	S-3 25'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 25627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-14735-1	S-3 15'	Total/NA	Solid	8015 NM	
880-14735-2	S-3 20'	Total/NA	Solid	8015 NM	
880-14735-3	S-3 25'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 25455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-14735-1	S-3 15'	Soluble	Solid	DI Leach	
880-14735-2	S-3 20'	Soluble	Solid	DI Leach	
880-14735-3	S-3 25'	Soluble	Solid	DI Leach	
MB 880-25455/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-25455/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-25455/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-14735-3 MS	S-3 25'	Soluble	Solid	DI Leach	
880-14735-3 MSD	S-3 25'	Soluble	Solid	DI Leach	

Analysis Batch: 25619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-14735-1	S-3 15'	Soluble	Solid	300.0	25455
880-14735-2	S-3 20'	Soluble	Solid	300.0	25455
880-14735-3	S-3 25'	Soluble	Solid	300.0	25455
MB 880-25455/1-A	Method Blank	Soluble	Solid	300.0	25455
LCS 880-25455/2-A	Lab Control Sample	Soluble	Solid	300.0	25455
LCSD 880-25455/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	25455
880-14735-3 MS	S-3 25'	Soluble	Solid	300.0	25455
880-14735-3 MSD	S-3 25'	Soluble	Solid	300.0	25455

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-14735-1
SDG: 22-0105-04

Client Sample ID: S-3 15'

Date Collected: 05/10/22 14:56
Date Received: 05/12/22 08:46

Lab Sample ID: 880-14735-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	25636	05/16/22 13:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25672	05/17/22 19:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25795	05/18/22 09:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			25627	05/16/22 12:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	25452	05/12/22 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25494	05/13/22 20:29	SM	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	25455	05/12/22 15:38	CH	XEN MID
Soluble	Analysis	300.0		1			25619	05/16/22 18:25	CH	XEN MID

Client Sample ID: S-3 20'

Date Collected: 05/10/22 15:00
Date Received: 05/12/22 08:46

Lab Sample ID: 880-14735-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	25636	05/16/22 13:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25672	05/17/22 19:58	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25795	05/18/22 09:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			25627	05/16/22 12:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	25452	05/12/22 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25494	05/13/22 20:51	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	25455	05/12/22 15:38	CH	XEN MID
Soluble	Analysis	300.0		1			25619	05/16/22 18:32	CH	XEN MID

Client Sample ID: S-3 25'

Date Collected: 05/10/22 15:05
Date Received: 05/12/22 08:46

Lab Sample ID: 880-14735-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	25636	05/16/22 13:30	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25672	05/17/22 20:19	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25795	05/18/22 09:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			25627	05/16/22 12:00	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25531	05/13/22 11:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25492	05/13/22 22:39	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	25455	05/12/22 15:38	CH	XEN MID
Soluble	Analysis	300.0		1			25619	05/16/22 18:38	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-14735-1
Project/Site: SD 19 CTB Manifold SDG: 22-0105-04

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	T104704400-21-22	06-30-22

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

Method Summary

Client: Larson & Associates, Inc. Job ID: 880-14735-1
Project/Site: SD 19 CTB Manifold SDG: 22-0105-04

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
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: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-14735-1
SDG: 22-0105-04

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-14735-1	S-3 15'	Solid	05/10/22 14:56	05/12/22 08:46
880-14735-2	S-3 20'	Solid	05/10/22 15:00	05/12/22 08:46
880-14735-3	S-3 25'	Solid	05/10/22 15:05	05/12/22 08:46

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No. 2237

14735 CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N Marienfeld Ste 202
Midland TX 79701
432 687 0901

Data Reported to

DATE 5-12-22 PAGE 1 OF 1

PO# LAB WORK ORDER#

PROJECT LOCATION OR NAME SD 19 CTB Manifold

LAI PROJECT # 22-0105-04 COLLECTOR JR

TRRP report? ☐ Yes ☒ No

TIME ZONE
Time zone/State MST/NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☐ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐	TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL MOD 8015 ☐	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐	HOLDPAH ☐	8081 PESTICIDES ☐	8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐	TCLP PEST ☐	TCLP HERB ☐	TCLP VOC ☐	TOTAL METALS (RCRA) ☐	Semi-VOC ☐	LEAD - TOTAL ☐	OTHER LIST ☐	RCI ☐	DW 200.8 ☐	TOX ☐	TCLP ☐	TDS ☐	FLASHPOINT ☐	TSS ☐	% MOISTURE ☐	pH ☐	CYANIDE ☐	HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐	PECHLORATE ☐	CHLORIDE ☐	ANIONS ☐	ALKALINITY ☐	Hold	FIELD NOTES
S-3 15'		5-10-22	1456	S	1				X		X		X	X	X																																Hold Samples
S-3 20'			1500																																											S-3 30', 35', and 40'
S-3 25'			1505																																											
S-3 30'			1510																																									X		
S-3 35'			1515																																									X		
S-3 40'			1520																																									X		

880-14735 Chain of Custody

TOTAL 6

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
Jeta Peters	5/12/22 8:46	
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)

LABORATORY Xenco

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY
RECEIVING TEMP 3.1 THERM# IR2
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL #
☑ HAND DELIVERED

Received by OCD: 8/23/2023 10:56:44 AM

Released to Imaging: 12/5/2023 3:14:43 PM

5/20/2022

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Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-14735-1
SDG Number: 22-0105-04

Login Number: 14735
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.	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 REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 5/11/2023 1:08:59 PM

JOB DESCRIPTION

SD 19 CTB Manifold
SDG NUMBER 2995

JOB NUMBER

880-28227-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 12/5/2023 3:14:45 PM

my EOL

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

Holly Taylor

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Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Laboratory Job ID: 880-28227-1
SDG: 2995

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-28227-1
Project/Site: SD 19 CTB Manifold SDG: 2995

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*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.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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)

Definitions/Glossary

Client: Larson & Associates, Inc.
Job ID: 880-28227-1
Project/Site: SD 19 CTB Manifold
SDG: 2995

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Larson & Associates, Inc. Job ID: 880-28227-1
Project/Site: SD 19 CTB Manifold SDG: 2995

Job ID: 880-28227-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-28227-1

Receipt
The samples were received on 5/10/2023 8:23 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 -8.9°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: C-1, 1' (880-28227-1), C-2, 0-4.1' (880-28227-2), C-3, 1' (880-28227-3), C-4, 1' (880-28227-4), C-5, 4' (880-28227-5), C-6, 4' (880-28227-6), C-7, 1.5' (880-28227-7), C-8, 1.5' (880-28227-8), C-9, 4' (880-28227-9), C-10, 0-4.1' (880-28227-10), C-11, 0-4.1' (880-28227-11) and C-12, 0-1' (880-28227-12).

GC VOA
Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-53009 and analytical batch 880-53007 recovered outside control limits for the following analytes: Benzene. The LCS shows recovery for the batch.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-53009 and analytical batch 880-53007 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: The continuing calibration verification (CCV) associated with batch 880-53006 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-53010/5-A). 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 for preparation batch 880-53010 and analytical batch 880-53006 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.

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: The surrogate recovery for the blank associated with preparation batch 880-53014 and analytical batch 880-52999 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-53014/2-A) and (LCSD 880-53014/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate compounds were inadvertently omitted during the extraction process for the following samples: C-1, 1' (880-28227-1) and (880-28227-A-1-E MS).

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: C-2, 0-4.1' (880-28227-2), C-3, 1' (880-28227-3), C-4, 1' (880-28227-4), C-5, 4' (880-28227-5), C-6, 4' (880-28227-6), C-7, 1.5' (880-28227-7), C-8, 1.5' (880-28227-8), C-9, 4' (880-28227-9), C-10, 0-4.1' (880-28227-10) and (880-28227-A-1-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: C-11, 0-4.1' (880-28227-11) and C-12, 0-1' (880-28227-12). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: An incorrect volume of spiking solution was inadvertently added to the laboratory control sample (LCS), laboratory control sample (LCSD) associated with preparation batch 880-53014 and analytical batch 880-52999. Percent recoveries are based on

Case Narrative

Client: Larson & Associates, Inc. Job ID: 880-28227-1
Project/Site: SD 19 CTB Manifold SDG: 2995

Job ID: 880-28227-1 (Continued)

Laboratory: Eurofins Midland (Continued)

the amount spiked.

Method 8015MOD_NM: Spike compounds were inadvertently omitted during the extraction process for the matrix spike (MS); therefore, matrix spike recoveries are unavailable for preparation batch 880-53014 and analytical batch 880-52999. The associated laboratory control sample (LCS) met acceptance criteria.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-53014 and analytical batch 880-52999 was outside control limits. Sample matrix interference and/or non-homogeneity is suspected.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike (MS) recoveries for preparation batch 880-53024 and 880-53024 and analytical batch 880-53052 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.The associated samples are: C-1, 1' (880-28227-1), C-2, 0-4.1' (880-28227-2), C-3, 1' (880-28227-3), C-4, 1' (880-28227-4), C-5, 4' (880-28227-5), C-6, 4' (880-28227-6), C-7, 1.5' (880-28227-7), C-8, 1.5' (880-28227-8), C-9, 4' (880-28227-9), C-10, 0-4.1' (880-28227-10) and (880-28227-A-1-H MS).

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

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

Client Sample ID: C-1, 1'

Date Collected: 05/09/23 08:00
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-1
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+ F1	0.00199		mg/Kg		05/10/23 08:56	05/10/23 12:31	1
Toluene	**0.00211**		0.00199		mg/Kg		05/10/23 08:56	05/10/23 12:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:56	05/10/23 12:31	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		05/10/23 08:56	05/10/23 12:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:56	05/10/23 12:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/10/23 08:56	05/10/23 12:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*05/10/23 08:56*	*05/10/23 12:31*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*05/10/23 08:56*	*05/10/23 12:31*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/10/23 16:42	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			05/10/23 19:35	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 F1 F2 *-	49.9		mg/Kg		05/10/23 10:07	05/10/23 11:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1 F2 *-*1	49.9		mg/Kg		05/10/23 10:07	05/10/23 11:35	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/10/23 10:07	05/10/23 11:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*2*	*S1-*	*70 - 130*	*05/10/23 10:07*	*05/10/23 11:35*	*1*
o-Terphenyl (Surr)	*0.5*	*S1-*	*70 - 130*	*05/10/23 10:07*	*05/10/23 11:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2850**	**F1**	25.2		mg/Kg			05/10/23 18:47	5

Client Sample ID: C-2, 0-4.1'

Date Collected: 05/09/23 08:05
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-2
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		05/10/23 08:56	05/10/23 17:24	1
Toluene	**0.0104**		0.00200		mg/Kg		05/10/23 08:56	05/10/23 17:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:56	05/10/23 17:24	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		05/10/23 08:56	05/10/23 17:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:56	05/10/23 17:24	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/10/23 08:56	05/10/23 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*05/10/23 08:56*	*05/10/23 17:24*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*05/10/23 08:56*	*05/10/23 17:24*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

Client Sample ID: C-2, 0-4.1'

Date Collected: 05/09/23 08:05
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-2
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0104**		0.00399		mg/Kg			05/11/23 12:57	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			05/10/23 19:35	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		05/10/23 10:07	05/10/23 12:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U *- *1	49.9		mg/Kg		05/10/23 10:07	05/10/23 12:40	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/10/23 10:07	05/10/23 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*259*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 12:40*	*1*
o-Terphenyl (Surr)	*303*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 12:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10000**		99.2		mg/Kg			05/10/23 19:02	20

Client Sample ID: C-3, 1'

Date Collected: 05/09/23 08:10
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-3
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199		mg/Kg		05/10/23 08:56	05/10/23 17:44	1
Toluene	**0.0149**		0.00199		mg/Kg		05/10/23 08:56	05/10/23 17:44	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:56	05/10/23 17:44	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		05/10/23 08:56	05/10/23 17:44	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:56	05/10/23 17:44	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/10/23 08:56	05/10/23 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*05/10/23 08:56*	*05/10/23 17:44*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*05/10/23 08:56*	*05/10/23 17:44*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0149**		0.00398		mg/Kg			05/11/23 12:57	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			05/10/23 19:35	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		05/10/23 10:07	05/10/23 13:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U *- *1	49.9		mg/Kg		05/10/23 10:07	05/10/23 13:02	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

Client Sample ID: C-3, 1'

Date Collected: 05/09/23 08:10
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/10/23 10:07	05/10/23 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*243*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 13:02*	*1*
o-Terphenyl (Surr)	*273*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 13:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4250**		49.9		mg/Kg			05/10/23 19:08	10

Client Sample ID: C-4, 1'

Date Collected: 05/09/23 08:15
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-4
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U F1	0.00201		mg/Kg		05/10/23 08:58	05/10/23 12:50	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/10/23 08:58	05/10/23 12:50	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/10/23 08:58	05/10/23 12:50	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		05/10/23 08:58	05/10/23 12:50	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/10/23 08:58	05/10/23 12:50	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/10/23 08:58	05/10/23 12:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*05/10/23 08:58*	*05/10/23 12:50*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*05/10/23 08:58*	*05/10/23 12:50*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/10/23 16:44	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			05/10/23 19:35	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		05/10/23 10:07	05/10/23 13:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U *- *1	50.0		mg/Kg		05/10/23 10:07	05/10/23 13:24	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/10/23 10:07	05/10/23 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*267*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 13:24*	*1*
o-Terphenyl (Surr)	*299*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 13:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6480**		99.4		mg/Kg			05/10/23 19:13	20

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

Client Sample ID: C-5, 4'

Date Collected: 05/09/23 08:20
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-5
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/10/23 08:58	05/10/23 17:17	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/10/23 08:58	05/10/23 17:17	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/10/23 08:58	05/10/23 17:17	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		05/10/23 08:58	05/10/23 17:17	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/10/23 08:58	05/10/23 17:17	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		05/10/23 08:58	05/10/23 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*05/10/23 08:58*	*05/10/23 17:17*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*05/10/23 08:58*	*05/10/23 17:17*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			05/11/23 13:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			05/10/23 19:35	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	<49.8	U *-	49.8		mg/Kg		05/10/23 10:07	05/10/23 13:46	1
Diesel Range Organics (Over C10-C28)	<49.8	U *- *1	49.8		mg/Kg		05/10/23 10:07	05/10/23 13:46	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/10/23 10:07	05/10/23 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*225*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 13:46*	*1*
o-Terphenyl (Surr)	*266*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 13:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**484**		5.01		mg/Kg			05/10/23 19:18	1

Client Sample ID: C-6, 4'

Date Collected: 05/09/23 08:25
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-6
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 17:38	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 17:38	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 17:38	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		05/10/23 08:58	05/10/23 17:38	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 17:38	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/10/23 08:58	05/10/23 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*05/10/23 08:58*	*05/10/23 17:38*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*05/10/23 08:58*	*05/10/23 17:38*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

Client Sample ID: C-6, 4'

Date Collected: 05/09/23 08:25
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-6
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/11/23 13:01	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			05/10/23 19:35	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		05/10/23 10:07	05/10/23 14:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U *- *1	49.9		mg/Kg		05/10/23 10:07	05/10/23 14:08	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/10/23 10:07	05/10/23 14:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*269*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 14:08*	*1*
o-Terphenyl (Surr)	*316*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 14:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**801**		25.1		mg/Kg			05/10/23 19:34	5

Client Sample ID: C-7, 1.5'

Date Collected: 05/09/23 08:30
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-7
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 17:58	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 17:58	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 17:58	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		05/10/23 08:58	05/10/23 17:58	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 17:58	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/10/23 08:58	05/10/23 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*05/10/23 08:58*	*05/10/23 17:58*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*05/10/23 08:58*	*05/10/23 17:58*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/11/23 13:01	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			05/10/23 19:35	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		05/10/23 10:07	05/10/23 14:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U *- *1	49.9		mg/Kg		05/10/23 10:07	05/10/23 14:29	1

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

Client Sample ID: C-7, 1.5'

Date Collected: 05/09/23 08:30
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-7
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/10/23 10:07	05/10/23 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*219*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 14:29*	*1*
o-Terphenyl (Surr)	*252*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 14:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1070**		25.0		mg/Kg			05/10/23 19:39	5

Client Sample ID: C-8, 1.5'

Date Collected: 05/09/23 08:35
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-8
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:58	05/10/23 18:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:58	05/10/23 18:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:58	05/10/23 18:19	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		05/10/23 08:58	05/10/23 18:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:58	05/10/23 18:19	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/10/23 08:58	05/10/23 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*05/10/23 08:58*	*05/10/23 18:19*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*05/10/23 08:58*	*05/10/23 18:19*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/11/23 13:01	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			05/10/23 19:35	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		05/10/23 10:07	05/10/23 14:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U *- *1	50.0		mg/Kg		05/10/23 10:07	05/10/23 14:51	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/10/23 10:07	05/10/23 14:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*233*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 14:51*	*1*
o-Terphenyl (Surr)	*263*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 14:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1410**		25.1		mg/Kg			05/10/23 19:44	5

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-28227-1
Project/Site: SD 19 CTB Manifold SDG: 2995

Client Sample ID: C-9, 4'
Lab Sample ID: 880-28227-9
Date Collected: 05/09/23 09:00 **Matrix: Solid**
Date Received: 05/10/23 08:23

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/10/23 08:58	05/10/23 18:39	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/10/23 08:58	05/10/23 18:39	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/10/23 08:58	05/10/23 18:39	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		05/10/23 08:58	05/10/23 18:39	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/10/23 08:58	05/10/23 18:39	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/10/23 08:58	05/10/23 18:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*05/10/23 08:58*	*05/10/23 18:39*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*05/10/23 08:58*	*05/10/23 18:39*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/11/23 13:01	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			05/10/23 19:35	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		05/10/23 10:07	05/10/23 15:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U *- *1	49.9		mg/Kg		05/10/23 10:07	05/10/23 15:13	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/10/23 10:07	05/10/23 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*254*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 15:13*	*1*
o-Terphenyl (Surr)	*306*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 15:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1060**		25.1		mg/Kg			05/10/23 19:50	5

Client Sample ID: C-10, 0-4.1'
Lab Sample ID: 880-28227-10
Date Collected: 05/09/23 09:10 **Matrix: Solid**
Date Received: 05/10/23 08:23

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:58	05/10/23 19:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:58	05/10/23 19:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:58	05/10/23 19:00	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		05/10/23 08:58	05/10/23 19:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:58	05/10/23 19:00	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/10/23 08:58	05/10/23 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*05/10/23 08:58*	*05/10/23 19:00*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*05/10/23 08:58*	*05/10/23 19:00*	*1*

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

Client Sample ID: C-10, 0-4.1'

Date Collected: 05/09/23 09:10
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-10
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/11/23 13:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			05/10/23 19:35	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	<49.8	U *-	49.8		mg/Kg		05/10/23 10:07	05/10/23 15:34	1
Diesel Range Organics (Over C10-C28)	<49.8	U *- *1	49.8		mg/Kg		05/10/23 10:07	05/10/23 15:34	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/10/23 10:07	05/10/23 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*228*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 15:34*	*1*
o-Terphenyl (Surr)	*258*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 15:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1670**		25.0		mg/Kg			05/10/23 19:55	5

Client Sample ID: C-11, 0-4.1'

Date Collected: 05/09/23 09:20
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-11
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 19:20	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 19:20	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 19:20	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		05/10/23 08:58	05/10/23 19:20	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 19:20	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/10/23 08:58	05/10/23 19:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*05/10/23 08:58*	*05/10/23 19:20*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*05/10/23 08:58*	*05/10/23 19:20*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/11/23 13:01	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			05/10/23 19:35	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	<49.8	U *-	49.8		mg/Kg		05/10/23 10:07	05/10/23 16:17	1
Diesel Range Organics (Over C10-C28)	<49.8	U *- *1	49.8		mg/Kg		05/10/23 10:07	05/10/23 16:17	1

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

Client Sample ID: C-11, 0-4.1'

Date Collected: 05/09/23 09:20
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-11
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/10/23 10:07	05/10/23 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*410*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 16:17*	*1*
o-Terphenyl (Surr)	*416*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 16:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**748**		24.8		mg/Kg			05/10/23 20:00	5

Client Sample ID: C-12, 0-1'

Date Collected: 05/09/23 09:30
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-12
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 19:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 19:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 19:40	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		05/10/23 08:58	05/10/23 19:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/10/23 08:58	05/10/23 19:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/10/23 08:58	05/10/23 19:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*05/10/23 08:58*	*05/10/23 19:40*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*05/10/23 08:58*	*05/10/23 19:40*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/11/23 13:01	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			05/10/23 19:35	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		05/10/23 10:07	05/10/23 16:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U *- *1	50.0		mg/Kg		05/10/23 10:07	05/10/23 16:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/10/23 10:07	05/10/23 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*237*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 16:38*	*1*
o-Terphenyl (Surr)	*287*	*S1+*	*70 - 130*	*05/10/23 10:07*	*05/10/23 16:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1440**		25.2		mg/Kg			05/10/23 20:16	5

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

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)
880-28227-1	C-1, 1'	102	116
880-28227-1 MS	C-1, 1'	104	107
880-28227-1 MSD	C-1, 1'	95	108
880-28227-2	C-2, 0-4.1'	87	114
880-28227-3	C-3, 1'	99	109
880-28227-4	C-4, 1'	85	101
880-28227-4 MS	C-4, 1'	99	115
880-28227-4 MSD	C-4, 1'	102	105
880-28227-5	C-5, 4'	81	78
880-28227-6	C-6, 4'	87	75
880-28227-7	C-7, 1.5'	90	93
880-28227-8	C-8, 1.5'	90	92
880-28227-9	C-9, 4'	87	92
880-28227-10	C-10, 0-4.1'	89	87
880-28227-11	C-11, 0-4.1'	87	78
880-28227-12	C-12, 0-1'	92	82
LCS 880-53009/1-A	Lab Control Sample	99	106
LCS 880-53010/1-A	Lab Control Sample	108	104
LCSD 880-53009/2-A	Lab Control Sample Dup	102	102
LCSD 880-53010/2-A	Lab Control Sample Dup	108	106
MB 880-53009/5-A	Method Blank	97	108
MB 880-53010/5-A	Method Blank	66 S1-	77

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)
880-28227-1	C-1, 1'	2 S1-	0.5 S1-
880-28227-1 MS	C-1, 1'	2 S1-	0.4 S1-
880-28227-1 MSD	C-1, 1'	170 S1+	176 S1+
880-28227-2	C-2, 0-4.1'	259 S1+	303 S1+
880-28227-3	C-3, 1'	243 S1+	273 S1+
880-28227-4	C-4, 1'	267 S1+	299 S1+
880-28227-5	C-5, 4'	225 S1+	266 S1+
880-28227-6	C-6, 4'	269 S1+	316 S1+
880-28227-7	C-7, 1.5'	219 S1+	252 S1+
880-28227-8	C-8, 1.5'	233 S1+	263 S1+
880-28227-9	C-9, 4'	254 S1+	306 S1+
880-28227-10	C-10, 0-4.1'	228 S1+	258 S1+
880-28227-11	C-11, 0-4.1'	410 S1+	416 S1+
880-28227-12	C-12, 0-1'	237 S1+	287 S1+
LCS 880-53014/2-A	Lab Control Sample	62 S1-	74
LCSD 880-53014/3-A	Lab Control Sample Dup	50 S1-	57 S1-
MB 880-53014/1-A	Method Blank	117	150 S1+

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-53009/5-A
Matrix: Solid
Analysis Batch: 53007

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 53009

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:56	05/10/23 12:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:56	05/10/23 12:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:56	05/10/23 12:09	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		05/10/23 08:56	05/10/23 12:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:56	05/10/23 12:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/10/23 08:56	05/10/23 12:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*05/10/23 08:56*	*05/10/23 12:09*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*05/10/23 08:56*	*05/10/23 12:09*	*1*

Lab Sample ID: LCS 880-53009/1-A
Matrix: Solid
Analysis Batch: 53007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53009

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1288		mg/Kg		129	70 - 130		
Toluene			0.100	0.1170		mg/Kg		117	70 - 130		
Ethylbenzene			0.100	0.1109		mg/Kg		111	70 - 130		
m,p-Xylenes			0.200	0.2216		mg/Kg		111	70 - 130		
o-Xylene			0.100	0.1080		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-53009/2-A
Matrix: Solid
Analysis Batch: 53007

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 53009

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1413	*+	mg/Kg		141	70 - 130	9	35
Toluene			0.100	0.1228		mg/Kg		123	70 - 130	5	35
Ethylbenzene			0.100	0.1218		mg/Kg		122	70 - 130	9	35
m,p-Xylenes			0.200	0.2446		mg/Kg		122	70 - 130	10	35
o-Xylene			0.100	0.1207		mg/Kg		121	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 880-28227-1 MS
Matrix: Solid
Analysis Batch: 53007

Client Sample ID: C-1, 1'
Prep Type: Total/NA
Prep Batch: 53009

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U *+ F1	0.0998	0.1492	F1	mg/Kg		149	70 - 130		
Toluene	0.00211		0.0998	0.1223		mg/Kg		120	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-28227-1
Project/Site: SD 19 CTB Manifold SDG: 2995

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

Lab Sample ID: 880-28227-1 MS **Client Sample ID: C-1, 1'**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 53007 **Prep Batch: 53009**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0998	0.1191		mg/Kg		119	70 - 130
m,p-Xylenes	<0.00398	U	0.200	0.2379		mg/Kg		119	70 - 130
o-Xylene	<0.00199	U	0.0998	0.1148		mg/Kg		115	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: 880-28227-1 MSD **Client Sample ID: C-1, 1'**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 53007 **Prep Batch: 53009**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U *+ F1	0.0990	0.1492	F1	mg/Kg		150	70 - 130	0	35
Toluene	0.00211		0.0990	0.1188		mg/Kg		118	70 - 130	3	35
Ethylbenzene	<0.00199	U	0.0990	0.1143		mg/Kg		115	70 - 130	4	35
m,p-Xylenes	<0.00398	U	0.198	0.2238		mg/Kg		113	70 - 130	6	35
o-Xylene	<0.00199	U	0.0990	0.1089		mg/Kg		110	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: MB 880-53010/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 53006 **Prep Batch: 53010**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:58	05/10/23 12:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:58	05/10/23 12:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:58	05/10/23 12:28	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		05/10/23 08:58	05/10/23 12:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/10/23 08:58	05/10/23 12:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/10/23 08:58	05/10/23 12:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*66*	*S1-*	*70 - 130*	*05/10/23 08:58*	*05/10/23 12:28*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*05/10/23 08:58*	*05/10/23 12:28*	*1*

Lab Sample ID: LCS 880-53010/1-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 53006 **Prep Batch: 53010**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1261		mg/Kg		126	70 - 130
Toluene	0.100	0.1265		mg/Kg		126	70 - 130
Ethylbenzene	0.100	0.1252		mg/Kg		125	70 - 130
m,p-Xylenes	0.200	0.2570		mg/Kg		129	70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

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

Lab Sample ID: LCS 880-53010/1-A
Matrix: Solid
Analysis Batch: 53006

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53010

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
o-Xylene			0.100	0.1257		mg/Kg		126	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-53010/2-A
Matrix: Solid
Analysis Batch: 53006

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 53010

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1188		mg/Kg		119	70 - 130	6	35
Toluene			0.100	0.1175		mg/Kg		118	70 - 130	7	35
Ethylbenzene			0.100	0.1102		mg/Kg		110	70 - 130	13	35
m,p-Xylenes			0.200	0.2280		mg/Kg		114	70 - 130	12	35
o-Xylene			0.100	0.1113		mg/Kg		111	70 - 130	12	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 880-28227-4 MS
Matrix: Solid
Analysis Batch: 53006

Client Sample ID: C-4, 1'
Prep Type: Total/NA
Prep Batch: 53010

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U F1	0.100	0.1289		mg/Kg		128	70 - 130		
Toluene	<0.00201	U	0.100	0.1203		mg/Kg		119	70 - 130		
Ethylbenzene	<0.00201	U	0.100	0.1121		mg/Kg		112	70 - 130		
m,p-Xylenes	<0.00402	U	0.201	0.2240		mg/Kg		112	70 - 130		
o-Xylene	<0.00201	U	0.100	0.1087		mg/Kg		108	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*

Lab Sample ID: 880-28227-4 MSD
Matrix: Solid
Analysis Batch: 53006

Client Sample ID: C-4, 1'
Prep Type: Total/NA
Prep Batch: 53010

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0990	0.1349	F1	mg/Kg		136	70 - 130	5	35
Toluene	<0.00201	U	0.0990	0.1177		mg/Kg		118	70 - 130	2	35
Ethylbenzene	<0.00201	U	0.0990	0.1085		mg/Kg		110	70 - 130	3	35
m,p-Xylenes	<0.00402	U	0.198	0.2191		mg/Kg		111	70 - 130	2	35
o-Xylene	<0.00201	U	0.0990	0.1068		mg/Kg		108	70 - 130	2	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

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

Lab Sample ID: 880-28227-4 MSD
Matrix: Solid
Analysis Batch: 53006

Client Sample ID: C-4, 1'
Prep Type: Total/NA
Prep Batch: 53010

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

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

Lab Sample ID: MB 880-53014/1-A
Matrix: Solid
Analysis Batch: 52999

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 53014

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/10/23 08:07	05/10/23 09:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/10/23 08:07	05/10/23 09:04	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/10/23 08:07	05/10/23 09:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	117		70 - 130	05/10/23 08:07	05/10/23 09:04	1
o-Terphenyl (Surr)	150	S1+	70 - 130	05/10/23 08:07	05/10/23 09:04	1

Lab Sample ID: LCS 880-53014/2-A
Matrix: Solid
Analysis Batch: 52999

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53014

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	461.8	*-	mg/Kg		46	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	505.7	*-	mg/Kg		51	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	62	S1-	70 - 130
o-Terphenyl (Surr)	74		70 - 130

Lab Sample ID: LCSD 880-53014/3-A
Matrix: Solid
Analysis Batch: 52999

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 53014

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	448.4	*-	mg/Kg		45	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	405.8	*- *1	mg/Kg		41	70 - 130	22	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	50	S1-	70 - 130
o-Terphenyl (Surr)	57	S1-	70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

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

Lab Sample ID: 880-28227-1 MS
Matrix: Solid
Analysis Batch: 52999

Client Sample ID: C-1, 1'
Prep Type: Total/NA
Prep Batch: 53014

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 F1 F2 *-	997	<49.9	U F1	mg/Kg		4	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1 F2 *- *1	997	<49.9	U F1	mg/Kg		2	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*2*	*S1-*	*70 - 130*
o-Terphenyl (Surr)	*0.4*	*S1-*	*70 - 130*

Lab Sample ID: 880-28227-1 MSD
Matrix: Solid
Analysis Batch: 52999

Client Sample ID: C-1, 1'
Prep Type: Total/NA
Prep Batch: 53014

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 F1 F2 *-	999	1268	F2	mg/Kg		127	70 - 130	187	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1 F2 *- *1	999	1418	F1 F2	mg/Kg		142	70 - 130	196	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*170*	*S1+*	*70 - 130*
o-Terphenyl (Surr)	*176*	*S1+*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-53024/1-A
Matrix: Solid
Analysis Batch: 53052

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			05/10/23 18:31	1

Lab Sample ID: LCS 880-53024/2-A
Matrix: Solid
Analysis Batch: 53052

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			250	258.3		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-53024/3-A
Matrix: Solid
Analysis Batch: 53052

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	255.7		mg/Kg		102	90 - 110	1	20

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-28227-1 MS
Matrix: Solid
Analysis Batch: 53052

Client Sample ID: C-1, 1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2850	F1	1260	3971	F1	mg/Kg		89	90 - 110

Lab Sample ID: 880-28227-1 MSD
Matrix: Solid
Analysis Batch: 53052

Client Sample ID: C-1, 1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2850	F1	1260	3982		mg/Kg		90	90 - 110	0	20

Lab Sample ID: 880-28227-11 MS
Matrix: Solid
Analysis Batch: 53052

Client Sample ID: C-11, 0-4.1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	748		1240	1999		mg/Kg		101	90 - 110

Lab Sample ID: 880-28227-11 MSD
Matrix: Solid
Analysis Batch: 53052

Client Sample ID: C-11, 0-4.1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	748		1240	2007		mg/Kg		102	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

GC VOA

Analysis Batch: 53006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28227-4	C-4, 1'	Total/NA	Solid	8021B	53010
880-28227-5	C-5, 4'	Total/NA	Solid	8021B	53010
880-28227-6	C-6, 4'	Total/NA	Solid	8021B	53010
880-28227-7	C-7, 1.5'	Total/NA	Solid	8021B	53010
880-28227-8	C-8, 1.5'	Total/NA	Solid	8021B	53010
880-28227-9	C-9, 4'	Total/NA	Solid	8021B	53010
880-28227-10	C-10, 0-4.1'	Total/NA	Solid	8021B	53010
880-28227-11	C-11, 0-4.1'	Total/NA	Solid	8021B	53010
880-28227-12	C-12, 0-1'	Total/NA	Solid	8021B	53010
MB 880-53010/5-A	Method Blank	Total/NA	Solid	8021B	53010
LCS 880-53010/1-A	Lab Control Sample	Total/NA	Solid	8021B	53010
LCSD 880-53010/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	53010
880-28227-4 MS	C-4, 1'	Total/NA	Solid	8021B	53010
880-28227-4 MSD	C-4, 1'	Total/NA	Solid	8021B	53010

Analysis Batch: 53007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28227-1	C-1, 1'	Total/NA	Solid	8021B	53009
880-28227-2	C-2, 0-4.1'	Total/NA	Solid	8021B	53009
880-28227-3	C-3, 1'	Total/NA	Solid	8021B	53009
MB 880-53009/5-A	Method Blank	Total/NA	Solid	8021B	53009
LCS 880-53009/1-A	Lab Control Sample	Total/NA	Solid	8021B	53009
LCSD 880-53009/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	53009
880-28227-1 MS	C-1, 1'	Total/NA	Solid	8021B	53009
880-28227-1 MSD	C-1, 1'	Total/NA	Solid	8021B	53009

Prep Batch: 53009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28227-1	C-1, 1'	Total/NA	Solid	5035	
880-28227-2	C-2, 0-4.1'	Total/NA	Solid	5035	
880-28227-3	C-3, 1'	Total/NA	Solid	5035	
MB 880-53009/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-53009/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-53009/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-28227-1 MS	C-1, 1'	Total/NA	Solid	5035	
880-28227-1 MSD	C-1, 1'	Total/NA	Solid	5035	

Prep Batch: 53010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28227-4	C-4, 1'	Total/NA	Solid	5035	
880-28227-5	C-5, 4'	Total/NA	Solid	5035	
880-28227-6	C-6, 4'	Total/NA	Solid	5035	
880-28227-7	C-7, 1.5'	Total/NA	Solid	5035	
880-28227-8	C-8, 1.5'	Total/NA	Solid	5035	
880-28227-9	C-9, 4'	Total/NA	Solid	5035	
880-28227-10	C-10, 0-4.1'	Total/NA	Solid	5035	
880-28227-11	C-11, 0-4.1'	Total/NA	Solid	5035	
880-28227-12	C-12, 0-1'	Total/NA	Solid	5035	
MB 880-53010/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-53010/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-53010/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-28227-1
Project/Site: SD 19 CTB Manifold SDG: 2995

GC VOA (Continued)

Prep Batch: 53010 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28227-4 MS	C-4, 1'	Total/NA	Solid	5035	
880-28227-4 MSD	C-4, 1'	Total/NA	Solid	5035	

Analysis Batch: 53061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28227-1	C-1, 1'	Total/NA	Solid	Total BTEX	
880-28227-2	C-2, 0-4.1'	Total/NA	Solid	Total BTEX	
880-28227-3	C-3, 1'	Total/NA	Solid	Total BTEX	
880-28227-4	C-4, 1'	Total/NA	Solid	Total BTEX	
880-28227-5	C-5, 4'	Total/NA	Solid	Total BTEX	
880-28227-6	C-6, 4'	Total/NA	Solid	Total BTEX	
880-28227-7	C-7, 1.5'	Total/NA	Solid	Total BTEX	
880-28227-8	C-8, 1.5'	Total/NA	Solid	Total BTEX	
880-28227-9	C-9, 4'	Total/NA	Solid	Total BTEX	
880-28227-10	C-10, 0-4.1'	Total/NA	Solid	Total BTEX	
880-28227-11	C-11, 0-4.1'	Total/NA	Solid	Total BTEX	
880-28227-12	C-12, 0-1'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 52999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28227-1	C-1, 1'	Total/NA	Solid	8015B NM	53014
880-28227-2	C-2, 0-4.1'	Total/NA	Solid	8015B NM	53014
880-28227-3	C-3, 1'	Total/NA	Solid	8015B NM	53014
880-28227-4	C-4, 1'	Total/NA	Solid	8015B NM	53014
880-28227-5	C-5, 4'	Total/NA	Solid	8015B NM	53014
880-28227-6	C-6, 4'	Total/NA	Solid	8015B NM	53014
880-28227-7	C-7, 1.5'	Total/NA	Solid	8015B NM	53014
880-28227-8	C-8, 1.5'	Total/NA	Solid	8015B NM	53014
880-28227-9	C-9, 4'	Total/NA	Solid	8015B NM	53014
880-28227-10	C-10, 0-4.1'	Total/NA	Solid	8015B NM	53014
880-28227-11	C-11, 0-4.1'	Total/NA	Solid	8015B NM	53014
880-28227-12	C-12, 0-1'	Total/NA	Solid	8015B NM	53014
MB 880-53014/1-A	Method Blank	Total/NA	Solid	8015B NM	53014
LCS 880-53014/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	53014
LCSD 880-53014/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	53014
880-28227-1 MS	C-1, 1'	Total/NA	Solid	8015B NM	53014
880-28227-1 MSD	C-1, 1'	Total/NA	Solid	8015B NM	53014

Prep Batch: 53014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28227-1	C-1, 1'	Total/NA	Solid	8015NM Prep	
880-28227-2	C-2, 0-4.1'	Total/NA	Solid	8015NM Prep	
880-28227-3	C-3, 1'	Total/NA	Solid	8015NM Prep	
880-28227-4	C-4, 1'	Total/NA	Solid	8015NM Prep	
880-28227-5	C-5, 4'	Total/NA	Solid	8015NM Prep	
880-28227-6	C-6, 4'	Total/NA	Solid	8015NM Prep	
880-28227-7	C-7, 1.5'	Total/NA	Solid	8015NM Prep	
880-28227-8	C-8, 1.5'	Total/NA	Solid	8015NM Prep	
880-28227-9	C-9, 4'	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-28227-1
Project/Site: SD 19 CTB Manifold SDG: 2995

GC Semi VOA (Continued)

Prep Batch: 53014 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28227-10	C-10, 0-4.1'	Total/NA	Solid	8015NM Prep	
880-28227-11	C-11, 0-4.1'	Total/NA	Solid	8015NM Prep	
880-28227-12	C-12, 0-1'	Total/NA	Solid	8015NM Prep	
MB 880-53014/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-53014/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-53014/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-28227-1 MS	C-1, 1'	Total/NA	Solid	8015NM Prep	
880-28227-1 MSD	C-1, 1'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 53073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28227-1	C-1, 1'	Total/NA	Solid	8015 NM	
880-28227-2	C-2, 0-4.1'	Total/NA	Solid	8015 NM	
880-28227-3	C-3, 1'	Total/NA	Solid	8015 NM	
880-28227-4	C-4, 1'	Total/NA	Solid	8015 NM	
880-28227-5	C-5, 4'	Total/NA	Solid	8015 NM	
880-28227-6	C-6, 4'	Total/NA	Solid	8015 NM	
880-28227-7	C-7, 1.5'	Total/NA	Solid	8015 NM	
880-28227-8	C-8, 1.5'	Total/NA	Solid	8015 NM	
880-28227-9	C-9, 4'	Total/NA	Solid	8015 NM	
880-28227-10	C-10, 0-4.1'	Total/NA	Solid	8015 NM	
880-28227-11	C-11, 0-4.1'	Total/NA	Solid	8015 NM	
880-28227-12	C-12, 0-1'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 53024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28227-1	C-1, 1'	Soluble	Solid	DI Leach	
880-28227-2	C-2, 0-4.1'	Soluble	Solid	DI Leach	
880-28227-3	C-3, 1'	Soluble	Solid	DI Leach	
880-28227-4	C-4, 1'	Soluble	Solid	DI Leach	
880-28227-5	C-5, 4'	Soluble	Solid	DI Leach	
880-28227-6	C-6, 4'	Soluble	Solid	DI Leach	
880-28227-7	C-7, 1.5'	Soluble	Solid	DI Leach	
880-28227-8	C-8, 1.5'	Soluble	Solid	DI Leach	
880-28227-9	C-9, 4'	Soluble	Solid	DI Leach	
880-28227-10	C-10, 0-4.1'	Soluble	Solid	DI Leach	
880-28227-11	C-11, 0-4.1'	Soluble	Solid	DI Leach	
880-28227-12	C-12, 0-1'	Soluble	Solid	DI Leach	
MB 880-53024/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-53024/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-53024/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-28227-1 MS	C-1, 1'	Soluble	Solid	DI Leach	
880-28227-1 MSD	C-1, 1'	Soluble	Solid	DI Leach	
880-28227-11 MS	C-11, 0-4.1'	Soluble	Solid	DI Leach	
880-28227-11 MSD	C-11, 0-4.1'	Soluble	Solid	DI Leach	

Analysis Batch: 53052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28227-1	C-1, 1'	Soluble	Solid	300.0	53024

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-28227-1
Project/Site: SD 19 CTB Manifold SDG: 2995

HPLC/IC (Continued)

Analysis Batch: 53052 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28227-2	C-2, 0-4.1'	Soluble	Solid	300.0	53024
880-28227-3	C-3, 1'	Soluble	Solid	300.0	53024
880-28227-4	C-4, 1'	Soluble	Solid	300.0	53024
880-28227-5	C-5, 4'	Soluble	Solid	300.0	53024
880-28227-6	C-6, 4'	Soluble	Solid	300.0	53024
880-28227-7	C-7, 1.5'	Soluble	Solid	300.0	53024
880-28227-8	C-8, 1.5'	Soluble	Solid	300.0	53024
880-28227-9	C-9, 4'	Soluble	Solid	300.0	53024
880-28227-10	C-10, 0-4.1'	Soluble	Solid	300.0	53024
880-28227-11	C-11, 0-4.1'	Soluble	Solid	300.0	53024
880-28227-12	C-12, 0-1'	Soluble	Solid	300.0	53024
MB 880-53024/1-A	Method Blank	Soluble	Solid	300.0	53024
LCS 880-53024/2-A	Lab Control Sample	Soluble	Solid	300.0	53024
LCSD 880-53024/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	53024
880-28227-1 MS	C-1, 1'	Soluble	Solid	300.0	53024
880-28227-1 MSD	C-1, 1'	Soluble	Solid	300.0	53024
880-28227-11 MS	C-11, 0-4.1'	Soluble	Solid	300.0	53024
880-28227-11 MSD	C-11, 0-4.1'	Soluble	Solid	300.0	53024

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

Client Sample ID: C-1, 1'
Date Collected: 05/09/23 08:00
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-1
Matrix: Solid

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	53009	05/10/23 08:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53007	05/10/23 12:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53061	05/10/23 16:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			53073	05/10/23 19:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	53014	05/10/23 10:07	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52999	05/10/23 11:35	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	53024	05/10/23 10:31	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	53052	05/10/23 18:47	SMC	EET MID

Client Sample ID: C-2, 0-4.1'
Date Collected: 05/09/23 08:05
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-2
Matrix: Solid

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	53009	05/10/23 08:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53007	05/10/23 17:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53061	05/11/23 12:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			53073	05/10/23 19:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	53014	05/10/23 10:07	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52999	05/10/23 12:40	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	53024	05/10/23 10:31	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	53052	05/10/23 19:02	SMC	EET MID

Client Sample ID: C-3, 1'
Date Collected: 05/09/23 08:10
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-3
Matrix: Solid

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	53009	05/10/23 08:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53007	05/10/23 17:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53061	05/11/23 12:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			53073	05/10/23 19:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	53014	05/10/23 10:07	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52999	05/10/23 13:02	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	53024	05/10/23 10:31	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	53052	05/10/23 19:08	SMC	EET MID

Client Sample ID: C-4, 1'
Date Collected: 05/09/23 08:15
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	53010	05/10/23 08:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53006	05/10/23 12:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53061	05/10/23 16:44	SM	EET MID

Lab Chronicle

Client: Larson & Associates, Inc. Job ID: 880-28227-1
Project/Site: SD 19 CTB Manifold SDG: 2995

Client Sample ID: C-4, 1' Lab Sample ID: 880-28227-4

Date Collected: 05/09/23 08:15 **Matrix: Solid**
Date Received: 05/10/23 08:23

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			53073	05/10/23 19:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	53014	05/10/23 10:07	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52999	05/10/23 13:24	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	53024	05/10/23 10:31	KS	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	53052	05/10/23 19:13	SMC	EET MID

Client Sample ID: C-5, 4' Lab Sample ID: 880-28227-5

Date Collected: 05/09/23 08:20 **Matrix: Solid**
Date Received: 05/10/23 08:23

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	53010	05/10/23 08:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53006	05/10/23 17:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53061	05/11/23 13:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			53073	05/10/23 19:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	53014	05/10/23 10:07	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52999	05/10/23 13:46	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	53024	05/10/23 10:31	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	53052	05/10/23 19:18	SMC	EET MID

Client Sample ID: C-6, 4' Lab Sample ID: 880-28227-6

Date Collected: 05/09/23 08:25 **Matrix: Solid**
Date Received: 05/10/23 08:23

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	53010	05/10/23 08:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53006	05/10/23 17:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53061	05/11/23 13:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			53073	05/10/23 19:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	53014	05/10/23 10:07	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52999	05/10/23 14:08	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	53024	05/10/23 10:31	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	53052	05/10/23 19:34	SMC	EET MID

Client Sample ID: C-7, 1.5' Lab Sample ID: 880-28227-7

Date Collected: 05/09/23 08:30 **Matrix: Solid**
Date Received: 05/10/23 08:23

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	53010	05/10/23 08:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53006	05/10/23 17:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53061	05/11/23 13:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			53073	05/10/23 19:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	53014	05/10/23 10:07	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52999	05/10/23 14:29	SM	EET MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

Client Sample ID: C-7, 1.5'
Date Collected: 05/09/23 08:30
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-7
Matrix: Solid

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	53024	05/10/23 10:31	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	53052	05/10/23 19:39	SMC	EET MID

Client Sample ID: C-8, 1.5'
Date Collected: 05/09/23 08:35
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-8
Matrix: Solid

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	53010	05/10/23 08:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53006	05/10/23 18:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53061	05/11/23 13:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			53073	05/10/23 19:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	53014	05/10/23 10:07	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52999	05/10/23 14:51	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	53024	05/10/23 10:31	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	53052	05/10/23 19:44	SMC	EET MID

Client Sample ID: C-9, 4'
Date Collected: 05/09/23 09:00
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	53010	05/10/23 08:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53006	05/10/23 18:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53061	05/11/23 13:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			53073	05/10/23 19:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	53014	05/10/23 10:07	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52999	05/10/23 15:13	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	53024	05/10/23 10:31	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	53052	05/10/23 19:50	SMC	EET MID

Client Sample ID: C-10, 0-4.1'
Date Collected: 05/09/23 09:10
Date Received: 05/10/23 08:23

Lab Sample ID: 880-28227-10
Matrix: Solid

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	53010	05/10/23 08:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53006	05/10/23 19:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53061	05/11/23 13:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			53073	05/10/23 19:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	53014	05/10/23 10:07	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52999	05/10/23 15:34	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	53024	05/10/23 10:31	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	53052	05/10/23 19:55	SMC	EET MID

Lab Chronicle

Client: Larson & Associates, Inc.
Job ID: 880-28227-1
Project/Site: SD 19 CTB Manifold
SDG: 2995

Client Sample ID: C-11, 0-4.1'
Lab Sample ID: 880-28227-11
Date Collected: 05/09/23 09:20
Matrix: Solid
Date Received: 05/10/23 08:23

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	53010	05/10/23 08:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53006	05/10/23 19:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53061	05/11/23 13:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			53073	05/10/23 19:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	53014	05/10/23 10:07	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52999	05/10/23 16:17	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	53024	05/10/23 10:31	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	53052	05/10/23 20:00	SMC	EET MID

Client Sample ID: C-12, 0-1'
Lab Sample ID: 880-28227-12
Date Collected: 05/09/23 09:30
Matrix: Solid
Date Received: 05/10/23 08:23

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	53010	05/10/23 08:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53006	05/10/23 19:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53061	05/11/23 13:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			53073	05/10/23 19:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	53014	05/10/23 10:07	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52999	05/10/23 16:38	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	53024	05/10/23 10:31	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	53052	05/10/23 20:16	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-28227-1
Project/Site: SD 19 CTB Manifold SDG: 2995

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
Total BTEX		Solid	Total BTEX

Method Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
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
5035	Closed System Purge and Trap	SW846	EET MID
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 MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-28227-1
SDG: 2995

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-28227-1	C-1, 1'	Solid	05/09/23 08:00	05/10/23 08:23
880-28227-2	C-2, 0-4.1'	Solid	05/09/23 08:05	05/10/23 08:23
880-28227-3	C-3, 1'	Solid	05/09/23 08:10	05/10/23 08:23
880-28227-4	C-4, 1'	Solid	05/09/23 08:15	05/10/23 08:23
880-28227-5	C-5, 4'	Solid	05/09/23 08:20	05/10/23 08:23
880-28227-6	C-6, 4'	Solid	05/09/23 08:25	05/10/23 08:23
880-28227-7	C-7, 1.5'	Solid	05/09/23 08:30	05/10/23 08:23
880-28227-8	C-8, 1.5'	Solid	05/09/23 08:35	05/10/23 08:23
880-28227-9	C-9, 4'	Solid	05/09/23 09:00	05/10/23 08:23
880-28227-10	C-10, 0-4.1'	Solid	05/09/23 09:10	05/10/23 08:23
880-28227-11	C-11, 0-4.1'	Solid	05/09/23 09:20	05/10/23 08:23
880-28227-12	C-12, 0-1'	Solid	05/09/23 09:30	05/10/23 08:23

Released to Imaging: 12/5/2023 3:14:43 PM
Received by OCD: 8/23/2023 10:56:44 AM

20227

No. 2995

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 202
Midland, TX 79701
432-687-0901

Data Reported to

DATE 5-9-23 PAGE 1 OF 1

PO# LAB WORK ORDER#.

PROJECT LOCATION OR NAME SD 19 CTB Manifold

LAI PROJECT # 22-0105-04 COLLECTOR KG

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State Mnt / NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH ☐ | ICE | UNPRESSERVED

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | OIL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D W 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ CYANIDE ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	BTEX ☐ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D W 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐	pH ☐ HEXAVALENT CHROMIUM ☐ CYANIDE ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
C-1 1'		5-9-23	0800	S	1				X		X		X	X	X														X	202
C-2, 0-4'			0805																											
C-3, 1'			0810																											
C-4, 1'			0815																											
C-5, 4'			0820																											
C-6, 4'			0825																											
C-7, 1.5'			0830																											
C-8, 1.5'			0835																											
C-9, 4'			0900																											
C-10, 0-4'			0910																											
C-11, 0-4'			0920																											
C-12, 0-1'			0930																											
TOTAL																														

880-28227 Chain of Custody

RELINQUISHED BY (Signature)	DATE/TIME 5-10-23 823	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
LABORATORY Xenco		

TURN AROUND TIME
NORMAL ☐
1 DAY ☒
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP -9.2/-8.9 THERM# IR8 -36
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☐ CARRIER BILL #
☒ HAND DELIVERED

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-28227-1
SDG Number: 2995

Login Number: 28227
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.	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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 5/22/2023 3:58:55 PM

JOB DESCRIPTION

SD 19 CTB Manifield
SDG NUMBER 21-0105-04

JOB NUMBER

880-28403-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 12/5/2023 3:14:45 PM

my EOL

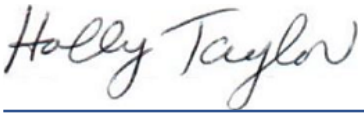
Eurofins Midland

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



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5/22/2023 3:58:55 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Laboratory Job ID: 880-28403-1
SDG: 21-0105-04

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-28403-1
Project/Site: SD 19 CTB Manifield SDG: 21-0105-04

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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
S1+	Surrogate recovery exceeds control limits, high biased.
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: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Job ID: 880-28403-1
SDG: 21-0105-04

Job ID: 880-28403-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-28403-1

Receipt
The samples were received on 5/15/2023 8:33 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 -6.6°C

GC VOA
Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-53575 and analytical batch 880-53791 recovered outside control limits for the following analytes: Benzene. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-53575 and analytical batch 880-53791 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.

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: The surrogate recovery for the blank associated with preparation batch 880-53468 and analytical batch 880-53448 was outside the upper control limits.

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: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Job ID: 880-28403-1
SDG: 21-0105-04

Client Sample ID: BF-2

Date Collected: 05/11/23 12:00
Date Received: 05/15/23 08:33

Lab Sample ID: 880-28403-1
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *+ F1	0.00198		mg/Kg		05/17/23 10:45	05/20/23 19:33	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/17/23 10:45	05/20/23 19:33	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/17/23 10:45	05/20/23 19:33	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		05/17/23 10:45	05/20/23 19:33	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/17/23 10:45	05/20/23 19:33	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/17/23 10:45	05/20/23 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*05/17/23 10:45*	*05/20/23 19:33*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/17/23 10:45*	*05/20/23 19:33*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			05/22/23 12:48	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			05/17/23 11:56	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		05/16/23 11:44	05/17/23 02:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/16/23 11:44	05/17/23 02:10	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/16/23 11:44	05/17/23 02:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*122*		*70 - 130*	*05/16/23 11:44*	*05/17/23 02:10*	*1*
o-Terphenyl (Surr)	*91*		*70 - 130*	*05/16/23 11:44*	*05/17/23 02:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**364**		4.98		mg/Kg			05/17/23 13:27	1

Client Sample ID: BF-4

Date Collected: 05/11/23 12:05
Date Received: 05/15/23 08:33

Lab Sample ID: 880-28403-2
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199		mg/Kg		05/17/23 10:45	05/20/23 19:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/17/23 10:45	05/20/23 19:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/17/23 10:45	05/20/23 19:54	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		05/17/23 10:45	05/20/23 19:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/17/23 10:45	05/20/23 19:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/17/23 10:45	05/20/23 19:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*05/17/23 10:45*	*05/20/23 19:54*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*05/17/23 10:45*	*05/20/23 19:54*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Job ID: 880-28403-1
SDG: 21-0105-04

Client Sample ID: BF-4

Date Collected: 05/11/23 12:05
Date Received: 05/15/23 08:33

Lab Sample ID: 880-28403-2
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/22/23 12:48	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			05/17/23 11:56	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		05/16/23 11:44	05/17/23 02:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/16/23 11:44	05/17/23 02:32	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/16/23 11:44	05/17/23 02:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*117*		*70 - 130*	*05/16/23 11:44*	*05/17/23 02:32*	*1*
o-Terphenyl (Surr)	*86*		*70 - 130*	*05/16/23 11:44*	*05/17/23 02:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**220**		4.96		mg/Kg			05/17/23 13:33	1

Client Sample ID: BF-5

Date Collected: 05/11/23 12:10
Date Received: 05/15/23 08:33

Lab Sample ID: 880-28403-3
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		05/17/23 10:45	05/20/23 20:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/17/23 10:45	05/20/23 20:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/17/23 10:45	05/20/23 20:14	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		05/17/23 10:45	05/20/23 20:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/17/23 10:45	05/20/23 20:14	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/17/23 10:45	05/20/23 20:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*05/17/23 10:45*	*05/20/23 20:14*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*05/17/23 10:45*	*05/20/23 20:14*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/22/23 12:48	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			05/17/23 11:56	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		05/16/23 11:44	05/17/23 02:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/16/23 11:44	05/17/23 02:53	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Job ID: 880-28403-1
SDG: 21-0105-04

Client Sample ID: BF-5
Date Collected: 05/11/23 12:10
Date Received: 05/15/23 08:33

Lab Sample ID: 880-28403-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/16/23 11:44	05/17/23 02:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*120*		*70 - 130*	*05/16/23 11:44*	*05/17/23 02:53*	*1*
o-Terphenyl (Surr)	*89*		*70 - 130*	*05/16/23 11:44*	*05/17/23 02:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**183**		5.00		mg/Kg			05/17/23 13:38	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Job ID: 880-28403-1
SDG: 21-0105-04

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-28403-1	BF-2	79	95										
880-28403-1 MS	BF-2	96	118										
880-28403-1 MSD	BF-2	97	101										
880-28403-2	BF-4	87	88										
880-28403-3	BF-5	96	85										
LCS 880-53575/1-A	Lab Control Sample	89	107										
LCSD 880-53575/2-A	Lab Control Sample Dup	94	116										
MB 880-53575/5-A	Method Blank	88	110										
MB 880-53741/5-A	Method Blank	91	95										

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**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-28403-1	BF-2	122	91										
880-28403-2	BF-4	117	86										
880-28403-3	BF-5	120	89										
LCS 880-53468/2-A	Lab Control Sample	104	83										
LCSD 880-53468/3-A	Lab Control Sample Dup	103	79										
MB 880-53468/1-A	Method Blank	191 S1+	156 S1+										

Surrogate Legend

1CO = 1-Chlorooctane (Surr)

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Job ID: 880-28403-1
SDG: 21-0105-04

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-53575/5-A
Matrix: Solid
Analysis Batch: 53791

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 53575

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/17/23 10:45	05/20/23 19:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/17/23 10:45	05/20/23 19:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/17/23 10:45	05/20/23 19:04	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		05/17/23 10:45	05/20/23 19:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/17/23 10:45	05/20/23 19:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/17/23 10:45	05/20/23 19:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*05/17/23 10:45*	*05/20/23 19:04*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*05/17/23 10:45*	*05/20/23 19:04*	*1*

Lab Sample ID: LCS 880-53575/1-A
Matrix: Solid
Analysis Batch: 53791

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53575

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1303		mg/Kg		130	70 - 130		
Toluene			0.100	0.1118		mg/Kg		112	70 - 130		
Ethylbenzene			0.100	0.09809		mg/Kg		98	70 - 130		
m,p-Xylenes			0.200	0.1903		mg/Kg		95	70 - 130		
o-Xylene			0.100	0.08702		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 880-53575/2-A
Matrix: Solid
Analysis Batch: 53791

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 53575

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1383	*+	mg/Kg		138	70 - 130	6	35
Toluene			0.100	0.1191		mg/Kg		119	70 - 130	6	35
Ethylbenzene			0.100	0.1042		mg/Kg		104	70 - 130	6	35
m,p-Xylenes			0.200	0.2069		mg/Kg		103	70 - 130	8	35
o-Xylene			0.100	0.09573		mg/Kg		96	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

Lab Sample ID: 880-28403-1 MS
Matrix: Solid
Analysis Batch: 53791

Client Sample ID: BF-2
Prep Type: Total/NA
Prep Batch: 53575

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00198	U *+ F1	0.0990	0.1239		mg/Kg		125	70 - 130		
Toluene	<0.00198	U	0.0990	0.1040		mg/Kg		105	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Job ID: 880-28403-1
SDG: 21-0105-04

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

Lab Sample ID: 880-28403-1 MS
Matrix: Solid
Analysis Batch: 53791

Client Sample ID: BF-2
Prep Type: Total/NA
Prep Batch: 53575

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U	0.0990	0.09380		mg/Kg		95	70 - 130
m,p-Xylenes	<0.00396	U	0.198	0.1909		mg/Kg		96	70 - 130
o-Xylene	<0.00198	U	0.0990	0.08821		mg/Kg		89	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*

Lab Sample ID: 880-28403-1 MSD
Matrix: Solid
Analysis Batch: 53791

Client Sample ID: BF-2
Prep Type: Total/NA
Prep Batch: 53575

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U *+ F1	0.100	0.1354	F1	mg/Kg		135	70 - 130	9	35
Toluene	<0.00198	U	0.100	0.1068		mg/Kg		107	70 - 130	3	35
Ethylbenzene	<0.00198	U	0.100	0.1025		mg/Kg		102	70 - 130	9	35
m,p-Xylenes	<0.00396	U	0.200	0.2187		mg/Kg		109	70 - 130	14	35
o-Xylene	<0.00198	U	0.100	0.1006		mg/Kg		100	70 - 130	13	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: MB 880-53741/5-A
Matrix: Solid
Analysis Batch: 53791

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 53741

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/19/23 09:45	05/20/23 07:28	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/19/23 09:45	05/20/23 07:28	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/19/23 09:45	05/20/23 07:28	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		05/19/23 09:45	05/20/23 07:28	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/19/23 09:45	05/20/23 07:28	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/19/23 09:45	05/20/23 07:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*05/19/23 09:45*	*05/20/23 07:28*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/19/23 09:45*	*05/20/23 07:28*	*1*

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

Lab Sample ID: MB 880-53468/1-A
Matrix: Solid
Analysis Batch: 53448

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 53468

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		05/16/23 11:44	05/16/23 19:50	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Job ID: 880-28403-1
SDG: 21-0105-04

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

Lab Sample ID: MB 880-53468/1-A
Matrix: Solid
Analysis Batch: 53448

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 53468

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/16/23 11:44	05/16/23 19:50	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/16/23 11:44	05/16/23 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*191*	*S1+*	*70 - 130*	*05/16/23 11:44*	*05/16/23 19:50*	*1*
o-Terphenyl (Surr)	*156*	*S1+*	*70 - 130*	*05/16/23 11:44*	*05/16/23 19:50*	*1*

Lab Sample ID: LCS 880-53468/2-A
Matrix: Solid
Analysis Batch: 53448

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53468

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	900.4		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	949.6		mg/Kg		95	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*104*		*70 - 130*
o-Terphenyl (Surr)	*83*		*70 - 130*

Lab Sample ID: LCSD 880-53468/3-A
Matrix: Solid
Analysis Batch: 53448

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 53468

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	843.8		mg/Kg		84	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			999	890.3		mg/Kg		89	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*103*		*70 - 130*
o-Terphenyl (Surr)	*79*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-53366/1-A
Matrix: Solid
Analysis Batch: 53577

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			05/17/23 12:50	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Job ID: 880-28403-1
SDG: 21-0105-04

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-53366/2-A
Matrix: Solid
Analysis Batch: 53577

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	250.0		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-53366/3-A
Matrix: Solid
Analysis Batch: 53577

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	250.8		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Job ID: 880-28403-1
SDG: 21-0105-04

GC VOA

Prep Batch: 53575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28403-1	BF-2	Total/NA	Solid	5035	
880-28403-2	BF-4	Total/NA	Solid	5035	
880-28403-3	BF-5	Total/NA	Solid	5035	
MB 880-53575/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-53575/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-53575/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-28403-1 MS	BF-2	Total/NA	Solid	5035	
880-28403-1 MSD	BF-2	Total/NA	Solid	5035	

Prep Batch: 53741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-53741/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 53791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28403-1	BF-2	Total/NA	Solid	8021B	53575
880-28403-2	BF-4	Total/NA	Solid	8021B	53575
880-28403-3	BF-5	Total/NA	Solid	8021B	53575
MB 880-53575/5-A	Method Blank	Total/NA	Solid	8021B	53575
MB 880-53741/5-A	Method Blank	Total/NA	Solid	8021B	53741
LCS 880-53575/1-A	Lab Control Sample	Total/NA	Solid	8021B	53575
LCSD 880-53575/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	53575
880-28403-1 MS	BF-2	Total/NA	Solid	8021B	53575
880-28403-1 MSD	BF-2	Total/NA	Solid	8021B	53575

Analysis Batch: 53892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28403-1	BF-2	Total/NA	Solid	Total BTEX	
880-28403-2	BF-4	Total/NA	Solid	Total BTEX	
880-28403-3	BF-5	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 53448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28403-1	BF-2	Total/NA	Solid	8015B NM	53468
880-28403-2	BF-4	Total/NA	Solid	8015B NM	53468
880-28403-3	BF-5	Total/NA	Solid	8015B NM	53468
MB 880-53468/1-A	Method Blank	Total/NA	Solid	8015B NM	53468
LCS 880-53468/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	53468
LCSD 880-53468/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	53468

Prep Batch: 53468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28403-1	BF-2	Total/NA	Solid	8015NM Prep	
880-28403-2	BF-4	Total/NA	Solid	8015NM Prep	
880-28403-3	BF-5	Total/NA	Solid	8015NM Prep	
MB 880-53468/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-53468/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-53468/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Job ID: 880-28403-1
SDG: 21-0105-04

GC Semi VOA

Analysis Batch: 53590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28403-1	BF-2	Total/NA	Solid	8015 NM	
880-28403-2	BF-4	Total/NA	Solid	8015 NM	
880-28403-3	BF-5	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 53366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28403-1	BF-2	Soluble	Solid	DI Leach	
880-28403-2	BF-4	Soluble	Solid	DI Leach	
880-28403-3	BF-5	Soluble	Solid	DI Leach	
MB 880-53366/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-53366/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-53366/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 53577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28403-1	BF-2	Soluble	Solid	300.0	53366
880-28403-2	BF-4	Soluble	Solid	300.0	53366
880-28403-3	BF-5	Soluble	Solid	300.0	53366
MB 880-53366/1-A	Method Blank	Soluble	Solid	300.0	53366
LCS 880-53366/2-A	Lab Control Sample	Soluble	Solid	300.0	53366
LCSD 880-53366/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	53366

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Job ID: 880-28403-1
SDG: 21-0105-04

Client Sample ID: BF-2

Date Collected: 05/11/23 12:00
Date Received: 05/15/23 08:33

Lab Sample ID: 880-28403-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	53575	05/17/23 10:45	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53791	05/20/23 19:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53892	05/22/23 12:48	SM	EET MID
Total/NA	Analysis	8015 NM		1			53590	05/17/23 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	53468	05/16/23 11:44	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	53448	05/17/23 02:10	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	53366	05/17/23 11:48	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	53577	05/17/23 13:27	CH	EET MID

Client Sample ID: BF-4

Date Collected: 05/11/23 12:05
Date Received: 05/15/23 08:33

Lab Sample ID: 880-28403-2

Matrix: Solid

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	53575	05/17/23 10:45	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53791	05/20/23 19:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53892	05/22/23 12:48	SM	EET MID
Total/NA	Analysis	8015 NM		1			53590	05/17/23 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	53468	05/16/23 11:44	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	53448	05/17/23 02:32	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	53366	05/17/23 11:48	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	53577	05/17/23 13:33	CH	EET MID

Client Sample ID: BF-5

Date Collected: 05/11/23 12:10
Date Received: 05/15/23 08:33

Lab Sample ID: 880-28403-3

Matrix: Solid

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	53575	05/17/23 10:45	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53791	05/20/23 20:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53892	05/22/23 12:48	SM	EET MID
Total/NA	Analysis	8015 NM		1			53590	05/17/23 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	53468	05/16/23 11:44	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	53448	05/17/23 02:53	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	53366	05/17/23 11:48	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	53577	05/17/23 13:38	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Job ID: 880-28403-1
SDG: 21-0105-04

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
Total BTEX		Solid	Total BTEX

Method Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Job ID: 880-28403-1
SDG: 21-0105-04

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
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
5035	Closed System Purge and Trap	SW846	EET MID
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 MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifield

Job ID: 880-28403-1
SDG: 21-0105-04

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-28403-1	BF-2	Solid	05/11/23 12:00	05/15/23 08:33
880-28403-2	BF-4	Solid	05/11/23 12:05	05/15/23 08:33
880-28403-3	BF-5	Solid	05/11/23 12:10	05/15/23 08:33

Released to Imaging: 12/5/2023 3:14:43 PM
Received by OCD: 8/23/2023 10:56:44 AM

28403 No. 2999

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 202
Midland, TX 79701
432-687-0901

Data Reported to

DATE 5-15-23 PAGE 1 OF 1
PO# LAB WORK ORDER#
PROJECT LOCATION OR NAME SD 19 CTB Manifold
LAI PROJECT # 22-0105-04 COLLECTOR KG

TRRP report? ☐ Yes ☒ No

TIME ZONE
Time zone/State MNT/NM

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION HCl	HNO3	H2SO4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES	FIELD NOTES
BE-2		5-11-23	1200	S	1				X		X	202
BF-4		5-11-23	1205	S	1				X		X	
BF-5		5-11-23	1210	S	1				X		X	

ANALYSES: BTEX ☐ MTBE ☐ TPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ GASOLINE MOD 8015 ☐ DIESEL - MOD 8015 ☐ OIL - MOD 8015 ☐ VOC 8260 ☐ SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ 8082 PCBS ☐ TCLP - METALS (RCRA) ☐ TCLP VOC ☐ TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ TOTAL METALS (RCRA) ☐ OTHER LIST ☐ LEAD - TOTAL ☐ D W 200.8 ☐ TCLP ☐ RCI ☐ TOX ☐ FLASHPOINT ☐ TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ pH ☐ HEXAVALENT CHROMIUM ☐ EXPLOSIVES ☐ PECHLORATE ☐ CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐

TOTAL

RELINQUISHED BY (Signature) DATE/TIME 5/15/23 0833 RECEIVED BY (Signature)
RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (Signature)
RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (Signature)
LABORATORY Xenco

880-28403 Chain of Custody

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP 6.9/6.6 THERM# IR8-36
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-28403-1
SDG Number: 21-0105-04

Login Number: 28403
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.	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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 7/27/2023 6:19:17 PM

JOB DESCRIPTION

Salado Draw 19 CTB
SDG NUMBER 22-0105-04

JOB NUMBER

880-31083-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 12/5/2023 3:14:45 PM

my EOL

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

Holly Taylor

Generated
7/27/2023 6:19:17 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Laboratory Job ID: 880-31083-1
SDG: 22-0105-04

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-31083-1
Project/Site: Salado Draw 19 CTB SDG: 22-0105-04

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
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: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

Job ID: 880-31083-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-31083-1

Receipt
The samples were received on 7/24/2023 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

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: C-1, 4.1' (880-31083-1), C-3, 4.1' (880-31083-2), C-4, 4.1' (880-31083-3), C-7, 4.1' (880-31083-4), C-12, 0-4.1' (880-31083-5), C-8, 4.1' (880-31083-6), C-11, 0-4.1' (880-31083-7) and C-10, 0-4.1' (880-31083-8).

GC VOA
Method 8021B: The continuing calibration verification (CCV) associated with batch 880-58304 recovered above the upper control limit for m,p-Xylenes and o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-58304/2).

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-58304 recovered above the upper control limit for Toluene and m,p-Xylenes. An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-58304/33).

Method 8021B: The laboratory control sample (LCS) for preparation batch 880-58376 and analytical batch 880-58304 recovered outside control limits for the following analytes: Benzene. Since only an acceptable LCS or LCSD is required per the method, the LCSD shows recovery for the batch and the data has been qualified and reported.

Method 8021B: Surrogate recovery for the following samples were outside control limits: C-12, 0-4.1' (880-31083-5) and C-8, 4.1' (880-31083-6). 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
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: C-7, 4.1' (880-31083-4). Evidence of matrix interferences is not obvious.

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: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

Client Sample ID: C-1, 4.1'

Date Collected: 07/20/23 10:00
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-1
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199		mg/Kg		07/24/23 13:19	07/25/23 03:24	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/24/23 13:19	07/25/23 03:24	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/24/23 13:19	07/25/23 03:24	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		07/24/23 13:19	07/25/23 03:24	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/24/23 13:19	07/25/23 03:24	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/24/23 13:19	07/25/23 03:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*	*07/24/23 13:19*	*07/25/23 03:24*	*1*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*	*07/24/23 13:19*	*07/25/23 03:24*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/25/23 10:04	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			07/27/23 16:57	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	<50.1	U	50.1		mg/Kg		07/24/23 10:38	07/27/23 14:23	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		07/24/23 10:38	07/27/23 14:23	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		07/24/23 10:38	07/27/23 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*85*		*70 - 130*	*07/24/23 10:38*	*07/27/23 14:23*	*1*
o-Terphenyl (Surr)	*101*		*70 - 130*	*07/24/23 10:38*	*07/27/23 14:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1290**		25.0		mg/Kg			07/24/23 18:18	5

Client Sample ID: C-3, 4.1'

Date Collected: 07/20/23 10:10
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-2
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *+	0.00198		mg/Kg		07/24/23 13:19	07/25/23 03:44	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/24/23 13:19	07/25/23 03:44	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/24/23 13:19	07/25/23 03:44	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		07/24/23 13:19	07/25/23 03:44	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/24/23 13:19	07/25/23 03:44	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		07/24/23 13:19	07/25/23 03:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*07/24/23 13:19*	*07/25/23 03:44*	*1*
1,4-Difluorobenzene (Surr)	*70*		*70 - 130*	*07/24/23 13:19*	*07/25/23 03:44*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

Client Sample ID: C-3, 4.1'

Date Collected: 07/20/23 10:10
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-2
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			07/25/23 10:04	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			07/27/23 16:57	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	<49.8	U	49.8		mg/Kg		07/24/23 10:38	07/27/23 14:45	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		07/24/23 10:38	07/27/23 14:45	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/24/23 10:38	07/27/23 14:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*91*		*70 - 130*	*07/24/23 10:38*	*07/27/23 14:45*	*1*
o-Terphenyl (Surr)	*111*		*70 - 130*	*07/24/23 10:38*	*07/27/23 14:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1830**		24.9		mg/Kg			07/24/23 18:24	5

Client Sample ID: C-4, 4.1'

Date Collected: 07/20/23 10:20
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-3
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *+	0.00201		mg/Kg		07/24/23 13:19	07/25/23 04:05	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/24/23 13:19	07/25/23 04:05	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/24/23 13:19	07/25/23 04:05	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		07/24/23 13:19	07/25/23 04:05	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/24/23 13:19	07/25/23 04:05	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/24/23 13:19	07/25/23 04:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*07/24/23 13:19*	*07/25/23 04:05*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*07/24/23 13:19*	*07/25/23 04:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/25/23 10:04	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			07/27/23 16:57	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	<49.7	U	49.7		mg/Kg		07/24/23 11:35	07/27/23 15:07	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		07/24/23 11:35	07/27/23 15:07	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

Client Sample ID: C-4, 4.1'

Date Collected: 07/20/23 10:20
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		07/24/23 11:35	07/27/23 15:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*99*		*70 - 130*	*07/24/23 11:35*	*07/27/23 15:07*	*1*
o-Terphenyl (Surr)	*117*		*70 - 130*	*07/24/23 11:35*	*07/27/23 15:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**536**		4.97		mg/Kg			07/24/23 18:39	1

Client Sample ID: C-7, 4.1'

Date Collected: 07/21/23 08:00
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-4

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *+	0.00202		mg/Kg		07/24/23 13:19	07/25/23 04:25	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/24/23 13:19	07/25/23 04:25	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/24/23 13:19	07/25/23 04:25	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		07/24/23 13:19	07/25/23 04:25	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/24/23 13:19	07/25/23 04:25	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		07/24/23 13:19	07/25/23 04:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*07/24/23 13:19*	*07/25/23 04:25*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*07/24/23 13:19*	*07/25/23 04:25*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			07/25/23 10:04	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			07/27/23 16:57	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	<50.2	U	50.2		mg/Kg		07/24/23 11:35	07/27/23 15:29	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		07/24/23 11:35	07/27/23 15:29	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		07/24/23 11:35	07/27/23 15:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*198*	*S1+*	*70 - 130*	*07/24/23 11:35*	*07/27/23 15:29*	*1*
o-Terphenyl (Surr)	*231*	*S1+*	*70 - 130*	*07/24/23 11:35*	*07/27/23 15:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**997**		25.2		mg/Kg			07/24/23 18:44	5

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

Client Sample ID: C-12, 0-4.1'

Lab Sample ID: 880-31083-5
Matrix: Solid
Date Collected: 07/21/23 09:00
Date Received: 07/24/23 08:44

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199		mg/Kg		07/24/23 13:19	07/25/23 04:46	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/24/23 13:19	07/25/23 04:46	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/24/23 13:19	07/25/23 04:46	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		07/24/23 13:19	07/25/23 04:46	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/24/23 13:19	07/25/23 04:46	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/24/23 13:19	07/25/23 04:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*07/24/23 13:19*	*07/25/23 04:46*	*1*
1,4-Difluorobenzene (Surr)	*61*	*S1-*	*70 - 130*	*07/24/23 13:19*	*07/25/23 04:46*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/25/23 10:04	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			07/27/23 19:12	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	<50.4	U	50.4		mg/Kg		07/24/23 11:35	07/27/23 16:13	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		07/24/23 11:35	07/27/23 16:13	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		07/24/23 11:35	07/27/23 16:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*97*		*70 - 130*	*07/24/23 11:35*	*07/27/23 16:13*	*1*
o-Terphenyl (Surr)	*115*		*70 - 130*	*07/24/23 11:35*	*07/27/23 16:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**118**		5.00		mg/Kg			07/24/23 18:49	1

Client Sample ID: C-8, 4.1'

Lab Sample ID: 880-31083-6
Matrix: Solid
Date Collected: 07/21/23 08:10
Date Received: 07/24/23 08:44

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *+	0.00198		mg/Kg		07/24/23 13:19	07/25/23 05:06	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/24/23 13:19	07/25/23 05:06	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/24/23 13:19	07/25/23 05:06	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		07/24/23 13:19	07/25/23 05:06	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/24/23 13:19	07/25/23 05:06	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		07/24/23 13:19	07/25/23 05:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*07/24/23 13:19*	*07/25/23 05:06*	*1*
1,4-Difluorobenzene (Surr)	*51*	*S1-*	*70 - 130*	*07/24/23 13:19*	*07/25/23 05:06*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

Client Sample ID: C-8, 4.1'

Date Collected: 07/21/23 08:10
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-6
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			07/25/23 10:04	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			07/27/23 19:12	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		07/24/23 11:35	07/27/23 16:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/24/23 11:35	07/27/23 16:34	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/24/23 11:35	07/27/23 16:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*92*		*70 - 130*	*07/24/23 11:35*	*07/27/23 16:34*	*1*
o-Terphenyl (Surr)	*114*		*70 - 130*	*07/24/23 11:35*	*07/27/23 16:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**576**		5.00		mg/Kg			07/24/23 18:54	1

Client Sample ID: C-11, 0-4.1'

Date Collected: 07/21/23 09:30
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-7
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		07/24/23 13:19	07/25/23 05:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/24/23 13:19	07/25/23 05:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/24/23 13:19	07/25/23 05:26	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		07/24/23 13:19	07/25/23 05:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/24/23 13:19	07/25/23 05:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/24/23 13:19	07/25/23 05:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*07/24/23 13:19*	*07/25/23 05:26*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*07/24/23 13:19*	*07/25/23 05:26*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			07/25/23 10:04	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			07/27/23 19:12	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	<50.3	U	50.3		mg/Kg		07/24/23 11:35	07/27/23 16:56	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		07/24/23 11:35	07/27/23 16:56	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

Client Sample ID: C-11, 0-4.1'

Date Collected: 07/21/23 09:30
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-7
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		07/24/23 11:35	07/27/23 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*93*		*70 - 130*	*07/24/23 11:35*	*07/27/23 16:56*	*1*
o-Terphenyl (Surr)	*112*		*70 - 130*	*07/24/23 11:35*	*07/27/23 16:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**130**		4.99		mg/Kg			07/24/23 18:59	1

Client Sample ID: C-10, 0-4.1'

Date Collected: 07/21/23 10:00
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-8
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *+	0.00202		mg/Kg		07/24/23 13:19	07/25/23 05:47	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/24/23 13:19	07/25/23 05:47	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/24/23 13:19	07/25/23 05:47	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		07/24/23 13:19	07/25/23 05:47	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/24/23 13:19	07/25/23 05:47	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		07/24/23 13:19	07/25/23 05:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*70 - 130*	*07/24/23 13:19*	*07/25/23 05:47*	*1*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*	*07/24/23 13:19*	*07/25/23 05:47*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			07/25/23 10:04	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			07/27/23 19:12	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	<50.5	U	50.5		mg/Kg		07/24/23 11:35	07/27/23 17:18	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		07/24/23 11:35	07/27/23 17:18	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		07/24/23 11:35	07/27/23 17:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*102*		*70 - 130*	*07/24/23 11:35*	*07/27/23 17:18*	*1*
o-Terphenyl (Surr)	*131*	*S1+*	*70 - 130*	*07/24/23 11:35*	*07/27/23 17:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**535**		25.1		mg/Kg			07/24/23 19:05	5

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-31083-1	C-1, 4.1'	75	73
880-31083-2	C-3, 4.1'	83	70
880-31083-3	C-4, 4.1'	100	97
880-31083-4	C-7, 4.1'	96	88
880-31083-5	C-12, 0-4.1'	83	61 S1-
880-31083-6	C-8, 4.1'	92	51 S1-
880-31083-7	C-11, 0-4.1'	93	82
880-31083-8	C-10, 0-4.1'	74	74
LCS 880-58376/1-A	Lab Control Sample	102	113
LCSD 880-58376/2-A	Lab Control Sample Dup	101	108
MB 880-58296/5-A	Method Blank	70	80
MB 880-58376/5-A	Method Blank	70	92

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**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-31083-1	C-1, 4.1'	85	101
880-31083-2	C-3, 4.1'	91	111
880-31083-3	C-4, 4.1'	99	117
880-31083-4	C-7, 4.1'	198 S1+	231 S1+
880-31083-5	C-12, 0-4.1'	97	115
880-31083-6	C-8, 4.1'	92	114
880-31083-7	C-11, 0-4.1'	93	112
880-31083-8	C-10, 0-4.1'	102	131 S1+
LCS 880-58344/2-A	Lab Control Sample	96	123
LCSD 880-58344/3-A	Lab Control Sample Dup	92	112
MB 880-58344/1-A	Method Blank	146 S1+	183 S1+

Surrogate Legend

1CO = 1-Chlorooctane (Surr)

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-58296/5-A
Matrix: Solid
Analysis Batch: 58304

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 58296

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/24/23 08:43	07/24/23 11:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/24/23 08:43	07/24/23 11:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/24/23 08:43	07/24/23 11:40	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		07/24/23 08:43	07/24/23 11:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/24/23 08:43	07/24/23 11:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/24/23 08:43	07/24/23 11:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*70*		*70 - 130*	*07/24/23 08:43*	*07/24/23 11:40*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*07/24/23 08:43*	*07/24/23 11:40*	*1*

Lab Sample ID: MB 880-58376/5-A
Matrix: Solid
Analysis Batch: 58304

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 58376

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/24/23 13:19	07/24/23 22:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/24/23 13:19	07/24/23 22:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/24/23 13:19	07/24/23 22:16	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		07/24/23 13:19	07/24/23 22:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/24/23 13:19	07/24/23 22:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/24/23 13:19	07/24/23 22:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*70*		*70 - 130*	*07/24/23 13:19*	*07/24/23 22:16*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*07/24/23 13:19*	*07/24/23 22:16*	*1*

Lab Sample ID: LCS 880-58376/1-A
Matrix: Solid
Analysis Batch: 58304

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 58376

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1314	*+	mg/Kg		131	70 - 130		
Toluene			0.100	0.1138		mg/Kg		114	70 - 130		
Ethylbenzene			0.100	0.1065		mg/Kg		107	70 - 130		
m,p-Xylenes			0.200	0.2233		mg/Kg		112	70 - 130		
o-Xylene			0.100	0.1222		mg/Kg		122	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*

Lab Sample ID: LCSD 880-58376/2-A
Matrix: Solid
Analysis Batch: 58304

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 58376

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1167		mg/Kg		117	70 - 130	12	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

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

Lab Sample ID: LCSD 880-58376/2-A
Matrix: Solid
Analysis Batch: 58304

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 58376

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09938		mg/Kg		99	70 - 130	14	35
Ethylbenzene			0.100	0.09923		mg/Kg		99	70 - 130	7	35
m,p-Xylenes			0.200	0.2060		mg/Kg		103	70 - 130	8	35
o-Xylene			0.100	0.1043		mg/Kg		104	70 - 130	16	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

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

Lab Sample ID: MB 880-58344/1-A
Matrix: Solid
Analysis Batch: 58605

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 58344

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/24/23 10:38	07/27/23 08:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/24/23 10:38	07/27/23 08:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/24/23 10:38	07/27/23 08:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*146*	*S1+*	*70 - 130*	*07/24/23 10:38*	*07/27/23 08:53*	*1*
o-Terphenyl (Surr)	*183*	*S1+*	*70 - 130*	*07/24/23 10:38*	*07/27/23 08:53*	*1*

Lab Sample ID: LCS 880-58344/2-A
Matrix: Solid
Analysis Batch: 58605

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 58344

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	864.9		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)			1000	948.4		mg/Kg		95	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*96*		*70 - 130*
o-Terphenyl (Surr)	*123*		*70 - 130*

Lab Sample ID: LCSD 880-58344/3-A
Matrix: Solid
Analysis Batch: 58605

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 58344

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	811.0		mg/Kg		81	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	885.4		mg/Kg		89	70 - 130	7	20

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

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

Lab Sample ID: LCSD 880-58344/3-A
Matrix: Solid
Analysis Batch: 58605

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 58344

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	92		70 - 130
o-Terphenyl (Surr)	112		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-58338/1-A
Matrix: Solid
Analysis Batch: 58385

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			07/24/23 16:36	1

Lab Sample ID: LCS 880-58338/2-A
Matrix: Solid
Analysis Batch: 58385

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	233.4		mg/Kg		93	90 - 110		

Lab Sample ID: LCSD 880-58338/3-A
Matrix: Solid
Analysis Batch: 58385

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	234.6		mg/Kg		94	90 - 110	1	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

GC VOA

Prep Batch: 58296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-58296/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 58304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31083-1	C-1, 4.1'	Total/NA	Solid	8021B	58376
880-31083-2	C-3, 4.1'	Total/NA	Solid	8021B	58376
880-31083-3	C-4, 4.1'	Total/NA	Solid	8021B	58376
880-31083-4	C-7, 4.1'	Total/NA	Solid	8021B	58376
880-31083-5	C-12, 0-4.1'	Total/NA	Solid	8021B	58376
880-31083-6	C-8, 4.1'	Total/NA	Solid	8021B	58376
880-31083-7	C-11, 0-4.1'	Total/NA	Solid	8021B	58376
880-31083-8	C-10, 0-4.1'	Total/NA	Solid	8021B	58376
MB 880-58296/5-A	Method Blank	Total/NA	Solid	8021B	58296
MB 880-58376/5-A	Method Blank	Total/NA	Solid	8021B	58376
LCS 880-58376/1-A	Lab Control Sample	Total/NA	Solid	8021B	58376
LCSD 880-58376/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	58376

Prep Batch: 58376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31083-1	C-1, 4.1'	Total/NA	Solid	5035	
880-31083-2	C-3, 4.1'	Total/NA	Solid	5035	
880-31083-3	C-4, 4.1'	Total/NA	Solid	5035	
880-31083-4	C-7, 4.1'	Total/NA	Solid	5035	
880-31083-5	C-12, 0-4.1'	Total/NA	Solid	5035	
880-31083-6	C-8, 4.1'	Total/NA	Solid	5035	
880-31083-7	C-11, 0-4.1'	Total/NA	Solid	5035	
880-31083-8	C-10, 0-4.1'	Total/NA	Solid	5035	
MB 880-58376/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-58376/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-58376/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 58459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31083-1	C-1, 4.1'	Total/NA	Solid	Total BTEX	
880-31083-2	C-3, 4.1'	Total/NA	Solid	Total BTEX	
880-31083-3	C-4, 4.1'	Total/NA	Solid	Total BTEX	
880-31083-4	C-7, 4.1'	Total/NA	Solid	Total BTEX	
880-31083-5	C-12, 0-4.1'	Total/NA	Solid	Total BTEX	
880-31083-6	C-8, 4.1'	Total/NA	Solid	Total BTEX	
880-31083-7	C-11, 0-4.1'	Total/NA	Solid	Total BTEX	
880-31083-8	C-10, 0-4.1'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 58344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31083-1	C-1, 4.1'	Total/NA	Solid	8015NM Prep	
880-31083-2	C-3, 4.1'	Total/NA	Solid	8015NM Prep	
880-31083-3	C-4, 4.1'	Total/NA	Solid	8015NM Prep	
880-31083-4	C-7, 4.1'	Total/NA	Solid	8015NM Prep	
880-31083-5	C-12, 0-4.1'	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

GC Semi VOA (Continued)

Prep Batch: 58344 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31083-6	C-8, 4.1'	Total/NA	Solid	8015NM Prep	
880-31083-7	C-11, 0-4.1'	Total/NA	Solid	8015NM Prep	
880-31083-8	C-10, 0-4.1'	Total/NA	Solid	8015NM Prep	
MB 880-58344/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-58344/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-58344/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 58605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31083-1	C-1, 4.1'	Total/NA	Solid	8015B NM	58344
880-31083-2	C-3, 4.1'	Total/NA	Solid	8015B NM	58344
880-31083-3	C-4, 4.1'	Total/NA	Solid	8015B NM	58344
880-31083-4	C-7, 4.1'	Total/NA	Solid	8015B NM	58344
880-31083-5	C-12, 0-4.1'	Total/NA	Solid	8015B NM	58344
880-31083-6	C-8, 4.1'	Total/NA	Solid	8015B NM	58344
880-31083-7	C-11, 0-4.1'	Total/NA	Solid	8015B NM	58344
880-31083-8	C-10, 0-4.1'	Total/NA	Solid	8015B NM	58344
MB 880-58344/1-A	Method Blank	Total/NA	Solid	8015B NM	58344
LCS 880-58344/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	58344
LCSD 880-58344/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	58344

Analysis Batch: 58676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31083-1	C-1, 4.1'	Total/NA	Solid	8015 NM	
880-31083-2	C-3, 4.1'	Total/NA	Solid	8015 NM	
880-31083-3	C-4, 4.1'	Total/NA	Solid	8015 NM	
880-31083-4	C-7, 4.1'	Total/NA	Solid	8015 NM	
880-31083-5	C-12, 0-4.1'	Total/NA	Solid	8015 NM	
880-31083-6	C-8, 4.1'	Total/NA	Solid	8015 NM	
880-31083-7	C-11, 0-4.1'	Total/NA	Solid	8015 NM	
880-31083-8	C-10, 0-4.1'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 58338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31083-1	C-1, 4.1'	Soluble	Solid	DI Leach	
880-31083-2	C-3, 4.1'	Soluble	Solid	DI Leach	
880-31083-3	C-4, 4.1'	Soluble	Solid	DI Leach	
880-31083-4	C-7, 4.1'	Soluble	Solid	DI Leach	
880-31083-5	C-12, 0-4.1'	Soluble	Solid	DI Leach	
880-31083-6	C-8, 4.1'	Soluble	Solid	DI Leach	
880-31083-7	C-11, 0-4.1'	Soluble	Solid	DI Leach	
880-31083-8	C-10, 0-4.1'	Soluble	Solid	DI Leach	
MB 880-58338/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-58338/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-58338/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 58385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31083-1	C-1, 4.1'	Soluble	Solid	300.0	58338

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

HPLC/IC (Continued)

Analysis Batch: 58385 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31083-2	C-3, 4.1'	Soluble	Solid	300.0	58338
880-31083-3	C-4, 4.1'	Soluble	Solid	300.0	58338
880-31083-4	C-7, 4.1'	Soluble	Solid	300.0	58338
880-31083-5	C-12, 0-4.1'	Soluble	Solid	300.0	58338
880-31083-6	C-8, 4.1'	Soluble	Solid	300.0	58338
880-31083-7	C-11, 0-4.1'	Soluble	Solid	300.0	58338
880-31083-8	C-10, 0-4.1'	Soluble	Solid	300.0	58338
MB 880-58338/1-A	Method Blank	Soluble	Solid	300.0	58338
LCS 880-58338/2-A	Lab Control Sample	Soluble	Solid	300.0	58338
LCSD 880-58338/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	58338

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

Client Sample ID: C-1, 4.1'

Date Collected: 07/20/23 10:00
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-1
Matrix: Solid

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	58376	07/24/23 13:19	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/25/23 03:24	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58459	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58676	07/27/23 16:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	58344	07/24/23 10:38	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 14:23	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	58338	07/24/23 10:00	KS	EET MID
Soluble	Analysis	300.0		5			58385	07/24/23 18:18	CH	EET MID

Client Sample ID: C-3, 4.1'

Date Collected: 07/20/23 10:10
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	58376	07/24/23 13:19	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/25/23 03:44	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58459	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58676	07/27/23 16:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	58344	07/24/23 10:38	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 14:45	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	58338	07/24/23 10:00	KS	EET MID
Soluble	Analysis	300.0		5			58385	07/24/23 18:24	CH	EET MID

Client Sample ID: C-4, 4.1'

Date Collected: 07/20/23 10:20
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	58376	07/24/23 13:19	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/25/23 04:05	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58459	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58676	07/27/23 16:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	58344	07/24/23 11:35	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 15:07	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	58338	07/24/23 10:00	KS	EET MID
Soluble	Analysis	300.0		1			58385	07/24/23 18:39	CH	EET MID

Client Sample ID: C-7, 4.1'

Date Collected: 07/21/23 08:00
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	58376	07/24/23 13:19	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/25/23 04:25	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58459	07/25/23 10:04	SM	EET MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

Client Sample ID: C-7, 4.1'

Lab Sample ID: 880-31083-4
Matrix: Solid
Date Collected: 07/21/23 08:00
Date Received: 07/24/23 08:44

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			58676	07/27/23 16:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	58344	07/24/23 11:35	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 15:29	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	58338	07/24/23 10:00	KS	EET MID
Soluble	Analysis	300.0		5			58385	07/24/23 18:44	CH	EET MID

Client Sample ID: C-12, 0-4.1'

Lab Sample ID: 880-31083-5
Matrix: Solid
Date Collected: 07/21/23 09:00
Date Received: 07/24/23 08:44

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	58376	07/24/23 13:19	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/25/23 04:46	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58459	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58676	07/27/23 19:12	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	58344	07/24/23 11:35	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 16:13	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	58338	07/24/23 10:00	KS	EET MID
Soluble	Analysis	300.0		1			58385	07/24/23 18:49	CH	EET MID

Client Sample ID: C-8, 4.1'

Lab Sample ID: 880-31083-6
Matrix: Solid
Date Collected: 07/21/23 08:10
Date Received: 07/24/23 08:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	58376	07/24/23 13:19	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/25/23 05:06	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58459	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58676	07/27/23 19:12	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	58344	07/24/23 11:35	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 16:34	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	58338	07/24/23 10:00	KS	EET MID
Soluble	Analysis	300.0		1			58385	07/24/23 18:54	CH	EET MID

Client Sample ID: C-11, 0-4.1'

Lab Sample ID: 880-31083-7
Matrix: Solid
Date Collected: 07/21/23 09:30
Date Received: 07/24/23 08:44

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	58376	07/24/23 13:19	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/25/23 05:26	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58459	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58676	07/27/23 19:12	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	58344	07/24/23 11:35	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 16:56	AJ	EET MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

Client Sample ID: C-11, 0-4.1'

Date Collected: 07/21/23 09:30
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-7

Matrix: Solid

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	58338	07/24/23 10:00	KS	EET MID
Soluble	Analysis	300.0		1			58385	07/24/23 18:59	CH	EET MID

Client Sample ID: C-10, 0-4.1'

Date Collected: 07/21/23 10:00
Date Received: 07/24/23 08:44

Lab Sample ID: 880-31083-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	58376	07/24/23 13:19	AJ	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58304	07/25/23 05:47	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58459	07/25/23 10:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			58676	07/27/23 19:12	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	58344	07/24/23 11:35	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58605	07/27/23 17:18	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	58338	07/24/23 10:00	KS	EET MID
Soluble	Analysis	300.0		5			58385	07/24/23 19:05	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

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	T104704400-23-26	06-30-24

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

Method Summary

Client: Larson & Associates, Inc. Job ID: 880-31083-1
Project/Site: Salado Draw 19 CTB SDG: 22-0105-04

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
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
5035	Closed System Purge and Trap	SW846	EET MID
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 MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Salado Draw 19 CTB

Job ID: 880-31083-1
SDG: 22-0105-04

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-31083-1	C-1, 4.1'	Solid	07/20/23 10:00	07/24/23 08:44
880-31083-2	C-3, 4.1'	Solid	07/20/23 10:10	07/24/23 08:44
880-31083-3	C-4, 4.1'	Solid	07/20/23 10:20	07/24/23 08:44
880-31083-4	C-7, 4.1'	Solid	07/21/23 08:00	07/24/23 08:44
880-31083-5	C-12, 0-4.1'	Solid	07/21/23 09:00	07/24/23 08:44
880-31083-6	C-8, 4.1'	Solid	07/21/23 08:10	07/24/23 08:44
880-31083-7	C-11, 0-4.1'	Solid	07/21/23 09:30	07/24/23 08:44
880-31083-8	C-10, 0-4.1'	Solid	07/21/23 10:00	07/24/23 08:44

Released to Imaging: 12/5/2023 3:14:43 PM
Received by OCD: 8/23/2023 10:56:44 AM

31083 No. 3095

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 202
Midland, TX 79701
432-687-0901

DATE 7/24/23 PAGE 1 OF 1
PO# LAB WORK ORDER#
PROJECT LOCATION OR NAME Salado Draw 19 CTB
LAI PROJECT # 22-0105-04 COLLECTOR KB

Data Reported to

TRRP report? ☐ Yes ☒ No

TIME ZONE
Time zone/State MST/NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION HCl	HNO3	H2SO4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐	HOLDPAH ☐	8081 PESTICIDES ☐	8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐	TCLP VOC ☐	TCLP - PEST ☐	HERB ☐	Semi-VOC ☐	TOTAL METALS (RCRA) ☐	OTHER LIST ☐	LEAD - TOTAL ☐	D W 200 8 ☐	TCLP ☐	RCI ☐	TOX ☐	TDS ☐	TSS ☐	FLASHPOINT ☐	pH ☐	% MOISTURE ☐	HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐	CYANIDE ☐	PECHLORATE ☐	CHLORIDES ☒	ANIONS ☐	ALKALINITY ☐	FIELD NOTES
C-1, 4.1		7/20/23	1000	S	4				X	X			X	X	X																								X				202
C-3, 4.1			1010																																								
C-4, 4.1			1020																																								
C-7, 4.1		7/21/23	0800																																								
C-12, 0-4.1'			0900																																								
C-8, 4.1'			0810																																								
C-11, 0-4.1'			0930																																								
C-10, 0-4.1'			1000																																								

880-31083 Chain of Custody

TOTAL

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
[signature]	7/24/23 0844	[signature]
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)

LABORATORY XenCO

TURN AROUND TIME
NORMAL ☐
1 DAY ☒
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP -2.9/-3.2 THERM# IR8
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☐ CARRIER BILL #
☒ HAND DELIVERED

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-31083-1
SDG Number: 22-0105-04

Login Number: 31083
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.	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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 8/1/2023 10:29:37 AM

JOB DESCRIPTION

SD 19 CTB Manifold
SDG NUMBER 22-0105-04

JOB NUMBER

880-31221-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 12/5/2023 3:14:45 PM

my EOL

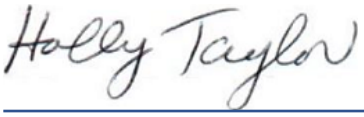
Eurofins Midland

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
8/1/2023 10:29:37 AM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Laboratory Job ID: 880-31221-1
SDG: 22-0105-04

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-31221-1
Project/Site: SD 19 CTB Manifold SDG: 22-0105-04

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
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: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-31221-1
SDG: 22-0105-04

Job ID: 880-31221-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-31221-1

Receipt
The sample was received on 7/26/2023 9:27 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.6º C.

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: BF-1 (880-31221-1).

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

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-58546 and analytical batch 880-58570 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.

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

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

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

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-31221-1
SDG: 22-0105-04

Client Sample ID: BF-1

Date Collected: 07/25/23 12:04
Date Received: 07/26/23 09:27

Lab Sample ID: 880-31221-1

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/26/23 09:29	07/26/23 12:06	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/26/23 09:29	07/26/23 12:06	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/26/23 09:29	07/26/23 12:06	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		07/26/23 09:29	07/26/23 12:06	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/26/23 09:29	07/26/23 12:06	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		07/26/23 09:29	07/26/23 12:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*07/26/23 09:29*	*07/26/23 12:06*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*07/26/23 09:29*	*07/26/23 12:06*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			07/27/23 07:33	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			08/01/23 10:34	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	<50.3	U	50.3		mg/Kg		07/26/23 16:08	07/31/23 11:03	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		07/26/23 16:08	07/31/23 11:03	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		07/26/23 16:08	07/31/23 11:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*129*		*70 - 130*	*07/26/23 16:08*	*07/31/23 11:03*	*1*
o-Terphenyl (Surr)	*109*		*70 - 130*	*07/26/23 16:08*	*07/31/23 11:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**79.0**		4.97		mg/Kg			07/26/23 20:12	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-31221-1
SDG: 22-0105-04

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-31221-1	BF-1	102	100
880-31221-1 MS	BF-1	109	102
880-31221-1 MSD	BF-1	110	100
LCS 880-58524/1-A	Lab Control Sample	107	101
LCSD 880-58524/2-A	Lab Control Sample Dup	122	96
MB 880-58524/5-A	Method Blank	99	89

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**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-31221-1	BF-1	129	109
880-31221-1 MS	BF-1	112	90
880-31221-1 MSD	BF-1	106	84
LCS 880-58586/2-A	Lab Control Sample	93	97
LCSD 880-58586/3-A	Lab Control Sample Dup	92	94
MB 880-58586/1-A	Method Blank	145 S1+	133 S1+

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-31221-1
SDG: 22-0105-04

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-58524/5-A
Matrix: Solid
Analysis Batch: 58520

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 58524

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/26/23 09:29	07/26/23 11:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/26/23 09:29	07/26/23 11:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/26/23 09:29	07/26/23 11:44	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		07/26/23 09:29	07/26/23 11:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/26/23 09:29	07/26/23 11:44	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/26/23 09:29	07/26/23 11:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*07/26/23 09:29*	*07/26/23 11:44*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*07/26/23 09:29*	*07/26/23 11:44*	*1*

Lab Sample ID: LCS 880-58524/1-A
Matrix: Solid
Analysis Batch: 58520

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 58524

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09277		mg/Kg		93	70 - 130		
Toluene			0.100	0.09626		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.08762		mg/Kg		88	70 - 130		
m,p-Xylenes			0.200	0.1674		mg/Kg		84	70 - 130		
o-Xylene			0.100	0.08390		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-58524/2-A
Matrix: Solid
Analysis Batch: 58520

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 58524

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1036		mg/Kg		104	70 - 130	11	35
Toluene			0.100	0.1173		mg/Kg		117	70 - 130	20	35
Ethylbenzene			0.100	0.1118		mg/Kg		112	70 - 130	24	35
m,p-Xylenes			0.200	0.2197		mg/Kg		110	70 - 130	27	35
o-Xylene			0.100	0.1100		mg/Kg		110	70 - 130	27	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 880-31221-1 MS
Matrix: Solid
Analysis Batch: 58520

Client Sample ID: BF-1
Prep Type: Total/NA
Prep Batch: 58524

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U	0.0996	0.1008		mg/Kg		101	70 - 130		
Toluene	<0.00202	U	0.0996	0.1043		mg/Kg		105	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-31221-1
SDG: 22-0105-04

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

Lab Sample ID: 880-31221-1 MS
Matrix: Solid
Analysis Batch: 58520

Client Sample ID: BF-1
Prep Type: Total/NA
Prep Batch: 58524

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.0996	0.09476		mg/Kg		95	70 - 130
m,p-Xylenes	<0.00403	U	0.199	0.1797		mg/Kg		90	70 - 130
o-Xylene	<0.00202	U	0.0996	0.08933		mg/Kg		90	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 880-31221-1 MSD
Matrix: Solid
Analysis Batch: 58520

Client Sample ID: BF-1
Prep Type: Total/NA
Prep Batch: 58524

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0998	0.09942		mg/Kg		100	70 - 130	1	35
Toluene	<0.00202	U	0.0998	0.1063		mg/Kg		107	70 - 130	2	35
Ethylbenzene	<0.00202	U	0.0998	0.09813		mg/Kg		98	70 - 130	3	35
m,p-Xylenes	<0.00403	U	0.200	0.1883		mg/Kg		94	70 - 130	5	35
o-Xylene	<0.00202	U	0.0998	0.09388		mg/Kg		94	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

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

Lab Sample ID: MB 880-58586/1-A
Matrix: Solid
Analysis Batch: 58813

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 58586

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/26/23 16:08	07/31/23 08:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/26/23 16:08	07/31/23 08:28	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/26/23 16:08	07/31/23 08:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*145*	*S1+*	*70 - 130*	*07/26/23 16:08*	*07/31/23 08:28*	*1*
o-Terphenyl (Surr)	*133*	*S1+*	*70 - 130*	*07/26/23 16:08*	*07/31/23 08:28*	*1*

Lab Sample ID: LCS 880-58586/2-A
Matrix: Solid
Analysis Batch: 58813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 58586

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	839.6		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)			1000	824.9		mg/Kg		82	70 - 130

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-31221-1
SDG: 22-0105-04

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

Lab Sample ID: LCS 880-58586/2-A
Matrix: Solid
Analysis Batch: 58813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 58586

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	93		70 - 130
o-Terphenyl (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-58586/3-A
Matrix: Solid
Analysis Batch: 58813

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 58586

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	840.7		mg/Kg		84	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	797.4		mg/Kg		80	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	92		70 - 130
o-Terphenyl (Surr)	94		70 - 130

Lab Sample ID: 880-31221-1 MS
Matrix: Solid
Analysis Batch: 58813

Client Sample ID: BF-1
Prep Type: Total/NA
Prep Batch: 58586

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	1010	768.4		mg/Kg		76	70 - 130
Diesel Range Organics (Over C10-C28)	<50.3	U	1010	1030		mg/Kg		102	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	112		70 - 130
o-Terphenyl (Surr)	90		70 - 130

Lab Sample ID: 880-31221-1 MSD
Matrix: Solid
Analysis Batch: 58813

Client Sample ID: BF-1
Prep Type: Total/NA
Prep Batch: 58586

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	<50.3	U	1010	723.4		mg/Kg		72	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<50.3	U	1010	976.5		mg/Kg		97	70 - 130	5	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane (Surr)	106		70 - 130
o-Terphenyl (Surr)	84		70 - 130

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-31221-1
SDG: 22-0105-04

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-58546/1-A
Matrix: Solid
Analysis Batch: 58570

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			07/26/23 18:05	1

Lab Sample ID: LCS 880-58546/2-A
Matrix: Solid
Analysis Batch: 58570

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	253.7		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-58546/3-A
Matrix: Solid
Analysis Batch: 58570

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	249.2		mg/Kg		100	90 - 110	2	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-31221-1
SDG: 22-0105-04

GC VOA

Analysis Batch: 58520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31221-1	BF-1	Total/NA	Solid	8021B	58524
MB 880-58524/5-A	Method Blank	Total/NA	Solid	8021B	58524
LCS 880-58524/1-A	Lab Control Sample	Total/NA	Solid	8021B	58524
LCSD 880-58524/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	58524
880-31221-1 MS	BF-1	Total/NA	Solid	8021B	58524
880-31221-1 MSD	BF-1	Total/NA	Solid	8021B	58524

Prep Batch: 58524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31221-1	BF-1	Total/NA	Solid	5035	
MB 880-58524/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-58524/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-58524/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-31221-1 MS	BF-1	Total/NA	Solid	5035	
880-31221-1 MSD	BF-1	Total/NA	Solid	5035	

Analysis Batch: 58607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31221-1	BF-1	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 58586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31221-1	BF-1	Total/NA	Solid	8015NM Prep	
MB 880-58586/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-58586/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-58586/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-31221-1 MS	BF-1	Total/NA	Solid	8015NM Prep	
880-31221-1 MSD	BF-1	Total/NA	Solid	8015NM Prep	

Analysis Batch: 58813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31221-1	BF-1	Total/NA	Solid	8015B NM	58586
MB 880-58586/1-A	Method Blank	Total/NA	Solid	8015B NM	58586
LCS 880-58586/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	58586
LCSD 880-58586/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	58586
880-31221-1 MS	BF-1	Total/NA	Solid	8015B NM	58586
880-31221-1 MSD	BF-1	Total/NA	Solid	8015B NM	58586

Analysis Batch: 58991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31221-1	BF-1	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 58546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31221-1	BF-1	Soluble	Solid	DI Leach	
MB 880-58546/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-58546/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-58546/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-31221-1
SDG: 22-0105-04

HPLC/IC

Analysis Batch: 58570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-31221-1	BF-1	Soluble	Solid	300.0	58546
MB 880-58546/1-A	Method Blank	Soluble	Solid	300.0	58546
LCS 880-58546/2-A	Lab Control Sample	Soluble	Solid	300.0	58546
LCSD 880-58546/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	58546

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-31221-1
SDG: 22-0105-04

Client Sample ID: BF-1

Date Collected: 07/25/23 12:04
Date Received: 07/26/23 09:27

Lab Sample ID: 880-31221-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	58524	07/26/23 09:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58520	07/26/23 12:06	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58607	07/27/23 07:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			58991	08/01/23 10:34	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	58586	07/26/23 16:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58813	07/31/23 11:03	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	58546	07/26/23 09:50	KS	EET MID
Soluble	Analysis	300.0		1			58570	07/26/23 20:12	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-31221-1
Project/Site: SD 19 CTB Manifold SDG: 22-0105-04

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	T104704400-23-26	06-30-24

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

Method Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-31221-1
SDG: 22-0105-04

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
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
5035	Closed System Purge and Trap	SW846	EET MID
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 MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Manifold

Job ID: 880-31221-1
SDG: 22-0105-04

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-31221-1	BF-1	Solid	07/25/23 12:04	07/26/23 09:27

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31221

No. 2508

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N Marienfeld, Ste 202
Midland, TX 79701
432-687-0901

DATE: 7/26/2023 PAGE 1 OF 1

PO#: _____ LAB WORK ORDER#: _____

PROJECT LOCATION OR NAME: SD 19 CTB MANIFOLD

LAI PROJECT #: 22-0105-04 COLLECTOR: DSG

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE Time zone/State: MNT / NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐	TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☒	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐	HOLDPAH ☐	8081 PESTICIDES ☐	8151 HERBICIDES ☐	8082 PCBS ☐	TCLP VOC ☐	TCLP - METALS (RCRA) ☐	TCLP - PEST ☐	HERB ☐	Semi-VOC ☐	TOTAL METALS (RCRA) ☐	OTHER LIST ☐	LEAD - TOTAL ☐	D W 200 8 ☐	TCLP ☐	RCI ☐	TOX ☐	FLASHPOINT ☐	TDS ☐	TSS ☐	% MOISTURE ☐	pH ☐	CYANIDE ☐	HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐	PECHLORATE ☐	CHLORIDE ☒	ANIONS ☐	ALKALINITY ☐	FIELD NOTES
BF-1		7/25/23	1204	S	1				X						X	X	X																								X			

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-31221-1
SDG Number: 22-0105-04

Login Number: 31221
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.	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 REPORT

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

Laboratory Job ID: 880-16241-1
Laboratory Sample Delivery Group: 22-0105-09
Client Project/Site: SD 19 CTB Produced Water Release

For:
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
6/29/2022 8:37:38 AM

Holly Taylor, Project Manager
(806)794-1296
Holly.Taylor@et.eurofinsus.com

LINKS
Review your project results through my EOL
Have a Question? Ask The Expert
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.

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produced Water Release

Laboratory Job ID: 880-16241-1
SDG: 22-0105-09

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
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: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

Job ID: 880-16241-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-16241-1

Comments
No additional comments.

Receipt
The samples were received on 6/23/2022 11:06 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 was 0.2º C.

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-28354 and analytical batch 880-28306 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.

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

GC Semi VOA
Method 8015B NM: Surrogate recovery for the following sample was outside control limits: S-4 1' (880-16241-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015B NM: CCV biased low for gasoline range hydrocarbons, however an acceptable CCV was analyzed within the 12 hour window, therefore data was qualified and reported.
(CCV 880-28190/19)

Method 8015B NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-28233 and analytical batch 880-28190 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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

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

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

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

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produced Water Release

Job ID: 880-16241-1
SDG: 22-0105-09

Client Sample ID: S-1 0.5'

Lab Sample ID: 880-16241-1
Matrix: Solid
Date Collected: 06/22/22 11:12
Date Received: 06/23/22 11:06

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		06/24/22 15:16	06/25/22 21:41	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/24/22 15:16	06/25/22 21:41	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/24/22 15:16	06/25/22 21:41	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		06/24/22 15:16	06/25/22 21:41	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/24/22 15:16	06/25/22 21:41	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/24/22 15:16	06/25/22 21:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*06/24/22 15:16*	*06/25/22 21:41*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*06/24/22 15:16*	*06/25/22 21:41*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			06/27/22 12:48	1

Method: 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			06/24/22 10:29	1

Method: 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 *1	49.9		mg/Kg		06/23/22 13:00	06/24/22 02:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/23/22 13:00	06/24/22 02:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/23/22 13:00	06/24/22 02:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*111*		*70 - 130*	*06/23/22 13:00*	*06/24/22 02:32*	*1*
o-Terphenyl (Surr)	*115*		*70 - 130*	*06/23/22 13:00*	*06/24/22 02:32*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**69.2**		4.97		mg/Kg			06/28/22 06:40	1

Client Sample ID: S-1 1'

Lab Sample ID: 880-16241-2
Matrix: Solid
Date Collected: 06/22/22 11:14
Date Received: 06/23/22 11:06

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/25/22 22:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/25/22 22:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/25/22 22:02	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		06/24/22 15:16	06/25/22 22:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/25/22 22:02	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/24/22 15:16	06/25/22 22:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*06/24/22 15:16*	*06/25/22 22:02*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*06/24/22 15:16*	*06/25/22 22:02*	*1*

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

Client Sample ID: S-1 1'
Lab Sample ID: 880-16241-2
Date Collected: 06/22/22 11:14 **Matrix: Solid**
Date Received: 06/23/22 11:06

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			06/27/22 12:48	1

Method: 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			06/24/22 10:29	1

Method: 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 *1	50.0		mg/Kg		06/23/22 13:00	06/24/22 02:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/23/22 13:00	06/24/22 02:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/23/22 13:00	06/24/22 02:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*115*		*70 - 130*	*06/23/22 13:00*	*06/24/22 02:53*	*1*
o-Terphenyl (Surr)	*123*		*70 - 130*	*06/23/22 13:00*	*06/24/22 02:53*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**58.8**		4.98		mg/Kg			06/28/22 06:50	1

Client Sample ID: S-2 0.5'
Lab Sample ID: 880-16241-3
Date Collected: 06/22/22 11:16 **Matrix: Solid**
Date Received: 06/23/22 11:06

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		06/24/22 15:16	06/25/22 22:22	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/24/22 15:16	06/25/22 22:22	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/24/22 15:16	06/25/22 22:22	1
m,p-Xylenes	<0.00397	U	0.00397		mg/Kg		06/24/22 15:16	06/25/22 22:22	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/24/22 15:16	06/25/22 22:22	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		06/24/22 15:16	06/25/22 22:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*06/24/22 15:16*	*06/25/22 22:22*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*06/24/22 15:16*	*06/25/22 22:22*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			06/27/22 12:48	1

Method: 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			06/24/22 10:29	1

Method: 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 *1	50.0		mg/Kg		06/23/22 13:00	06/24/22 03:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/23/22 13:00	06/24/22 03:14	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

Client Sample ID: S-2 0.5' Lab Sample ID: 880-16241-3
Date Collected: 06/22/22 11:16 **Matrix: Solid**
Date Received: 06/23/22 11:06

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/23/22 13:00	06/24/22 03:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*115*		*70 - 130*	*06/23/22 13:00*	*06/24/22 03:14*	*1*
o-Terphenyl (Surr)	*121*		*70 - 130*	*06/23/22 13:00*	*06/24/22 03:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**95.2**		4.99		mg/Kg			06/28/22 06:59	1

Client Sample ID: S-2 1' Lab Sample ID: 880-16241-4
Date Collected: 06/22/22 11:18 **Matrix: Solid**
Date Received: 06/23/22 11:06

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/24/22 15:16	06/25/22 22:43	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/24/22 15:16	06/25/22 22:43	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/24/22 15:16	06/25/22 22:43	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		06/24/22 15:16	06/25/22 22:43	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/24/22 15:16	06/25/22 22:43	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/24/22 15:16	06/25/22 22:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*06/24/22 15:16*	*06/25/22 22:43*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*06/24/22 15:16*	*06/25/22 22:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/27/22 12:48	1

Method: 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			06/24/22 10:29	1

Method: 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 *1	49.9		mg/Kg		06/23/22 13:00	06/24/22 03:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/23/22 13:00	06/24/22 03:35	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/23/22 13:00	06/24/22 03:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*110*		*70 - 130*	*06/23/22 13:00*	*06/24/22 03:35*	*1*
o-Terphenyl (Surr)	*115*		*70 - 130*	*06/23/22 13:00*	*06/24/22 03:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**58.1**		4.98		mg/Kg			06/28/22 07:26	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produced Water Release

Job ID: 880-16241-1
SDG: 22-0105-09

Client Sample ID: S-3 0.5'

Date Collected: 06/22/22 11:20
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-5

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/25/22 23:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/25/22 23:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/25/22 23:03	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		06/24/22 15:16	06/25/22 23:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/25/22 23:03	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/24/22 15:16	06/25/22 23:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*06/24/22 15:16*	*06/25/22 23:03*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*06/24/22 15:16*	*06/25/22 23:03*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			06/27/22 12:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			06/24/22 10:29	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	49.8		mg/Kg		06/23/22 13:00	06/24/22 03:56	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/23/22 13:00	06/24/22 03:56	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/23/22 13:00	06/24/22 03:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*109*		*70 - 130*	*06/23/22 13:00*	*06/24/22 03:56*	*1*
o-Terphenyl (Surr)	*112*		*70 - 130*	*06/23/22 13:00*	*06/24/22 03:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**31.6**		5.04		mg/Kg			06/28/22 07:36	1

Client Sample ID: S-3 1'

Date Collected: 06/22/22 11:22
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-6

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		06/24/22 15:16	06/25/22 23:23	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/24/22 15:16	06/25/22 23:23	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/24/22 15:16	06/25/22 23:23	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		06/24/22 15:16	06/25/22 23:23	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/24/22 15:16	06/25/22 23:23	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/24/22 15:16	06/25/22 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*06/24/22 15:16*	*06/25/22 23:23*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*06/24/22 15:16*	*06/25/22 23:23*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produced Water Release

Job ID: 880-16241-1
SDG: 22-0105-09

Client Sample ID: S-3 1'

Date Collected: 06/22/22 11:22
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-6

Matrix: Solid

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			06/27/22 12:48	1

Method: 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			06/24/22 10:29	1

Method: 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 *1	50.0		mg/Kg		06/23/22 13:00	06/24/22 04:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/23/22 13:00	06/24/22 04:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/23/22 13:00	06/24/22 04:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*105*		*70 - 130*	*06/23/22 13:00*	*06/24/22 04:17*	*1*
o-Terphenyl (Surr)	*108*		*70 - 130*	*06/23/22 13:00*	*06/24/22 04:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**27.1**		5.04		mg/Kg			06/28/22 08:03	1

Client Sample ID: S-4 0.5'

Date Collected: 06/22/22 11:24
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-7

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/24/22 15:16	06/25/22 23:44	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/24/22 15:16	06/25/22 23:44	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/24/22 15:16	06/25/22 23:44	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		06/24/22 15:16	06/25/22 23:44	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/24/22 15:16	06/25/22 23:44	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/24/22 15:16	06/25/22 23:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*06/24/22 15:16*	*06/25/22 23:44*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*06/24/22 15:16*	*06/25/22 23:44*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/27/22 12:48	1

Method: 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			06/24/22 10:29	1

Method: 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 *1	49.9		mg/Kg		06/23/22 13:00	06/24/22 04:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/23/22 13:00	06/24/22 04:38	1

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

Client Sample ID: S-4 0.5' Lab Sample ID: 880-16241-7
Date Collected: 06/22/22 11:24 **Matrix: Solid**
Date Received: 06/23/22 11:06

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/23/22 13:00	06/24/22 04:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*119*		*70 - 130*	*06/23/22 13:00*	*06/24/22 04:38*	*1*
o-Terphenyl (Surr)	*122*		*70 - 130*	*06/23/22 13:00*	*06/24/22 04:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**919**		24.9		mg/Kg			06/28/22 08:13	5

Client Sample ID: S-4 1' Lab Sample ID: 880-16241-8
Date Collected: 06/22/22 11:26 **Matrix: Solid**
Date Received: 06/23/22 11:06

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/24/22 15:16	06/26/22 00:04	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/24/22 15:16	06/26/22 00:04	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/24/22 15:16	06/26/22 00:04	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		06/24/22 15:16	06/26/22 00:04	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/24/22 15:16	06/26/22 00:04	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/24/22 15:16	06/26/22 00:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*06/24/22 15:16*	*06/26/22 00:04*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*06/24/22 15:16*	*06/26/22 00:04*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/27/22 12:48	1

Method: 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			06/24/22 10:29	1

Method: 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 *1	50.0		mg/Kg		06/23/22 13:00	06/24/22 04:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/23/22 13:00	06/24/22 04:59	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/23/22 13:00	06/24/22 04:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*126*		*70 - 130*	*06/23/22 13:00*	*06/24/22 04:59*	*1*
o-Terphenyl (Surr)	*134*	*S1+*	*70 - 130*	*06/23/22 13:00*	*06/24/22 04:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**199**		25.3		mg/Kg			06/28/22 08:22	5

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produced Water Release

Job ID: 880-16241-1
SDG: 22-0105-09

Client Sample ID: S-5 0.5'

Date Collected: 06/22/22 10:55
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-9

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/24/22 15:16	06/26/22 00:25	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/24/22 15:16	06/26/22 00:25	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/24/22 15:16	06/26/22 00:25	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		06/24/22 15:16	06/26/22 00:25	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/24/22 15:16	06/26/22 00:25	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		06/24/22 15:16	06/26/22 00:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*06/24/22 15:16*	*06/26/22 00:25*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*06/24/22 15:16*	*06/26/22 00:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			06/27/22 12:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			06/24/22 10:29	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	49.8		mg/Kg		06/23/22 13:00	06/24/22 05:20	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/23/22 13:00	06/24/22 05:20	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/23/22 13:00	06/24/22 05:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*103*		*70 - 130*	*06/23/22 13:00*	*06/24/22 05:20*	*1*
o-Terphenyl (Surr)	*108*		*70 - 130*	*06/23/22 13:00*	*06/24/22 05:20*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**0.114**		0.00502		mg/Kg			06/28/22 08:31	1

Client Sample ID: S-6 0.5'

Date Collected: 06/22/22 11:00
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-10

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/26/22 00:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/26/22 00:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/26/22 00:45	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		06/24/22 15:16	06/26/22 00:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/26/22 00:45	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/24/22 15:16	06/26/22 00:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*06/24/22 15:16*	*06/26/22 00:45*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*06/24/22 15:16*	*06/26/22 00:45*	*1*

Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

Client Sample ID: S-6 0.5'
Lab Sample ID: 880-16241-10
Date Collected: 06/22/22 11:00 **Matrix: Solid**
Date Received: 06/23/22 11:06

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			06/27/22 12:48	1

Method: 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			06/24/22 10:29	1

Method: 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		06/23/22 16:11	06/24/22 02:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/23/22 16:11	06/24/22 02:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/23/22 16:11	06/24/22 02:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*113*		*70 - 130*	*06/23/22 16:11*	*06/24/22 02:28*	*1*
o-Terphenyl (Surr)	*121*		*70 - 130*	*06/23/22 16:11*	*06/24/22 02:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**30.0**		5.03		mg/Kg			06/28/22 08:40	1

Client Sample ID: S-7 0.5'
Lab Sample ID: 880-16241-11
Date Collected: 06/22/22 11:05 **Matrix: Solid**
Date Received: 06/23/22 11:06

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/22 14:13	06/25/22 14:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/22 14:13	06/25/22 14:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/22 14:13	06/25/22 14:02	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		06/24/22 14:13	06/25/22 14:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/22 14:13	06/25/22 14:02	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/24/22 14:13	06/25/22 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*06/24/22 14:13*	*06/25/22 14:02*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*06/24/22 14:13*	*06/25/22 14:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			06/27/22 12:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			06/24/22 10:29	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/23/22 16:11	06/24/22 02:48	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/23/22 16:11	06/24/22 02:48	1

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Client Sample Results

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

Client Sample ID: S-7 0.5'
Lab Sample ID: 880-16241-11
Date Collected: 06/22/22 11:05
Matrix: Solid
Date Received: 06/23/22 11:06

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/23/22 16:11	06/24/22 02:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*123*		*70 - 130*	*06/23/22 16:11*	*06/24/22 02:48*	*1*
o-Terphenyl (Surr)	*134*	*S1+*	*70 - 130*	*06/23/22 16:11*	*06/24/22 02:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**218**		25.0		mg/Kg			06/28/22 08:49	5

Client Sample ID: S-8 0.5'
Lab Sample ID: 880-16241-12
Date Collected: 06/22/22 11:10
Matrix: Solid
Date Received: 06/23/22 11:06

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/22 14:13	06/25/22 14:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/22 14:13	06/25/22 14:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/22 14:13	06/25/22 14:23	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		06/24/22 14:13	06/25/22 14:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/22 14:13	06/25/22 14:23	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/24/22 14:13	06/25/22 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*06/24/22 14:13*	*06/25/22 14:23*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*06/24/22 14:13*	*06/25/22 14:23*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			06/27/22 12:48	1

Method: 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			06/24/22 10:29	1

Method: 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		06/23/22 16:11	06/24/22 03:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/23/22 16:11	06/24/22 03:08	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/23/22 16:11	06/24/22 03:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*110*		*70 - 130*	*06/23/22 16:11*	*06/24/22 03:08*	*1*
o-Terphenyl (Surr)	*120*		*70 - 130*	*06/23/22 16:11*	*06/24/22 03:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**48.1**		4.99		mg/Kg			06/28/22 08:59	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produced Water Release

Job ID: 880-16241-1
SDG: 22-0105-09

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-16241-1	S-1 0.5'	111	94
880-16241-1 MS	S-1 0.5'	111	100
880-16241-1 MSD	S-1 0.5'	110	99
880-16241-2	S-1 1'	112	93
880-16241-3	S-2 0.5'	117	90
880-16241-4	S-2 1'	116	89
880-16241-5	S-3 0.5'	112	88
880-16241-6	S-3 1'	119	90
880-16241-7	S-4 0.5'	117	89
880-16241-8	S-4 1'	116	88
880-16241-9	S-5 0.5'	118	89
880-16241-10	S-6 0.5'	116	87
880-16241-11	S-7 0.5'	113	97
880-16241-12	S-8 0.5'	112	92
880-16282-A-1-D MS	Matrix Spike	119	99
880-16282-A-1-E MSD	Matrix Spike Duplicate	124	84
LCS 880-28354/1-A	Lab Control Sample	127	106
LCS 880-28363/1-A	Lab Control Sample	110	98
LCSD 880-28354/2-A	Lab Control Sample Dup	110	99
LCSD 880-28363/2-A	Lab Control Sample Dup	107	100
MB 880-28306/39	Method Blank	101	90
MB 880-28354/5-A	Method Blank	102	87
MB 880-28363/5-A	Method Blank	101	89

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**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-16239-A-21-C MS	Matrix Spike	111	102
880-16239-A-21-D MSD	Matrix Spike Duplicate	113	105
880-16241-1	S-1 0.5'	111	115
880-16241-2	S-1 1'	115	123
880-16241-3	S-2 0.5'	115	121
880-16241-4	S-2 1'	110	115
880-16241-5	S-3 0.5'	109	112
880-16241-6	S-3 1'	105	108
880-16241-7	S-4 0.5'	119	122
880-16241-8	S-4 1'	126	134 S1+
880-16241-9	S-5 0.5'	103	108
880-16241-10	S-6 0.5'	113	121
880-16241-11	S-7 0.5'	123	134 S1+
880-16241-12	S-8 0.5'	110	120
890-2448-A-1-H MS	Matrix Spike	96	95
890-2448-A-1-I MSD	Matrix Spike Duplicate	101	94

Surrogate Summary

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

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)								
LCS 880-28233/2-A	Lab Control Sample	93	98								
LCS 880-28272/2-A	Lab Control Sample	96	96								
LCSD 880-28233/3-A	Lab Control Sample Dup	101	106								
LCSD 880-28272/3-A	Lab Control Sample Dup	102	105								
MB 880-28233/1-A	Method Blank	103	106								
MB 880-28272/1-A	Method Blank	103	112								

Surrogate Legend

1CO = 1-Chlorooctane (Surr)

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produced Water Release

Job ID: 880-16241-1
SDG: 22-0105-09

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-28306/39
Matrix: Solid
Analysis Batch: 28306

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			06/24/22 22:17	1
Toluene	<0.00200	U	0.00200		mg/Kg			06/24/22 22:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			06/24/22 22:17	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg			06/24/22 22:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			06/24/22 22:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			06/24/22 22:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*06/24/22 22:17*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*		*06/24/22 22:17*	*1*

Lab Sample ID: MB 880-28354/5-A
Matrix: Solid
Analysis Batch: 28306

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28354

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/22 14:13	06/25/22 08:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/22 14:13	06/25/22 08:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/22 14:13	06/25/22 08:52	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		06/24/22 14:13	06/25/22 08:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/22 14:13	06/25/22 08:52	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/24/22 14:13	06/25/22 08:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*06/24/22 14:13*	*06/25/22 08:52*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*06/24/22 14:13*	*06/25/22 08:52*	*1*

Lab Sample ID: LCS 880-28354/1-A
Matrix: Solid
Analysis Batch: 28306

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28354

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.07094		mg/Kg		71	70 - 130		
Toluene			0.100	0.07028		mg/Kg		70	70 - 130		
Ethylbenzene			0.100	0.07386		mg/Kg		74	70 - 130		
m,p-Xylenes			0.200	0.1543		mg/Kg		77	70 - 130		
o-Xylene			0.100	0.08210		mg/Kg		82	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-28354/2-A
Matrix: Solid
Analysis Batch: 28306

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28354

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09324		mg/Kg		93	70 - 130	27	35

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

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

Lab Sample ID: LCSD 880-28354/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28306 **Prep Batch: 28354**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09103		mg/Kg		91	70 - 130	26	35
Ethylbenzene			0.100	0.09529		mg/Kg		95	70 - 130	25	35
m,p-Xylenes			0.200	0.1953		mg/Kg		98	70 - 130	23	35
o-Xylene			0.100	0.1001		mg/Kg		100	70 - 130	20	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-16282-A-1-D MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28306 **Prep Batch: 28354**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F2 F1	0.100	0.07260		mg/Kg		72	70 - 130
Toluene	<0.00201	U F2 F1	0.100	0.06776	F1	mg/Kg		66	70 - 130
Ethylbenzene	<0.00201	U F2 F1	0.100	0.06790	F1	mg/Kg		66	70 - 130
m,p-Xylenes	<0.00402	U F2 F1	0.200	0.1297	F1	mg/Kg		63	70 - 130
o-Xylene	<0.00201	U F2 F1	0.100	0.06945	F1	mg/Kg		68	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-16282-A-1-E MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28306 **Prep Batch: 28354**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F2 F1	0.0990	0.03163	F2 F1	mg/Kg		31	70 - 130	79	35
Toluene	<0.00201	U F2 F1	0.0990	0.03840	F2 F1	mg/Kg		38	70 - 130	55	35
Ethylbenzene	<0.00201	U F2 F1	0.0990	0.04227	F2 F1	mg/Kg		41	70 - 130	47	35
m,p-Xylenes	<0.00402	U F2 F1	0.198	0.08106	F2 F1	mg/Kg		39	70 - 130	46	35
o-Xylene	<0.00201	U F2 F1	0.0990	0.04747	F2 F1	mg/Kg		47	70 - 130	38	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: MB 880-28363/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28398 **Prep Batch: 28363**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/25/22 21:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/25/22 21:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/25/22 21:19	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		06/24/22 15:16	06/25/22 21:19	1

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

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

Lab Sample ID: MB 880-28363/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28398 **Prep Batch: 28363**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/22 15:16	06/25/22 21:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/24/22 15:16	06/25/22 21:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*06/24/22 15:16*	*06/25/22 21:19*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*06/24/22 15:16*	*06/25/22 21:19*	*1*

Lab Sample ID: LCS 880-28363/1-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28398 **Prep Batch: 28363**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1136		mg/Kg		114	70 - 130		
Toluene			0.100	0.1103		mg/Kg		110	70 - 130		
Ethylbenzene			0.100	0.1153		mg/Kg		115	70 - 130		
m,p-Xylenes			0.200	0.2346		mg/Kg		117	70 - 130		
o-Xylene			0.100	0.1196		mg/Kg		120	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-28363/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28398 **Prep Batch: 28363**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1099		mg/Kg		110	70 - 130	3	35
Toluene			0.100	0.1041		mg/Kg		104	70 - 130	6	35
Ethylbenzene			0.100	0.1082		mg/Kg		108	70 - 130	6	35
m,p-Xylenes			0.200	0.2204		mg/Kg		110	70 - 130	6	35
o-Xylene			0.100	0.1110		mg/Kg		111	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 880-16241-1 MS **Client Sample ID: S-1 0.5'**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28398 **Prep Batch: 28363**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.1028		mg/Kg		103	70 - 130		
Toluene	<0.00201	U	0.100	0.09858		mg/Kg		98	70 - 130		
Ethylbenzene	<0.00201	U	0.100	0.1012		mg/Kg		101	70 - 130		
m,p-Xylenes	<0.00402	U	0.200	0.2077		mg/Kg		104	70 - 130		
o-Xylene	<0.00201	U	0.100	0.1035		mg/Kg		103	70 - 130		

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

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

Lab Sample ID: 880-16241-1 MS **Client Sample ID: S-1 0.5'**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28398 **Prep Batch: 28363**

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 880-16241-1 MSD **Client Sample ID: S-1 0.5'**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28398 **Prep Batch: 28363**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0996	0.1015		mg/Kg		102	70 - 130	1	35
Toluene	<0.00201	U	0.0996	0.09871		mg/Kg		99	70 - 130	0	35
Ethylbenzene	<0.00201	U	0.0996	0.1014		mg/Kg		102	70 - 130	0	35
m,p-Xylenes	<0.00402	U	0.199	0.2067		mg/Kg		104	70 - 130	0	35
o-Xylene	<0.00201	U	0.0996	0.1030		mg/Kg		103	70 - 130	0	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

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

Lab Sample ID: MB 880-28233/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28190 **Prep Batch: 28233**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/23/22 11:40	06/23/22 20:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/23/22 11:40	06/23/22 20:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/23/22 11:40	06/23/22 20:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	103		70 - 130	06/23/22 11:40	06/23/22 20:34	1
o-Terphenyl (Surr)	106		70 - 130	06/23/22 11:40	06/23/22 20:34	1

Lab Sample ID: LCS 880-28233/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28190 **Prep Batch: 28233**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1169		mg/Kg		117	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	889.0		mg/Kg		89	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	93		70 - 130
o-Terphenyl (Surr)	98		70 - 130

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

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

Lab Sample ID: LCSD 880-28233/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28190 **Prep Batch: 28233**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	832.6	*1	mg/Kg		83	70 - 130	34	20
Diesel Range Organics (Over C10-C28)			1000	925.0		mg/Kg		92	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*101*		*70 - 130*
o-Terphenyl (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-2448-A-1-H MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28190 **Prep Batch: 28233**

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 *1	998	975.2		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	915.8		mg/Kg		89	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*96*		*70 - 130*
o-Terphenyl (Surr)	*95*		*70 - 130*

Lab Sample ID: 890-2448-A-1-I MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28190 **Prep Batch: 28233**

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 *1	999	1048		mg/Kg		101	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	942.4		mg/Kg		92	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*101*		*70 - 130*
o-Terphenyl (Surr)	*94*		*70 - 130*

Lab Sample ID: MB 880-28272/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28196 **Prep Batch: 28272**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/23/22 16:11	06/23/22 20:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/23/22 16:11	06/23/22 20:12	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/23/22 16:11	06/23/22 20:12	1

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

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

Lab Sample ID: MB 880-28272/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28196 **Prep Batch: 28272**

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	103		70 - 130	06/23/22 16:11	06/23/22 20:12	1
o-Terphenyl (Surr)	112		70 - 130	06/23/22 16:11	06/23/22 20:12	1

Lab Sample ID: LCS 880-28272/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28196 **Prep Batch: 28272**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1098		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	863.7		mg/Kg		86	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	96		70 - 130
o-Terphenyl (Surr)	96		70 - 130

Lab Sample ID: LCSD 880-28272/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28196 **Prep Batch: 28272**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1083		mg/Kg		108	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	975.6		mg/Kg		98	70 - 130	12	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	102		70 - 130
o-Terphenyl (Surr)	105		70 - 130

Lab Sample ID: 880-16239-A-21-C MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 28196 **Prep Batch: 28272**

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	998	1252		mg/Kg		125	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	998	878.5		mg/Kg		88	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	111		70 - 130
o-Terphenyl (Surr)	102		70 - 130

QC Sample Results

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

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

Lab Sample ID: 880-16239-A-21-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 28196 — **Prep Batch: 28272**

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	999	1256		mg/Kg		126	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	902.1		mg/Kg		90	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*113*		*70 - 130*
o-Terphenyl (Surr)	*105*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-28275/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 28540

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/28/22 04:22	1

Lab Sample ID: LCS 880-28275/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 28540

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	261.6		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-28275/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 28540

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	261.3		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 880-16241-3 MS — **Client Sample ID: S-2 0.5'**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 28540

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	95.2		250	366.4		mg/Kg		109	90 - 110		

Lab Sample ID: 880-16241-3 MSD — **Client Sample ID: S-2 0.5'**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 28540

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	95.2		250	366.5		mg/Kg		109	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

GC VOA

Analysis Batch: 28306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16241-11	S-7 0.5'	Total/NA	Solid	8021B	28354
880-16241-12	S-8 0.5'	Total/NA	Solid	8021B	28354
MB 880-28306/39	Method Blank	Total/NA	Solid	8021B	
MB 880-28354/5-A	Method Blank	Total/NA	Solid	8021B	28354
LCS 880-28354/1-A	Lab Control Sample	Total/NA	Solid	8021B	28354
LCSD 880-28354/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	28354
880-16282-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	28354
880-16282-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	28354

Prep Batch: 28354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16241-11	S-7 0.5'	Total/NA	Solid	5035	
880-16241-12	S-8 0.5'	Total/NA	Solid	5035	
MB 880-28354/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-28354/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-28354/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-16282-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-16282-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 28363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16241-1	S-1 0.5'	Total/NA	Solid	5035	
880-16241-2	S-1 1'	Total/NA	Solid	5035	
880-16241-3	S-2 0.5'	Total/NA	Solid	5035	
880-16241-4	S-2 1'	Total/NA	Solid	5035	
880-16241-5	S-3 0.5'	Total/NA	Solid	5035	
880-16241-6	S-3 1'	Total/NA	Solid	5035	
880-16241-7	S-4 0.5'	Total/NA	Solid	5035	
880-16241-8	S-4 1'	Total/NA	Solid	5035	
880-16241-9	S-5 0.5'	Total/NA	Solid	5035	
880-16241-10	S-6 0.5'	Total/NA	Solid	5035	
MB 880-28363/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-28363/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-28363/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-16241-1 MS	S-1 0.5'	Total/NA	Solid	5035	
880-16241-1 MSD	S-1 0.5'	Total/NA	Solid	5035	

Analysis Batch: 28398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16241-1	S-1 0.5'	Total/NA	Solid	8021B	28363
880-16241-2	S-1 1'	Total/NA	Solid	8021B	28363
880-16241-3	S-2 0.5'	Total/NA	Solid	8021B	28363
880-16241-4	S-2 1'	Total/NA	Solid	8021B	28363
880-16241-5	S-3 0.5'	Total/NA	Solid	8021B	28363
880-16241-6	S-3 1'	Total/NA	Solid	8021B	28363
880-16241-7	S-4 0.5'	Total/NA	Solid	8021B	28363
880-16241-8	S-4 1'	Total/NA	Solid	8021B	28363
880-16241-9	S-5 0.5'	Total/NA	Solid	8021B	28363
880-16241-10	S-6 0.5'	Total/NA	Solid	8021B	28363
MB 880-28363/5-A	Method Blank	Total/NA	Solid	8021B	28363
LCS 880-28363/1-A	Lab Control Sample	Total/NA	Solid	8021B	28363

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

GC VOA (Continued)

Analysis Batch: 28398 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-28363/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	28363
880-16241-1 MS	S-1 0.5'	Total/NA	Solid	8021B	28363
880-16241-1 MSD	S-1 0.5'	Total/NA	Solid	8021B	28363

Analysis Batch: 28470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16241-1	S-1 0.5'	Total/NA	Solid	Total BTEX	
880-16241-2	S-1 1'	Total/NA	Solid	Total BTEX	
880-16241-3	S-2 0.5'	Total/NA	Solid	Total BTEX	
880-16241-4	S-2 1'	Total/NA	Solid	Total BTEX	
880-16241-5	S-3 0.5'	Total/NA	Solid	Total BTEX	
880-16241-6	S-3 1'	Total/NA	Solid	Total BTEX	
880-16241-7	S-4 0.5'	Total/NA	Solid	Total BTEX	
880-16241-8	S-4 1'	Total/NA	Solid	Total BTEX	
880-16241-9	S-5 0.5'	Total/NA	Solid	Total BTEX	
880-16241-10	S-6 0.5'	Total/NA	Solid	Total BTEX	
880-16241-11	S-7 0.5'	Total/NA	Solid	Total BTEX	
880-16241-12	S-8 0.5'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 28190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16241-1	S-1 0.5'	Total/NA	Solid	8015B NM	28233
880-16241-2	S-1 1'	Total/NA	Solid	8015B NM	28233
880-16241-3	S-2 0.5'	Total/NA	Solid	8015B NM	28233
880-16241-4	S-2 1'	Total/NA	Solid	8015B NM	28233
880-16241-5	S-3 0.5'	Total/NA	Solid	8015B NM	28233
880-16241-6	S-3 1'	Total/NA	Solid	8015B NM	28233
880-16241-7	S-4 0.5'	Total/NA	Solid	8015B NM	28233
880-16241-8	S-4 1'	Total/NA	Solid	8015B NM	28233
880-16241-9	S-5 0.5'	Total/NA	Solid	8015B NM	28233
MB 880-28233/1-A	Method Blank	Total/NA	Solid	8015B NM	28233
LCS 880-28233/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	28233
LCSD 880-28233/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	28233
890-2448-A-1-H MS	Matrix Spike	Total/NA	Solid	8015B NM	28233
890-2448-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	28233

Analysis Batch: 28196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16241-10	S-6 0.5'	Total/NA	Solid	8015B NM	28272
880-16241-11	S-7 0.5'	Total/NA	Solid	8015B NM	28272
880-16241-12	S-8 0.5'	Total/NA	Solid	8015B NM	28272
MB 880-28272/1-A	Method Blank	Total/NA	Solid	8015B NM	28272
LCS 880-28272/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	28272
LCSD 880-28272/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	28272
880-16239-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	28272
880-16239-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	28272

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

GC Semi VOA

Prep Batch: 28233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16241-1	S-1 0.5'	Total/NA	Solid	8015NM Prep	
880-16241-2	S-1 1'	Total/NA	Solid	8015NM Prep	
880-16241-3	S-2 0.5'	Total/NA	Solid	8015NM Prep	
880-16241-4	S-2 1'	Total/NA	Solid	8015NM Prep	
880-16241-5	S-3 0.5'	Total/NA	Solid	8015NM Prep	
880-16241-6	S-3 1'	Total/NA	Solid	8015NM Prep	
880-16241-7	S-4 0.5'	Total/NA	Solid	8015NM Prep	
880-16241-8	S-4 1'	Total/NA	Solid	8015NM Prep	
880-16241-9	S-5 0.5'	Total/NA	Solid	8015NM Prep	
MB 880-28233/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-28233/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-28233/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2448-A-1-H MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2448-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 28272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16241-10	S-6 0.5'	Total/NA	Solid	8015NM Prep	
880-16241-11	S-7 0.5'	Total/NA	Solid	8015NM Prep	
880-16241-12	S-8 0.5'	Total/NA	Solid	8015NM Prep	
MB 880-28272/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-28272/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-28272/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-16239-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-16239-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 28325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16241-1	S-1 0.5'	Total/NA	Solid	8015 NM	
880-16241-2	S-1 1'	Total/NA	Solid	8015 NM	
880-16241-3	S-2 0.5'	Total/NA	Solid	8015 NM	
880-16241-4	S-2 1'	Total/NA	Solid	8015 NM	
880-16241-5	S-3 0.5'	Total/NA	Solid	8015 NM	
880-16241-6	S-3 1'	Total/NA	Solid	8015 NM	
880-16241-7	S-4 0.5'	Total/NA	Solid	8015 NM	
880-16241-8	S-4 1'	Total/NA	Solid	8015 NM	
880-16241-9	S-5 0.5'	Total/NA	Solid	8015 NM	
880-16241-10	S-6 0.5'	Total/NA	Solid	8015 NM	
880-16241-11	S-7 0.5'	Total/NA	Solid	8015 NM	
880-16241-12	S-8 0.5'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 28275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16241-1	S-1 0.5'	Soluble	Solid	DI Leach	
880-16241-2	S-1 1'	Soluble	Solid	DI Leach	
880-16241-3	S-2 0.5'	Soluble	Solid	DI Leach	
880-16241-4	S-2 1'	Soluble	Solid	DI Leach	
880-16241-5	S-3 0.5'	Soluble	Solid	DI Leach	
880-16241-6	S-3 1'	Soluble	Solid	DI Leach	

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

HPLC/IC (Continued)

Leach Batch: 28275 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16241-7	S-4 0.5'	Soluble	Solid	DI Leach	
880-16241-8	S-4 1'	Soluble	Solid	DI Leach	
880-16241-9	S-5 0.5'	Soluble	Solid	DI Leach	
880-16241-10	S-6 0.5'	Soluble	Solid	DI Leach	
880-16241-11	S-7 0.5'	Soluble	Solid	DI Leach	
880-16241-12	S-8 0.5'	Soluble	Solid	DI Leach	
MB 880-28275/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-28275/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-28275/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-16241-3 MS	S-2 0.5'	Soluble	Solid	DI Leach	
880-16241-3 MSD	S-2 0.5'	Soluble	Solid	DI Leach	

Analysis Batch: 28540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16241-1	S-1 0.5'	Soluble	Solid	300.0	28275
880-16241-2	S-1 1'	Soluble	Solid	300.0	28275
880-16241-3	S-2 0.5'	Soluble	Solid	300.0	28275
880-16241-4	S-2 1'	Soluble	Solid	300.0	28275
880-16241-5	S-3 0.5'	Soluble	Solid	300.0	28275
880-16241-6	S-3 1'	Soluble	Solid	300.0	28275
880-16241-7	S-4 0.5'	Soluble	Solid	300.0	28275
880-16241-8	S-4 1'	Soluble	Solid	300.0	28275
880-16241-9	S-5 0.5'	Soluble	Solid	300.0	28275
880-16241-10	S-6 0.5'	Soluble	Solid	300.0	28275
880-16241-11	S-7 0.5'	Soluble	Solid	300.0	28275
880-16241-12	S-8 0.5'	Soluble	Solid	300.0	28275
MB 880-28275/1-A	Method Blank	Soluble	Solid	300.0	28275
LCS 880-28275/2-A	Lab Control Sample	Soluble	Solid	300.0	28275
LCSD 880-28275/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	28275
880-16241-3 MS	S-2 0.5'	Soluble	Solid	300.0	28275
880-16241-3 MSD	S-2 0.5'	Soluble	Solid	300.0	28275

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produced Water Release

Job ID: 880-16241-1
SDG: 22-0105-09

Client Sample ID: S-1 0.5'
Date Collected: 06/22/22 11:12
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-1
Matrix: Solid

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	28363	06/24/22 15:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28398	06/25/22 21:41	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28470	06/27/22 12:48	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28325	06/24/22 10:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	28233	06/23/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28190	06/24/22 02:32	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	28275	06/23/22 16:38	CH	XEN MID
Soluble	Analysis	300.0		1			28540	06/28/22 06:40	SC	XEN MID

Client Sample ID: S-1 1'
Date Collected: 06/22/22 11:14
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-2
Matrix: Solid

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	28363	06/24/22 15:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28398	06/25/22 22:02	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28470	06/27/22 12:48	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28325	06/24/22 10:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	28233	06/23/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28190	06/24/22 02:53	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	28275	06/23/22 16:38	CH	XEN MID
Soluble	Analysis	300.0		1			28540	06/28/22 06:50	SC	XEN MID

Client Sample ID: S-2 0.5'
Date Collected: 06/22/22 11:16
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-3
Matrix: Solid

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	28363	06/24/22 15:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28398	06/25/22 22:22	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28470	06/27/22 12:48	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28325	06/24/22 10:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	28233	06/23/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28190	06/24/22 03:14	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	28275	06/23/22 16:38	CH	XEN MID
Soluble	Analysis	300.0		1			28540	06/28/22 06:59	SC	XEN MID

Client Sample ID: S-2 1'
Date Collected: 06/22/22 11:18
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-4
Matrix: Solid

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	28363	06/24/22 15:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28398	06/25/22 22:43	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28470	06/27/22 12:48	SM	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produced Water Release

Job ID: 880-16241-1
SDG: 22-0105-09

Client Sample ID: S-2 1'
Date Collected: 06/22/22 11:18
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-4
Matrix: Solid

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			28325	06/24/22 10:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	28233	06/23/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28190	06/24/22 03:35	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	28275	06/23/22 16:38	CH	XEN MID
Soluble	Analysis	300.0		1			28540	06/28/22 07:26	SC	XEN MID

Client Sample ID: S-3 0.5'
Date Collected: 06/22/22 11:20
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-5
Matrix: Solid

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	28363	06/24/22 15:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28398	06/25/22 23:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28470	06/27/22 12:48	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28325	06/24/22 10:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	28233	06/23/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28190	06/24/22 03:56	SM	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	28275	06/23/22 16:38	CH	XEN MID
Soluble	Analysis	300.0		1			28540	06/28/22 07:36	SC	XEN MID

Client Sample ID: S-3 1'
Date Collected: 06/22/22 11:22
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	28363	06/24/22 15:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28398	06/25/22 23:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28470	06/27/22 12:48	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28325	06/24/22 10:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	28233	06/23/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28190	06/24/22 04:17	SM	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	28275	06/23/22 16:38	CH	XEN MID
Soluble	Analysis	300.0		1			28540	06/28/22 08:03	SC	XEN MID

Client Sample ID: S-4 0.5'
Date Collected: 06/22/22 11:24
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-7
Matrix: Solid

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	28363	06/24/22 15:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28398	06/25/22 23:44	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28470	06/27/22 12:48	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28325	06/24/22 10:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	28233	06/23/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28190	06/24/22 04:38	SM	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produced Water Release

Job ID: 880-16241-1
SDG: 22-0105-09

Client Sample ID: S-4 0.5'
Date Collected: 06/22/22 11:24
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	28275	06/23/22 16:38	CH	XEN MID
Soluble	Analysis	300.0		5			28540	06/28/22 08:13	SC	XEN MID

Client Sample ID: S-4 1'
Date Collected: 06/22/22 11:26
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-8
Matrix: Solid

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	28363	06/24/22 15:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28398	06/26/22 00:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28470	06/27/22 12:48	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28325	06/24/22 10:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	28233	06/23/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28190	06/24/22 04:59	SM	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	28275	06/23/22 16:38	CH	XEN MID
Soluble	Analysis	300.0		5			28540	06/28/22 08:22	SC	XEN MID

Client Sample ID: S-5 0.5'
Date Collected: 06/22/22 10:55
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-9
Matrix: Solid

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	28363	06/24/22 15:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28398	06/26/22 00:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28470	06/27/22 12:48	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28325	06/24/22 10:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	28233	06/23/22 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28190	06/24/22 05:20	SM	XEN MID
Soluble	Leach	DI Leach			4.98 L	50 mL	28275	06/23/22 16:38	CH	XEN MID
Soluble	Analysis	300.0		1			28540	06/28/22 08:31	SC	XEN MID

Client Sample ID: S-6 0.5'
Date Collected: 06/22/22 11:00
Date Received: 06/23/22 11:06

Lab Sample ID: 880-16241-10
Matrix: Solid

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	28363	06/24/22 15:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28398	06/26/22 00:45	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28470	06/27/22 12:48	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28325	06/24/22 10:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	28272	06/23/22 16:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28196	06/24/22 02:28	AJ	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	28275	06/23/22 16:38	CH	XEN MID
Soluble	Analysis	300.0		1			28540	06/28/22 08:40	SC	XEN MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produced Water Release

Job ID: 880-16241-1
SDG: 22-0105-09

Client Sample ID: S-7 0.5'

Lab Sample ID: 880-16241-11
Matrix: Solid
Date Collected: 06/22/22 11:05
Date Received: 06/23/22 11:06

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	28354	06/24/22 14:13	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28306	06/25/22 14:02	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28470	06/27/22 12:48	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28325	06/24/22 10:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	28272	06/23/22 16:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28196	06/24/22 02:48	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	28275	06/23/22 16:38	CH	XEN MID
Soluble	Analysis	300.0		5			28540	06/28/22 08:49	SC	XEN MID

Client Sample ID: S-8 0.5'

Lab Sample ID: 880-16241-12
Matrix: Solid
Date Collected: 06/22/22 11:10
Date Received: 06/23/22 11:06

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	28354	06/24/22 14:13	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28306	06/25/22 14:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28470	06/27/22 12:48	SM	XEN MID
Total/NA	Analysis	8015 NM		1			28325	06/24/22 10:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	28272	06/23/22 16:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28196	06/24/22 03:08	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	28275	06/23/22 16:38	CH	XEN MID
Soluble	Analysis	300.0		1			28540	06/28/22 08:59	SC	XEN MID

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

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	T104704400-21-22	06-30-22

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

Method Summary

Client: Larson & Associates, Inc. Job ID: 880-16241-1
Project/Site: SD 19 CTB Produced Water Release SDG: 22-0105-09

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
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: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produced Water Release

Job ID: 880-16241-1
SDG: 22-0105-09

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-16241-1	S-1 0.5'	Solid	06/22/22 11:12	06/23/22 11:06
880-16241-2	S-1 1'	Solid	06/22/22 11:14	06/23/22 11:06
880-16241-3	S-2 0.5'	Solid	06/22/22 11:16	06/23/22 11:06
880-16241-4	S-2 1'	Solid	06/22/22 11:18	06/23/22 11:06
880-16241-5	S-3 0.5'	Solid	06/22/22 11:20	06/23/22 11:06
880-16241-6	S-3 1'	Solid	06/22/22 11:22	06/23/22 11:06
880-16241-7	S-4 0.5'	Solid	06/22/22 11:24	06/23/22 11:06
880-16241-8	S-4 1'	Solid	06/22/22 11:26	06/23/22 11:06
880-16241-9	S-5 0.5'	Solid	06/22/22 10:55	06/23/22 11:06
880-16241-10	S-6 0.5'	Solid	06/22/22 11:00	06/23/22 11:06
880-16241-11	S-7 0.5'	Solid	06/22/22 11:05	06/23/22 11:06
880-16241-12	S-8 0.5'	Solid	06/22/22 11:10	06/23/22 11:06

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No. 2624

160241

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N Marienfeld, Ste 202
Midland, TX 79701
432-687-0901

DATE: 6/23/2022 PAGE 1 OF 1

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: SD 19 CTB Produced Water Release

LAI PROJECT #: 22-0105-09 COLLECTOR: DSG/TP

Data Reported to

TRRP report? ☐ Yes ☒ No

TIME ZONE Time zone/State: MNT/NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

PRESERVATION: HCl, HNO_3, H_2SO_4 ☐ NaOH ☐, ICE, UNPRESERVED

ANALYSES: BTEX ☒ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☒ | DIESEL - MOD 8015 ☒ | OIL - MOD 8015 ☒ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D W 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES	FIELD NOTES
S-1 0.5'		6/22/22	1112	S	1				X		BTEX ☒, GASOLINE MOD 8015 ☒, DIESEL - MOD 8015 ☒, OIL - MOD 8015 ☒, CHLORIDE ☒	
S-1 1'			1114									
S-2 0.5			1116									
S-2 1			1118									
S-3 0.5			1120									
S-3 1'			1122									
S-4 0.5'			1124									
S-4 1'			1126									
S-5 0.5'			1055									
S-6 0.5'			1100									
S-7 0.5			1105									
S-8 05			1110									

880-16241 Chain of Custody

TOTAL 12

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
Daniel St Germain	6/23/22/1104	
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)

LABORATORY XENCO

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP 4.2 THERM#: IR2 #2
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☐ CARRIER BILL #
☒ HAND DELIVERED

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6/29/2022
Received by OCD: 8/23/2023 10:56:44 AM
Released to Imaging: 12/5/2023 3:14:43 PM

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-16241-1
SDG Number: 22-0105-09

Login Number: 16241
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.	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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 5/2/2023 12:45:54 PM

JOB DESCRIPTION

SD 19 CTB Produce Water
SDG NUMBER 22-0105-09

JOB NUMBER

880-27756-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 12/5/2023 3:14:45 PM

my EOL

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

Holly Taylor

Generated
5/2/2023 12:45:54 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Laboratory Job ID: 880-27756-1
SDG: 22-0105-09

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-27756-1
Project/Site: SD 19 CTB Produce Water SDG: 22-0105-09

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
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: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

Job ID: 880-27756-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-27756-1

Receipt
The samples were received on 5/1/2023 9:36 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 -1.3°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: C-1 , 4.1' (880-27756-1), C-2 , 2' (880-27756-2), C-3 , 0-4.1' (880-27756-3) and C-4 , 0-2' (880-27756-4).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-52264 and analytical batch 880-52252 was outside the upper control limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-52254/5-A). Evidence of matrix interferences is not obvious.

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: The surrogate recovery for the blank associated with preparation batch 880-52286 and analytical batch 880-52249 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: C-4 , 0-2' (880-27756-4). 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.

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

Released to Imaging: 12/5/2023 3:14:43 PM

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

Client Sample ID: C-1 , 4.1'

Date Collected: 04/28/23 10:05
Date Received: 05/01/23 09:36

Lab Sample ID: 880-27756-1

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/01/23 09:43	05/01/23 22:05	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/01/23 09:43	05/01/23 22:05	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/01/23 09:43	05/01/23 22:05	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		05/01/23 09:43	05/01/23 22:05	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/01/23 09:43	05/01/23 22:05	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/01/23 09:43	05/01/23 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*05/01/23 09:43*	*05/01/23 22:05*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*05/01/23 09:43*	*05/01/23 22:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/02/23 11:35	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			05/02/23 10:40	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		05/01/23 10:35	05/01/23 12:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/01/23 10:35	05/01/23 12:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/01/23 10:35	05/01/23 12:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*101*		*70 - 130*	*05/01/23 10:35*	*05/01/23 12:54*	*1*
o-Terphenyl (Surr)	*112*		*70 - 130*	*05/01/23 10:35*	*05/01/23 12:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**121**		5.04		mg/Kg			05/01/23 17:39	1

Client Sample ID: C-2 , 2'

Date Collected: 04/28/23 10:10
Date Received: 05/01/23 09:36

Lab Sample ID: 880-27756-2

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:43	05/01/23 22:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:43	05/01/23 22:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:43	05/01/23 22:25	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		05/01/23 09:43	05/01/23 22:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:43	05/01/23 22:25	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/01/23 09:43	05/01/23 22:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*05/01/23 09:43*	*05/01/23 22:25*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*05/01/23 09:43*	*05/01/23 22:25*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

Client Sample ID: C-2 , 2'
Date Collected: 04/28/23 10:10
Date Received: 05/01/23 09:36

Lab Sample ID: 880-27756-2
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/02/23 11:35	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			05/02/23 10:40	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		05/01/23 10:35	05/01/23 13:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/01/23 10:35	05/01/23 13:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/01/23 10:35	05/01/23 13:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*104*		*70 - 130*	*05/01/23 10:35*	*05/01/23 13:16*	*1*
o-Terphenyl (Surr)	*114*		*70 - 130*	*05/01/23 10:35*	*05/01/23 13:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**126**		5.00		mg/Kg			05/01/23 17:44	1

Client Sample ID: C-3 , 0-4.1'
Date Collected: 04/28/23 10:15
Date Received: 05/01/23 09:36

Lab Sample ID: 880-27756-3
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/01/23 09:43	05/01/23 22:46	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/01/23 09:43	05/01/23 22:46	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/01/23 09:43	05/01/23 22:46	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		05/01/23 09:43	05/01/23 22:46	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/01/23 09:43	05/01/23 22:46	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/01/23 09:43	05/01/23 22:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*05/01/23 09:43*	*05/01/23 22:46*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*05/01/23 09:43*	*05/01/23 22:46*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/02/23 11:35	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			05/02/23 10:40	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		05/01/23 10:35	05/01/23 13:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/01/23 10:35	05/01/23 13:38	1

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

Client Sample ID: C-3 , 0-4.1'
Date Collected: 04/28/23 10:15
Date Received: 05/01/23 09:36

Lab Sample ID: 880-27756-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/01/23 10:35	05/01/23 13:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*98*		*70 - 130*	*05/01/23 10:35*	*05/01/23 13:38*	*1*
o-Terphenyl (Surr)	*104*		*70 - 130*	*05/01/23 10:35*	*05/01/23 13:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**445**		4.97		mg/Kg			05/01/23 17:49	1

Client Sample ID: C-4 , 0-2'
Date Collected: 04/28/23 10:20
Date Received: 05/01/23 09:36

Lab Sample ID: 880-27756-4
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/01/23 09:43	05/01/23 23:06	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/01/23 09:43	05/01/23 23:06	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/01/23 09:43	05/01/23 23:06	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		05/01/23 09:43	05/01/23 23:06	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/01/23 09:43	05/01/23 23:06	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		05/01/23 09:43	05/01/23 23:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*05/01/23 09:43*	*05/01/23 23:06*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*05/01/23 09:43*	*05/01/23 23:06*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			05/02/23 11:35	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			05/02/23 10:40	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		05/01/23 10:35	05/01/23 11:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/01/23 10:35	05/01/23 11:49	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/01/23 10:35	05/01/23 11:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*128*		*70 - 130*	*05/01/23 10:35*	*05/01/23 11:49*	*1*
o-Terphenyl (Surr)	*135*	*S1+*	*70 - 130*	*05/01/23 10:35*	*05/01/23 11:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**197**		4.95		mg/Kg			05/01/23 17:54	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-27756-1	C-1 , 4.1'	76	93
880-27756-1 MS	C-1 , 4.1'	111	107
880-27756-1 MSD	C-1 , 4.1'	107	108
880-27756-2	C-2 , 2'	80	84
880-27756-3	C-3 , 0-4.1'	99	75
880-27756-4	C-4 , 0-2'	82	82
LCS 880-52264/1-A	Lab Control Sample	101	104
LCSD 880-52264/2-A	Lab Control Sample Dup	110	105
MB 880-52254/5-A	Method Blank	68 S1-	91
MB 880-52264/5-A	Method Blank	66 S1-	78

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**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-27756-1	C-1 , 4.1'	101	112
880-27756-2	C-2 , 2'	104	114
880-27756-3	C-3 , 0-4.1'	98	104
880-27756-4	C-4 , 0-2'	128	135 S1+
880-27756-4 MS	C-4 , 0-2'	83	81
880-27756-4 MSD	C-4 , 0-2'	84	84
LCS 880-52286/2-A	Lab Control Sample	98	104
LCSD 880-52286/3-A	Lab Control Sample Dup	114	120
MB 880-52286/1-A	Method Blank	113	134 S1+

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-52254/5-A
Matrix: Solid
Analysis Batch: 52252

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 52254

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:06	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		05/01/23 09:09	05/01/23 11:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:09	05/01/23 11:06	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/01/23 09:09	05/01/23 11:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*05/01/23 09:09*	*05/01/23 11:06*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*05/01/23 09:09*	*05/01/23 11:06*	*1*

Lab Sample ID: MB 880-52264/5-A
Matrix: Solid
Analysis Batch: 52252

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 52264

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:43	05/01/23 21:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:43	05/01/23 21:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:43	05/01/23 21:43	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		05/01/23 09:43	05/01/23 21:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/01/23 09:43	05/01/23 21:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/01/23 09:43	05/01/23 21:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*66*	*S1-*	*70 - 130*	*05/01/23 09:43*	*05/01/23 21:43*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*05/01/23 09:43*	*05/01/23 21:43*	*1*

Lab Sample ID: LCS 880-52264/1-A
Matrix: Solid
Analysis Batch: 52252

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 52264

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1156		mg/Kg		116	70 - 130		
Toluene			0.100	0.1027		mg/Kg		103	70 - 130		
Ethylbenzene			0.100	0.1027		mg/Kg		103	70 - 130		
m,p-Xylenes			0.200	0.2043		mg/Kg		102	70 - 130		
o-Xylene			0.100	0.1007		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-52264/2-A
Matrix: Solid
Analysis Batch: 52252

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 52264

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1169		mg/Kg		117	70 - 130	1	35

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

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

Lab Sample ID: LCSD 880-52264/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 52252 — **Prep Batch: 52264**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1109		mg/Kg		111	70 - 130	8	35
Ethylbenzene			0.100	0.1182		mg/Kg		118	70 - 130	14	35
m,p-Xylenes			0.200	0.2364		mg/Kg		118	70 - 130	15	35
o-Xylene			0.100	0.1163		mg/Kg		116	70 - 130	14	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 880-27756-1 MS — **Client Sample ID: C-1 , 4.1'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 52252 — **Prep Batch: 52264**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.1129		mg/Kg		113	70 - 130
Toluene	<0.00199	U	0.0998	0.1018		mg/Kg		102	70 - 130
Ethylbenzene	<0.00199	U	0.0998	0.1070		mg/Kg		107	70 - 130
m,p-Xylenes	<0.00398	U	0.200	0.2147		mg/Kg		108	70 - 130
o-Xylene	<0.00199	U	0.0998	0.1058		mg/Kg		106	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: 880-27756-1 MSD — **Client Sample ID: C-1 , 4.1'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 52252 — **Prep Batch: 52264**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.1131		mg/Kg		113	70 - 130	0	35
Toluene	<0.00199	U	0.100	0.09655		mg/Kg		96	70 - 130	5	35
Ethylbenzene	<0.00199	U	0.100	0.09978		mg/Kg		100	70 - 130	7	35
m,p-Xylenes	<0.00398	U	0.200	0.2002		mg/Kg		100	70 - 130	7	35
o-Xylene	<0.00199	U	0.100	0.09845		mg/Kg		98	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

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

Lab Sample ID: MB 880-52286/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 52249 — **Prep Batch: 52286**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/01/23 08:35	05/01/23 10:23	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

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

Lab Sample ID: MB 880-52286/1-A
Matrix: Solid
Analysis Batch: 52249

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 52286

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/01/23 08:35	05/01/23 10:23	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/01/23 08:35	05/01/23 10:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*113*		*70 - 130*	*05/01/23 08:35*	*05/01/23 10:23*	*1*
o-Terphenyl (Surr)	*134*	*S1+*	*70 - 130*	*05/01/23 08:35*	*05/01/23 10:23*	*1*

Lab Sample ID: LCS 880-52286/2-A
Matrix: Solid
Analysis Batch: 52249

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 52286

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	829.8		mg/Kg		83	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	764.3		mg/Kg		76	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*98*		*70 - 130*
o-Terphenyl (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-52286/3-A
Matrix: Solid
Analysis Batch: 52249

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 52286

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	902.4		mg/Kg		90	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	899.4		mg/Kg		90	70 - 130	16	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*114*		*70 - 130*
o-Terphenyl (Surr)	*120*		*70 - 130*

Lab Sample ID: 880-27756-4 MS
Matrix: Solid
Analysis Batch: 52249

Client Sample ID: C-4 , 0-2'
Prep Type: Total/NA
Prep Batch: 52286

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1054		mg/Kg		106	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	998	773.6		mg/Kg		76	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*83*		*70 - 130*
o-Terphenyl (Surr)	*81*		*70 - 130*

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

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

Lab Sample ID: 880-27756-4 MSD
Matrix: Solid
Analysis Batch: 52249

Client Sample ID: C-4 , 0-2'
Prep Type: Total/NA
Prep Batch: 52286

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	<50.0	U	997	1184		mg/Kg		119	70 - 130	12	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	800.7		mg/Kg		79	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*84*		*70 - 130*
o-Terphenyl (Surr)	*84*		*70 - 130*

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

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

GC VOA

Analysis Batch: 52252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27756-1	C-1 , 4.1'	Total/NA	Solid	8021B	52264
880-27756-2	C-2 , 2'	Total/NA	Solid	8021B	52264
880-27756-3	C-3 , 0-4.1'	Total/NA	Solid	8021B	52264
880-27756-4	C-4 , 0-2'	Total/NA	Solid	8021B	52264
MB 880-52254/5-A	Method Blank	Total/NA	Solid	8021B	52254
MB 880-52264/5-A	Method Blank	Total/NA	Solid	8021B	52264
LCS 880-52264/1-A	Lab Control Sample	Total/NA	Solid	8021B	52264
LCSD 880-52264/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	52264
880-27756-1 MS	C-1 , 4.1'	Total/NA	Solid	8021B	52264
880-27756-1 MSD	C-1 , 4.1'	Total/NA	Solid	8021B	52264

Prep Batch: 52254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-52254/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 52264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27756-1	C-1 , 4.1'	Total/NA	Solid	5035	
880-27756-2	C-2 , 2'	Total/NA	Solid	5035	
880-27756-3	C-3 , 0-4.1'	Total/NA	Solid	5035	
880-27756-4	C-4 , 0-2'	Total/NA	Solid	5035	
MB 880-52264/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-52264/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-52264/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-27756-1 MS	C-1 , 4.1'	Total/NA	Solid	5035	
880-27756-1 MSD	C-1 , 4.1'	Total/NA	Solid	5035	

Analysis Batch: 52394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27756-1	C-1 , 4.1'	Total/NA	Solid	Total BTEX	
880-27756-2	C-2 , 2'	Total/NA	Solid	Total BTEX	
880-27756-3	C-3 , 0-4.1'	Total/NA	Solid	Total BTEX	
880-27756-4	C-4 , 0-2'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 52249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27756-1	C-1 , 4.1'	Total/NA	Solid	8015B NM	52286
880-27756-2	C-2 , 2'	Total/NA	Solid	8015B NM	52286
880-27756-3	C-3 , 0-4.1'	Total/NA	Solid	8015B NM	52286
880-27756-4	C-4 , 0-2'	Total/NA	Solid	8015B NM	52286
MB 880-52286/1-A	Method Blank	Total/NA	Solid	8015B NM	52286
LCS 880-52286/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	52286
LCSD 880-52286/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	52286
880-27756-4 MS	C-4 , 0-2'	Total/NA	Solid	8015B NM	52286
880-27756-4 MSD	C-4 , 0-2'	Total/NA	Solid	8015B NM	52286

Prep Batch: 52286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27756-1	C-1 , 4.1'	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

GC Semi VOA (Continued)

Prep Batch: 52286 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27756-2	C-2 , 2'	Total/NA	Solid	8015NM Prep	
880-27756-3	C-3 , 0-4.1'	Total/NA	Solid	8015NM Prep	
880-27756-4	C-4 , 0-2'	Total/NA	Solid	8015NM Prep	
MB 880-52286/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-52286/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-52286/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-27756-4 MS	C-4 , 0-2'	Total/NA	Solid	8015NM Prep	
880-27756-4 MSD	C-4 , 0-2'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 52379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27756-1	C-1 , 4.1'	Total/NA	Solid	8015 NM	
880-27756-2	C-2 , 2'	Total/NA	Solid	8015 NM	
880-27756-3	C-3 , 0-4.1'	Total/NA	Solid	8015 NM	
880-27756-4	C-4 , 0-2'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 52207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27756-1	C-1 , 4.1'	Soluble	Solid	DI Leach	
880-27756-2	C-2 , 2'	Soluble	Solid	DI Leach	
880-27756-3	C-3 , 0-4.1'	Soluble	Solid	DI Leach	
880-27756-4	C-4 , 0-2'	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	

Analysis Batch: 52288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-27756-1	C-1 , 4.1'	Soluble	Solid	300.0	52207
880-27756-2	C-2 , 2'	Soluble	Solid	300.0	52207
880-27756-3	C-3 , 0-4.1'	Soluble	Solid	300.0	52207
880-27756-4	C-4 , 0-2'	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

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

Client Sample ID: C-1 , 4.1'
Date Collected: 04/28/23 10:05
Date Received: 05/01/23 09:36

Lab Sample ID: 880-27756-1
Matrix: Solid

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	52264	05/01/23 09:43	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52252	05/01/23 22:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52394	05/02/23 11:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			52379	05/02/23 10:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	52286	05/01/23 10:35	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52249	05/01/23 12:54	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	52207	05/01/23 10:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52288	05/01/23 17:39	SMC	EET MID

Client Sample ID: C-2 , 2'
Date Collected: 04/28/23 10:10
Date Received: 05/01/23 09:36

Lab Sample ID: 880-27756-2
Matrix: Solid

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	52264	05/01/23 09:43	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52252	05/01/23 22:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52394	05/02/23 11:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			52379	05/02/23 10:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	52286	05/01/23 10:35	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52249	05/01/23 13:16	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	52207	05/01/23 10:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52288	05/01/23 17:44	SMC	EET MID

Client Sample ID: C-3 , 0-4.1'
Date Collected: 04/28/23 10:15
Date Received: 05/01/23 09:36

Lab Sample ID: 880-27756-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	52264	05/01/23 09:43	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52252	05/01/23 22:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52394	05/02/23 11:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			52379	05/02/23 10:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	52286	05/01/23 10:35	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52249	05/01/23 13:38	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	52207	05/01/23 10:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52288	05/01/23 17:49	SMC	EET MID

Client Sample ID: C-4 , 0-2'
Date Collected: 04/28/23 10:20
Date Received: 05/01/23 09:36

Lab Sample ID: 880-27756-4
Matrix: Solid

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	52264	05/01/23 09:43	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52252	05/01/23 23:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52394	05/02/23 11:35	SM	EET MID

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

Client Sample ID: C-4 , 0-2'

Date Collected: 04/28/23 10:20
Date Received: 05/01/23 09:36

Lab Sample ID: 880-27756-4

Matrix: Solid

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			52379	05/02/23 10:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	52286	05/01/23 10:35	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52249	05/01/23 11:49	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	52207	05/01/23 10:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52288	05/01/23 17:54	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

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
Total BTEX		Solid	Total BTEX

Method Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
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
5035	Closed System Purge and Trap	SW846	EET MID
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 MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB Produce Water

Job ID: 880-27756-1
SDG: 22-0105-09

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-27756-1	C-1 , 4.1'	Solid	04/28/23 10:05	05/01/23 09:36
880-27756-2	C-2 , 2'	Solid	04/28/23 10:10	05/01/23 09:36
880-27756-3	C-3 , 0-4.1'	Solid	04/28/23 10:15	05/01/23 09:36
880-27756-4	C-4 , 0-2'	Solid	04/28/23 10:20	05/01/23 09:36

Released to Imaging: 12/5/2023 3:14:43 PM
Received by OCD: 8/23/2023 10:56:44 AM

27756 No. 2994

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 202
Midland, TX 79701
432-687-0901

DATE 4-28-23 PAGE 1 OF 1
PO# LAB WORK ORDER#
PROJECT LOCATION OR NAME SD 19 CTB Produce Water
LAI PROJECT # 22-0105-09 COLLECTOR KG

Data Reported to

TRRP report? ☐ Yes ☒ No
TIME ZONE Time zone/State MST/NM

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES
C-1, 4.1'		4-28-23	1005	S	1				X		BTEX ☐ MTBE ☐ TPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ GASOLINE MOD 8015 ☐ DIESEL - MOD 8015 ☐ OIL - MOD 8015 ☐ VOC 8260 ☐ SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ 8082 PCBS ☐ TCLP - METALS (RCRA) ☐ TCLP VOC ☐ TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ TOTAL METALS (RCRA) ☐ OTHER LIST ☐ LEAD - TOTAL ☐ D W 200.8 ☐ TCLP ☐ RCI ☐ TOX ☐ FLASHPOINT ☐ TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ pH ☐ HEXAVALENT CHROMIUM ☐ EXPLOSIVES ☐ PECHLORATE ☐ CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
C-2, 2'			1015									202
C-3, 0-4.1'			1020									
C-4, 0-2'												

880-27756 Chain of Custody

TOTAL 4

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
Daniel Gee	5/11/23	9:36 Kelsey Rice
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)

LABORATORY Xenco

TURN AROUND TIME
NORMAL ☐
1 DAY ☒
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP 1.6/1.3 THERM# IR8 - 36
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-27756-1
SDG Number: 22-0105-09

Login Number: 27756
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.	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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Mark J Larson
Larson & Associates, Inc.
507 N Marienfeld
Suite 202
Midland, Texas 79701

Generated 6/6/2023 12:31:15 PM

JOB DESCRIPTION

SD 19 CTB PW Release
SDG NUMBER 22-0105-09

JOB NUMBER

880-29009-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 12/5/2023 3:14:45 PM

my EOL

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

Holly Taylor

Generated
6/6/2023 12:31:15 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB PW Release

Laboratory Job ID: 880-29009-1
SDG: 22-0105-09

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Definitions/Glossary

Client: Larson & Associates, Inc. Job ID: 880-29009-1
Project/Site: SD 19 CTB PW Release SDG: 22-0105-09

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
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: Larson & Associates, Inc.
Project/Site: SD 19 CTB PW Release

Job ID: 880-29009-1
SDG: 22-0105-09

Job ID: 880-29009-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-29009-1

Receipt
The samples were received on 6/1/2023 3:13 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 3.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: C-5, 1' (880-29009-1) and C-6, 0-1' (880-29009-2).

GC VOA
Method 8021B: The continuing calibration verification (CCV) associated with batch 880-54717 recovered above the upper control limit for Benzene, Toluene and Ethylbenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 880-54717/2), (CCV 880-54717/20) and (CCV 880-54717/33).

Method 8021B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 880-54723 and 880-54723 and analytical batch 880-54717 recovered outside control limits for the following analytes: Benzene, Toluene, Ethylbenzene and o-Xylene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-54723 and analytical batch 880-54717 was outside the control limits.

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: The surrogate recovery for the blank associated with preparation batch 880-54621 and analytical batch 880-54612 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: C-5, 1' (880-29009-1) and C-6, 0-1' (880-29009-2). 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.

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

Released to Imaging: 12/5/2023 3:14:43 PM

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB PW Release

Job ID: 880-29009-1
SDG: 22-0105-09

Client Sample ID: C-5, 1'

Date Collected: 05/31/23 12:00
Date Received: 06/01/23 15:13

Lab Sample ID: 880-29009-1
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *+	0.00198		mg/Kg		06/05/23 09:33	06/05/23 18:16	1
Toluene	<0.00198	U *+	0.00198		mg/Kg		06/05/23 09:33	06/05/23 18:16	1
Ethylbenzene	<0.00198	U *+	0.00198		mg/Kg		06/05/23 09:33	06/05/23 18:16	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		06/05/23 09:33	06/05/23 18:16	1
o-Xylene	<0.00198	U *- *1	0.00198		mg/Kg		06/05/23 09:33	06/05/23 18:16	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		06/05/23 09:33	06/05/23 18:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*06/05/23 09:33*	*06/05/23 18:16*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*06/05/23 09:33*	*06/05/23 18:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			06/06/23 12:06	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			06/05/23 11:22	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		06/02/23 09:01	06/02/23 17:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/02/23 09:01	06/02/23 17:05	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/02/23 09:01	06/02/23 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*133*	*S1+*	*70 - 130*	*06/02/23 09:01*	*06/02/23 17:05*	*1*
o-Terphenyl (Surr)	*99*		*70 - 130*	*06/02/23 09:01*	*06/02/23 17:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**261**		4.98		mg/Kg			06/04/23 20:54	1

Client Sample ID: C-6, 0-1'

Date Collected: 05/31/23 12:05
Date Received: 06/01/23 15:13

Lab Sample ID: 880-29009-2
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *+	0.00202		mg/Kg		06/05/23 09:33	06/05/23 18:42	1
Toluene	<0.00202	U *+	0.00202		mg/Kg		06/05/23 09:33	06/05/23 18:42	1
Ethylbenzene	<0.00202	U *+	0.00202		mg/Kg		06/05/23 09:33	06/05/23 18:42	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		06/05/23 09:33	06/05/23 18:42	1
o-Xylene	<0.00202	U *- *1	0.00202		mg/Kg		06/05/23 09:33	06/05/23 18:42	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		06/05/23 09:33	06/05/23 18:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*06/05/23 09:33*	*06/05/23 18:42*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*06/05/23 09:33*	*06/05/23 18:42*	*1*

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB PW Release

Job ID: 880-29009-1
SDG: 22-0105-09

Client Sample ID: C-6, 0-1'
Date Collected: 05/31/23 12:05
Date Received: 06/01/23 15:13

Lab Sample ID: 880-29009-2
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			06/06/23 12:06	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**444**		50.0		mg/Kg			06/05/23 11:22	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		06/02/23 09:01	06/02/23 17:26	1
Diesel Range Organics (Over C10-C28)	**444**		50.0		mg/Kg		06/02/23 09:01	06/02/23 17:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/02/23 09:01	06/02/23 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*140*	*S1+*	*70 - 130*	*06/02/23 09:01*	*06/02/23 17:26*	*1*
o-Terphenyl (Surr)	*106*		*70 - 130*	*06/02/23 09:01*	*06/02/23 17:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7070**		50.2		mg/Kg			06/04/23 21:10	10

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB PW Release

Job ID: 880-29009-1
SDG: 22-0105-09

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-29009-1	C-5, 1'	127	91										
880-29009-2	C-6, 0-1'	125	90										
LCS 880-54723/1-A	Lab Control Sample	114	104										
LCSD 880-54723/2-A	Lab Control Sample Dup	119	100										
MB 880-54723/5-A	Method Blank	69 S1-	89										

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**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-29009-1	C-5, 1'	133 S1+	99										
880-29009-2	C-6, 0-1'	140 S1+	106										
LCS 880-54621/2-A	Lab Control Sample	111	86										
LCSD 880-54621/3-A	Lab Control Sample Dup	121	93										
MB 880-54621/1-A	Method Blank	158 S1+	125										

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB PW Release

Job ID: 880-29009-1
SDG: 22-0105-09

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-54723/5-A
Matrix: Solid
Analysis Batch: 54717

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 54723

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/05/23 09:33	06/05/23 11:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/05/23 09:33	06/05/23 11:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/05/23 09:33	06/05/23 11:35	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		06/05/23 09:33	06/05/23 11:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/05/23 09:33	06/05/23 11:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/05/23 09:33	06/05/23 11:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*06/05/23 09:33*	*06/05/23 11:35*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*06/05/23 09:33*	*06/05/23 11:35*	*1*

Lab Sample ID: LCS 880-54723/1-A
Matrix: Solid
Analysis Batch: 54717

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 54723

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1383	*+	mg/Kg		138	70 - 130		
Toluene			0.100	0.1216		mg/Kg		122	70 - 130		
Ethylbenzene			0.100	0.1204		mg/Kg		120	70 - 130		
m,p-Xylenes			0.200	0.2357		mg/Kg		118	70 - 130		
o-Xylene			0.100	0.1144		mg/Kg		114	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-54723/2-A
Matrix: Solid
Analysis Batch: 54717

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 54723

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1489	*+	mg/Kg		149	70 - 130	7	35
Toluene			0.100	0.1349	*+	mg/Kg		135	70 - 130	10	35
Ethylbenzene			0.100	0.1324	*+	mg/Kg		132	70 - 130	9	35
m,p-Xylenes			0.200	0.2585		mg/Kg		129	70 - 130	9	35
o-Xylene			0.100	0.01276	*- *1	mg/Kg		13	70 - 130	160	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB PW Release

Job ID: 880-29009-1
SDG: 22-0105-09

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

Lab Sample ID: MB 880-54621/1-A
Matrix: Solid
Analysis Batch: 54612

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 54621

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/02/23 08:00	06/02/23 08:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/02/23 08:00	06/02/23 08:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/02/23 08:00	06/02/23 08:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*158*	*S1+*	*70 - 130*	*06/02/23 08:00*	*06/02/23 08:29*	*1*
o-Terphenyl (Surr)	*125*		*70 - 130*	*06/02/23 08:00*	*06/02/23 08:29*	*1*

Lab Sample ID: LCS 880-54621/2-A
Matrix: Solid
Analysis Batch: 54612

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 54621

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	924.6		mg/Kg		92	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	938.7		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*111*		*70 - 130*
o-Terphenyl (Surr)	*86*		*70 - 130*

Lab Sample ID: LCSD 880-54621/3-A
Matrix: Solid
Analysis Batch: 54612

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 54621

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	987.6		mg/Kg		99	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	1030		mg/Kg		103	70 - 130	9	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*121*		*70 - 130*
o-Terphenyl (Surr)	*93*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-54598/1-A
Matrix: Solid
Analysis Batch: 54655

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			06/04/23 19:23	1

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB PW Release

Job ID: 880-29009-1
SDG: 22-0105-09

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-54598/2-A
Matrix: Solid
Analysis Batch: 54655

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	250.7		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-54598/3-A
Matrix: Solid
Analysis Batch: 54655

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	250.9		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 880-29009-1 MS
Matrix: Solid
Analysis Batch: 54655

Client Sample ID: C-5, 1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	261		249	495.3		mg/Kg		94	90 - 110		

Lab Sample ID: 880-29009-1 MSD
Matrix: Solid
Analysis Batch: 54655

Client Sample ID: C-5, 1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	261		249	495.5		mg/Kg		94	90 - 110	0	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB PW Release

Job ID: 880-29009-1
SDG: 22-0105-09

GC VOA

Analysis Batch: 54717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-29009-1	C-5, 1'	Total/NA	Solid	8021B	54723
880-29009-2	C-6, 0-1'	Total/NA	Solid	8021B	54723
MB 880-54723/5-A	Method Blank	Total/NA	Solid	8021B	54723
LCS 880-54723/1-A	Lab Control Sample	Total/NA	Solid	8021B	54723
LCSD 880-54723/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	54723

Prep Batch: 54723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-29009-1	C-5, 1'	Total/NA	Solid	5035	
880-29009-2	C-6, 0-1'	Total/NA	Solid	5035	
MB 880-54723/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-54723/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-54723/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 54877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-29009-1	C-5, 1'	Total/NA	Solid	Total BTEX	
880-29009-2	C-6, 0-1'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 54612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-29009-1	C-5, 1'	Total/NA	Solid	8015B NM	54621
880-29009-2	C-6, 0-1'	Total/NA	Solid	8015B NM	54621
MB 880-54621/1-A	Method Blank	Total/NA	Solid	8015B NM	54621
LCS 880-54621/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	54621
LCSD 880-54621/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	54621

Prep Batch: 54621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-29009-1	C-5, 1'	Total/NA	Solid	8015NM Prep	
880-29009-2	C-6, 0-1'	Total/NA	Solid	8015NM Prep	
MB 880-54621/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-54621/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-54621/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 54744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-29009-1	C-5, 1'	Total/NA	Solid	8015 NM	
880-29009-2	C-6, 0-1'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 54598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-29009-1	C-5, 1'	Soluble	Solid	DI Leach	
880-29009-2	C-6, 0-1'	Soluble	Solid	DI Leach	
MB 880-54598/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-54598/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-54598/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-29009-1 MS	C-5, 1'	Soluble	Solid	DI Leach	

QC Association Summary

Client: Larson & Associates, Inc. Job ID: 880-29009-1
Project/Site: SD 19 CTB PW Release SDG: 22-0105-09

HPLC/IC (Continued)

Leach Batch: 54598 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-29009-1 MSD	C-5, 1'	Soluble	Solid	DI Leach	

Analysis Batch: 54655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-29009-1	C-5, 1'	Soluble	Solid	300.0	54598
880-29009-2	C-6, 0-1'	Soluble	Solid	300.0	54598
MB 880-54598/1-A	Method Blank	Soluble	Solid	300.0	54598
LCS 880-54598/2-A	Lab Control Sample	Soluble	Solid	300.0	54598
LCSD 880-54598/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	54598
880-29009-1 MS	C-5, 1'	Soluble	Solid	300.0	54598
880-29009-1 MSD	C-5, 1'	Soluble	Solid	300.0	54598

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB PW Release

Job ID: 880-29009-1
SDG: 22-0105-09

Client Sample ID: C-5, 1'

Date Collected: 05/31/23 12:00
Date Received: 06/01/23 15:13

Lab Sample ID: 880-29009-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	54723	06/05/23 09:33	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54717	06/05/23 18:16	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54877	06/06/23 12:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			54744	06/05/23 11:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	54621	06/02/23 09:01	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54612	06/02/23 17:05	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	54598	06/01/23 16:19	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	54655	06/04/23 20:54	CH	EET MID

Client Sample ID: C-6, 0-1'

Date Collected: 05/31/23 12:05
Date Received: 06/01/23 15:13

Lab Sample ID: 880-29009-2

Matrix: Solid

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	54723	06/05/23 09:33	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54717	06/05/23 18:42	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54877	06/06/23 12:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			54744	06/05/23 11:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	54621	06/02/23 09:01	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54612	06/02/23 17:26	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	54598	06/01/23 16:19	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	54655	06/04/23 21:10	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Larson & Associates, Inc. Job ID: 880-29009-1
Project/Site: SD 19 CTB PW Release SDG: 22-0105-09

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
Total BTEX		Solid	Total BTEX

Method Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB PW Release

Job ID: 880-29009-1
SDG: 22-0105-09

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
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
5035	Closed System Purge and Trap	SW846	EET MID
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 MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: SD 19 CTB PW Release

Job ID: 880-29009-1
SDG: 22-0105-09

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-29009-1	C-5, 1'	Solid	05/31/23 12:00	06/01/23 15:13
880-29009-2	C-6, 0-1'	Solid	05/31/23 12:05	06/01/23 15:13

Released to Imaging: 12/5/2023 3:14:43 PM
Received by OCD: 8/23/2023 10:56:44 AM

29009 No. 3080

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 202
Midland, TX 79701
432-687-0901

DATE 6/1/2023 PAGE 1 OF 1

PO# _____ LAB WORK ORDER# _____

PROJECT LOCATION OR NAME SD 19 CTB PW Release

LAI PROJECT # 22-01055-09 COLLECTOR KG

Data Reported to Robert Nelson & Mark Larson

TRRP report? ☐ Yes ☑ No

TIME ZONE Time zone/State: MST/NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

Field Sample I D	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☐ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐	8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐	TCLP VOC ☐	TCLP - PEST ☐ HERB ☐	Semi-VOC ☐	TOTAL METALS (RCRA) ☐	OTHER LIST ☐	LEAD - TOTAL ☐ D W 200.8 ☐	TCLP ☐	RCI ☐ TOX ☐	FLASHPOINT ☐	TDS ☐ TSS ☐	% MOISTURE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	CYANIDE ☐	EXPLOSIVES ☐	PECHLORATE ☐	CHLORIDE ☐ ANIONS ☐	ALKALINITY ☐	FIELD NOTES
C-5, 1'		5/31/23	1200	S	1				X		X			X	X	X																					X		202
C-6, 0-1'		1	1205	1	1				X		X			X	X	X																					X		
TOTAL																																								

880-29009 Chain of Custody

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
	6/1/23 1513	
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)

LABORATORY Xenco

TURN AROUND TIME
NORMAL ☑
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP 3.3/3.0 THERM# IR8 :30
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-29009-1
SDG Number: 22-0105-09

Login Number: 29009
List Number: 1
Creator: Rodriguez, Leticia

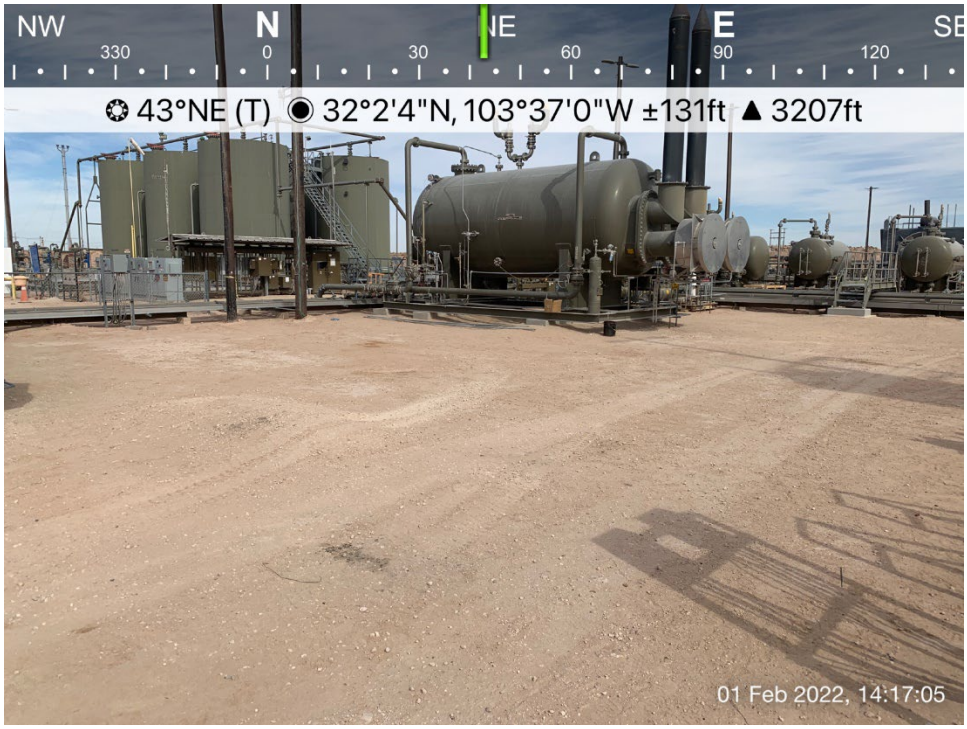
List Source: Eurofins Midland

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.	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	

Appendix F

Photographic Documentation

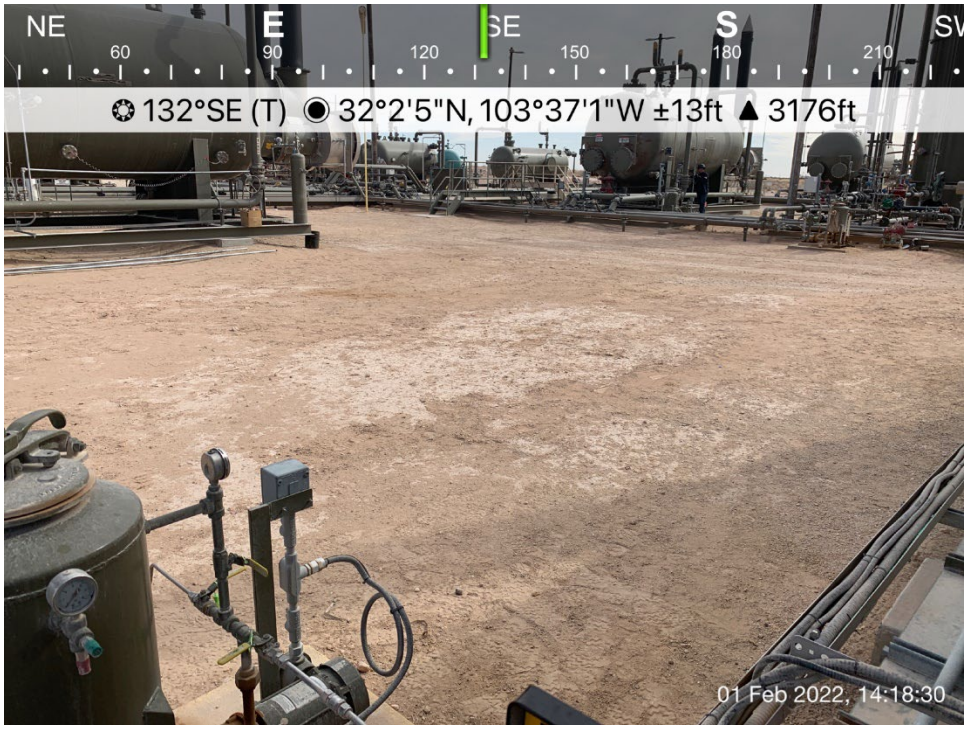
Tracking Numbers: nAPP2123134861, nAPP2201046595, and nAPP2216545859
Closure Report
Salado Draw 19 CTB, Chevron USA Inc.
Crude Oil and/or Produced Water Releases
August 10, 2023



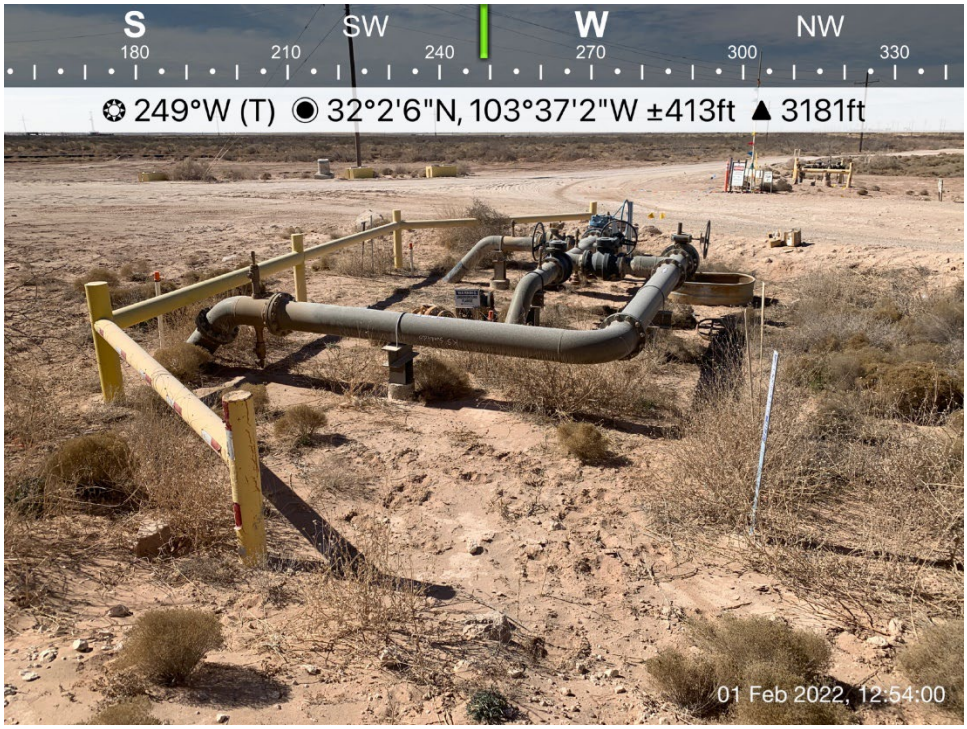
Waterline Release Impacted Area, Viewing Northeast

Waterline Release Impacted Area, Viewing North

Tracking Numbers: nAPP2123134861, nAPP2201046595, and nAPP2216545859
Closure Report
Salado Draw 19 CTB, Chevron USA Inc.
Crude Oil and/or Produced Water Releases
August 10, 2023



Waterline Release Impacted Area, Viewing Southeast



Manifold Release Impacted Area, Viewing West

Tracking Numbers: nAPP2123134861, nAPP2201046595, and nAPP2216545859
Closure Report
Salado Draw 19 CTB, Chevron USA Inc.
Crude Oil and/or Produced Water Releases
August 10, 2023

Manifold Release Impacted Area, Viewing East

Manifold Release Impacted Area, Viewing Northeast

Produced Water Release Impacted Area Viewing North, June 22, 2022

Produced Water Release Impacted Area Viewing Northeast, June 22, 2022

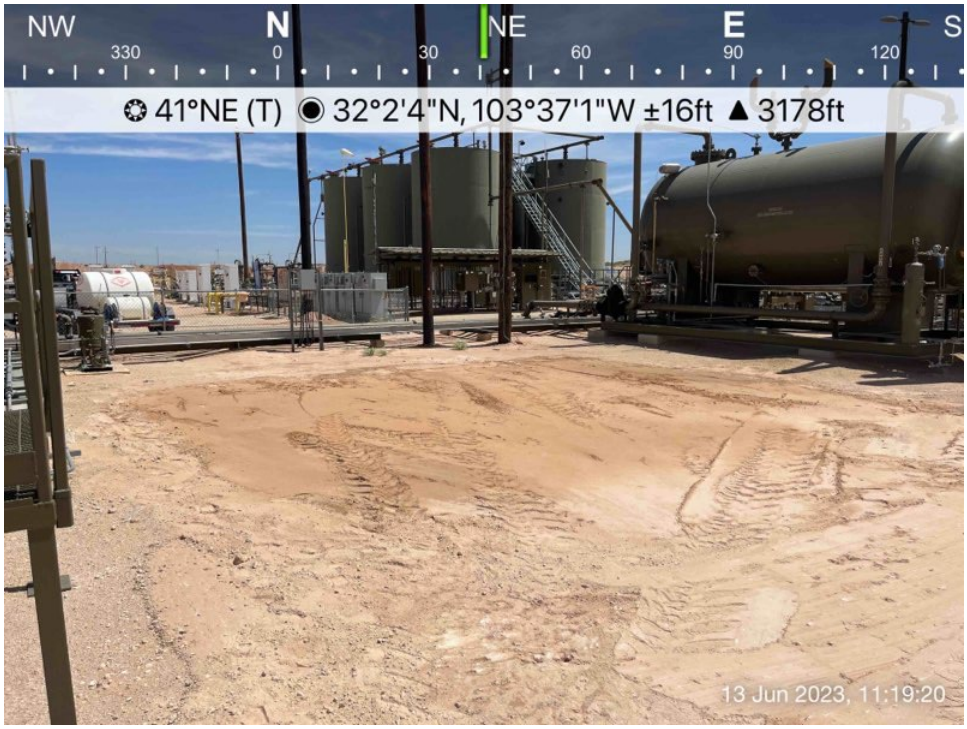
Produced Water Release Impacted Area Viewing North, June 22, 2022

Produced Water Release Impacted Area Viewing East, June 22, 2022

Waterline Excavated Area, June 13, 2023

Waterline Excavate Area, June 13, 2023

Waterline Excavated Area, June 13, 2023



Waterline Backfilled Area, June 13, 2023

Waterline Backfilled Area, June 13, 2023

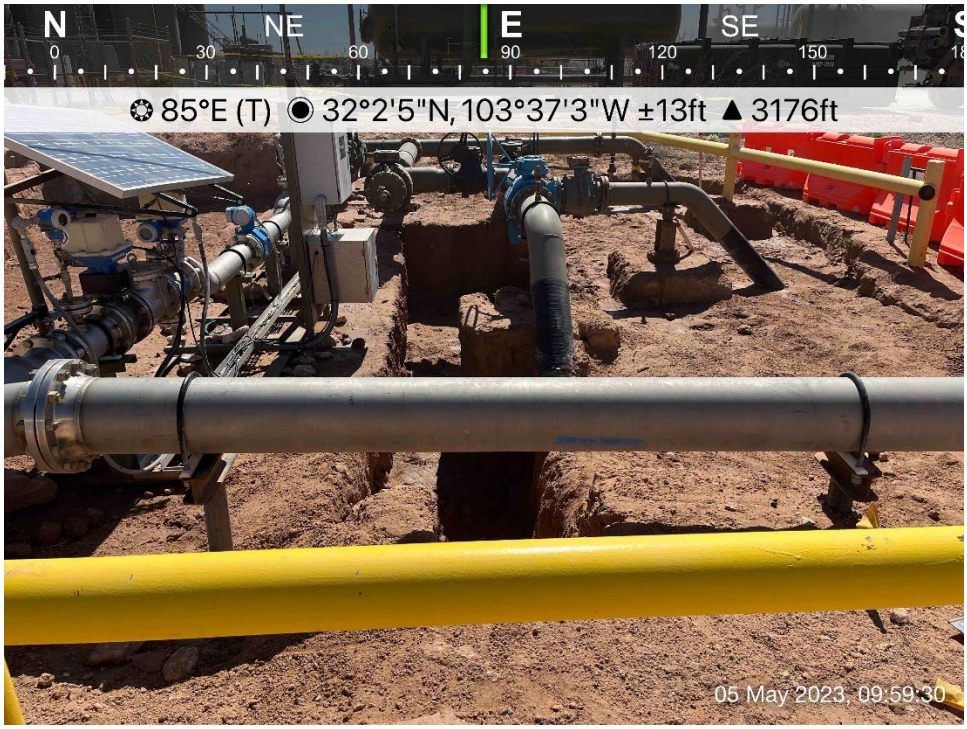
Waterline Backfilled Area, June 13, 2023

Manifold Initially Excavated Area, May 4, 2023

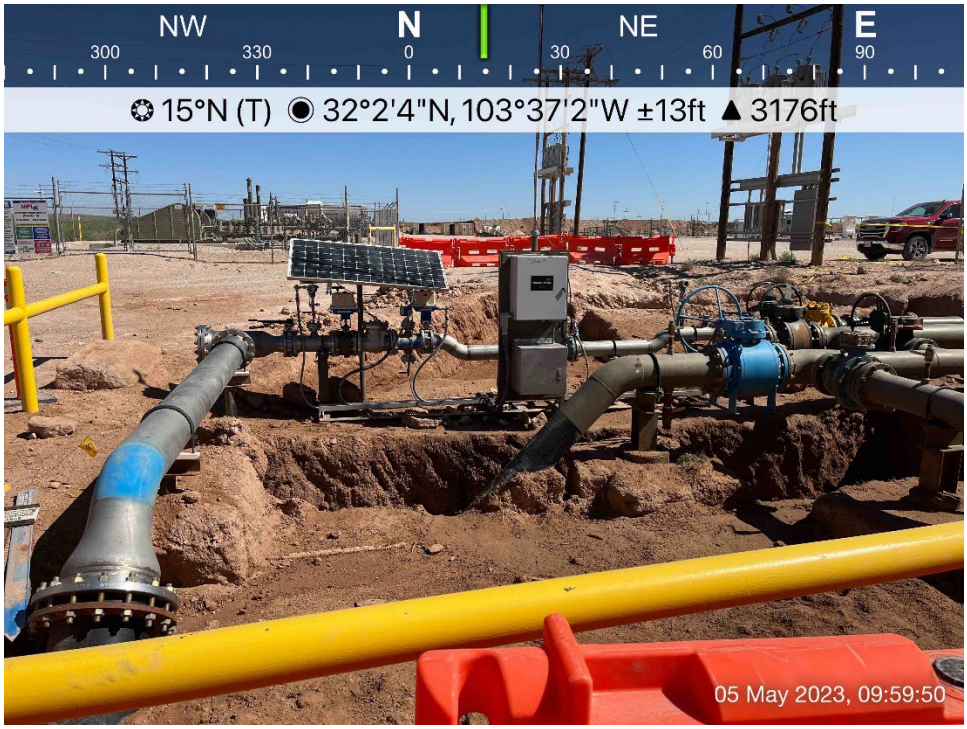
Manifold Initially Excavated Area, May 5, 2023

Tracking Numbers: nAPP2123134861, nAPP2201046595, and nAPP2216545859
Closure Report
Salado Draw 19 CTB, Chevron USA Inc.
Crude Oil and/or Produced Water Releases
August 10, 2023

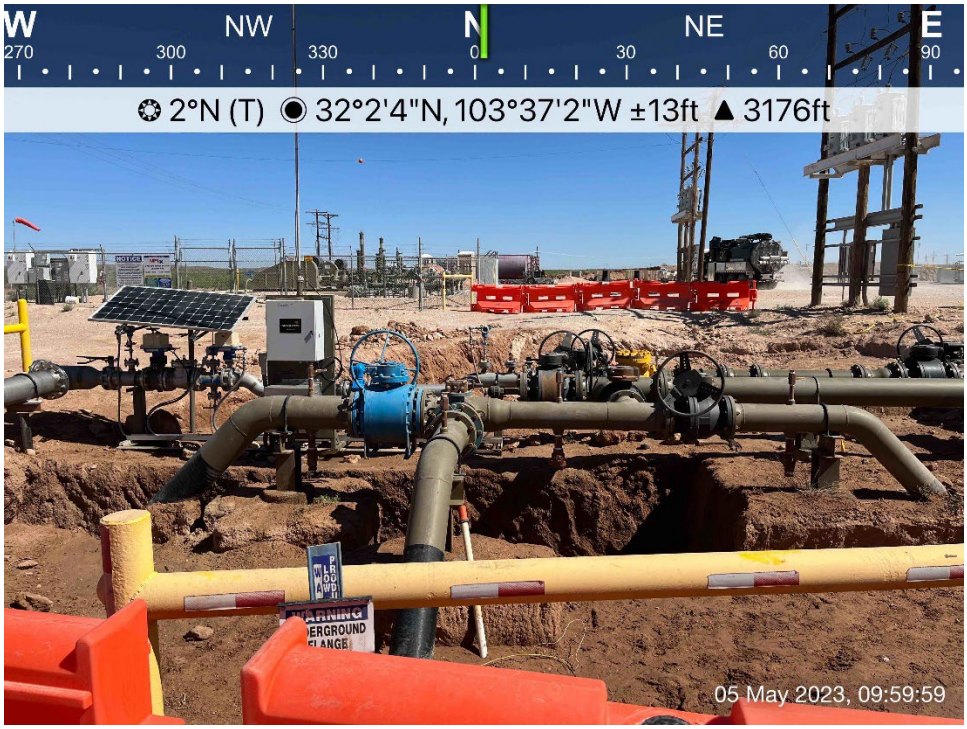
Manifold Initially Excavated Area, May 5, 2023



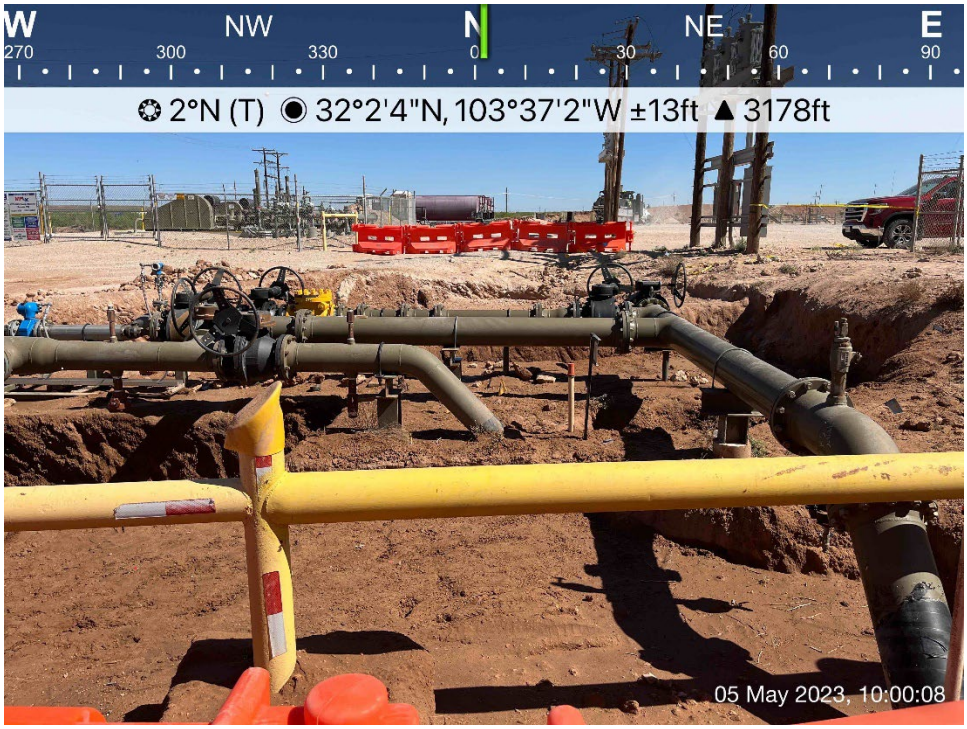
Manifold Initially Excavated Area, May 5, 2023



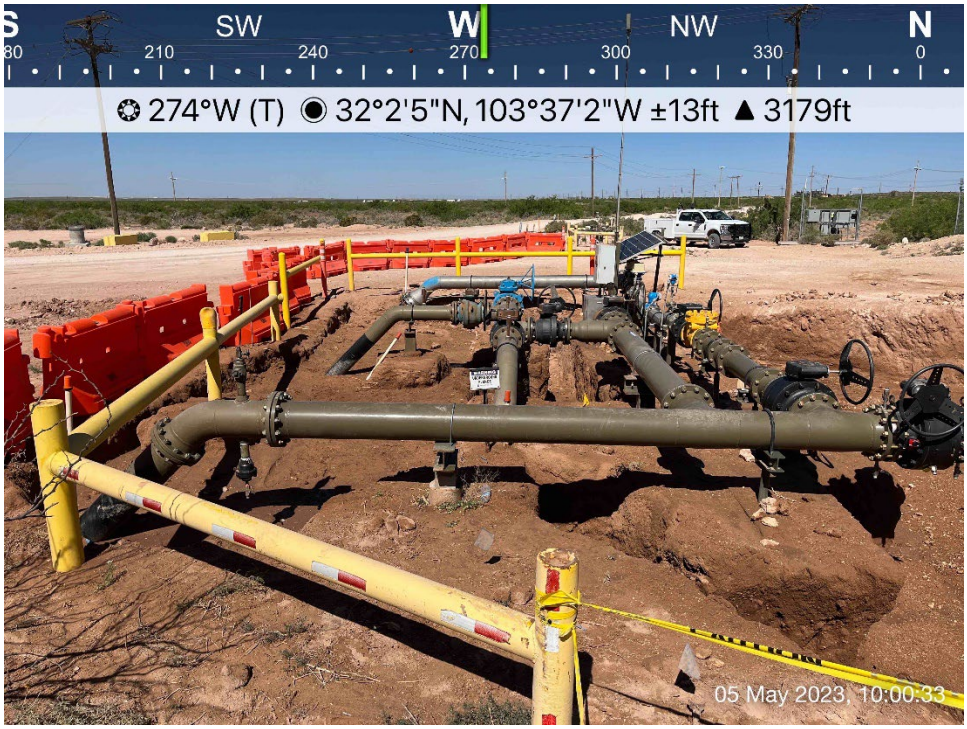
Manifold Initially Excavated Area, May 5, 2023



Manifold Initially Excavated Area, May 5, 2023



Manifold Initially Excavated Area, May 5, 2023



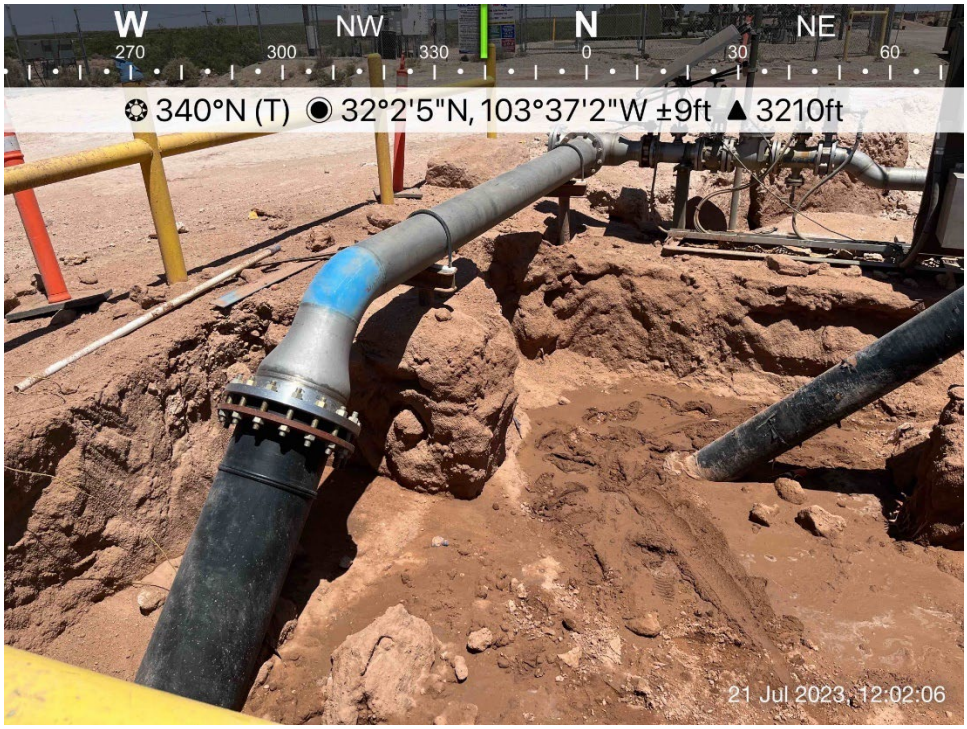
Manifold Initially Excavated Area, May 5, 2023

Tracking Numbers: nAPP2123134861, nAPP2201046595, and nAPP2216545859
Closure Report
Salado Draw 19 CTB, Chevron USA Inc.
Crude Oil and/or Produced Water Releases
August 10, 2023

Manifold Initially Excavated Area, May 5, 2023

Manifold Additionally Excavated Area, July 21, 2023

Tracking Numbers: nAPP2123134861, nAPP2201046595, and nAPP2216545859
Closure Report
Salado Draw 19 CTB, Chevron USA Inc.
Crude Oil and/or Produced Water Releases
August 10, 2023



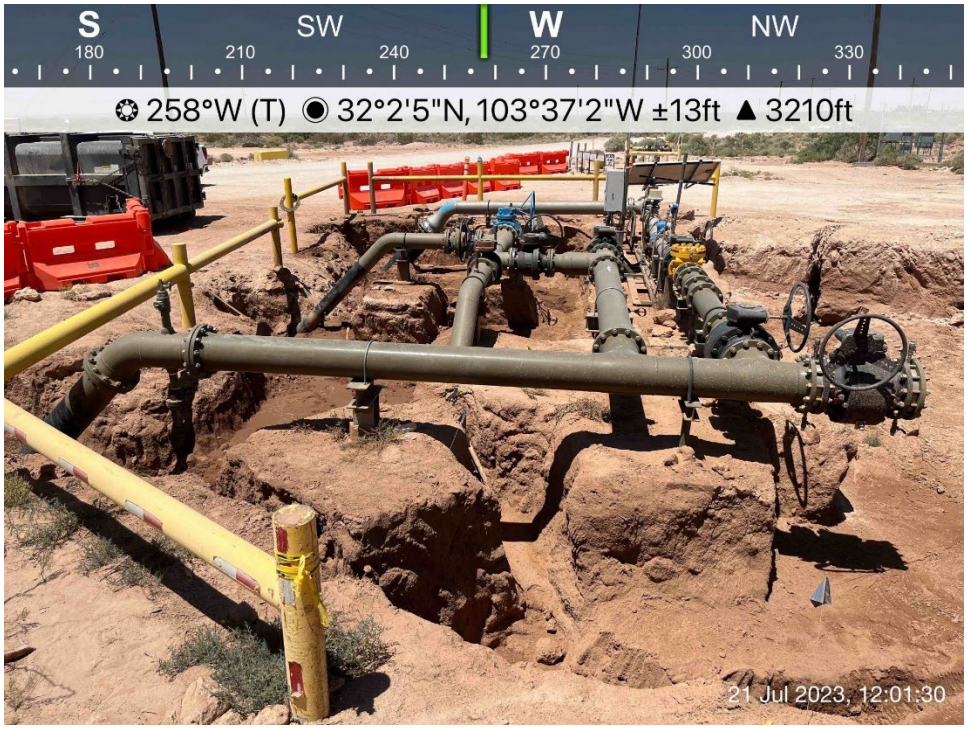
Manifold Additionally Excavated Area, July 21, 2023

Manifold Additionally Excavated Area, July 21, 2023

Tracking Numbers: nAPP2123134861, nAPP2201046595, and nAPP2216545859
Closure Report
Salado Draw 19 CTB, Chevron USA Inc.
Crude Oil and/or Produced Water Releases
August 10, 2023

Manifold Additionally Excavated Area, July 21, 2023

Manifold Additionally Excavated Area, July 21, 2023



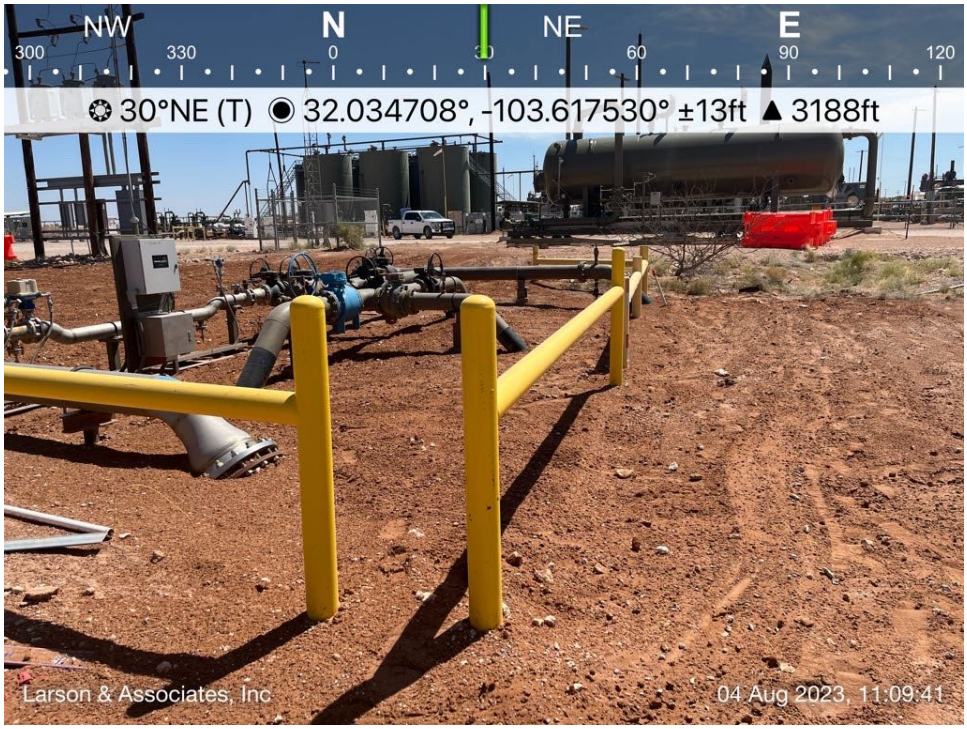
Manifold Additionally Excavated Area, July 21, 2023

Manifold Additionally Excavated Area, July 21, 2023

Manifold Additionally Excavated Area, July 21, 2023

Manifold Additionally Excavated Area, July 21, 2023

Manifold Additionally Excavated Area, July 21, 2023



Manifold Backfilled and Seeded Area, August 4, 2023

Manifold Backfilled and Seeded Area, August 4, 2023

Manifold Backfilled and Seeded Area, August 4, 2023

Tracking Numbers: nAPP2123134861, nAPP2201046595, and nAPP2216545859
Closure Report
Salado Draw 19 CTB, Chevron USA Inc.
Crude Oil and/or Produced Water Releases
August 10, 2023

Manifold Backfilled and Seeded Area, August 4, 2023

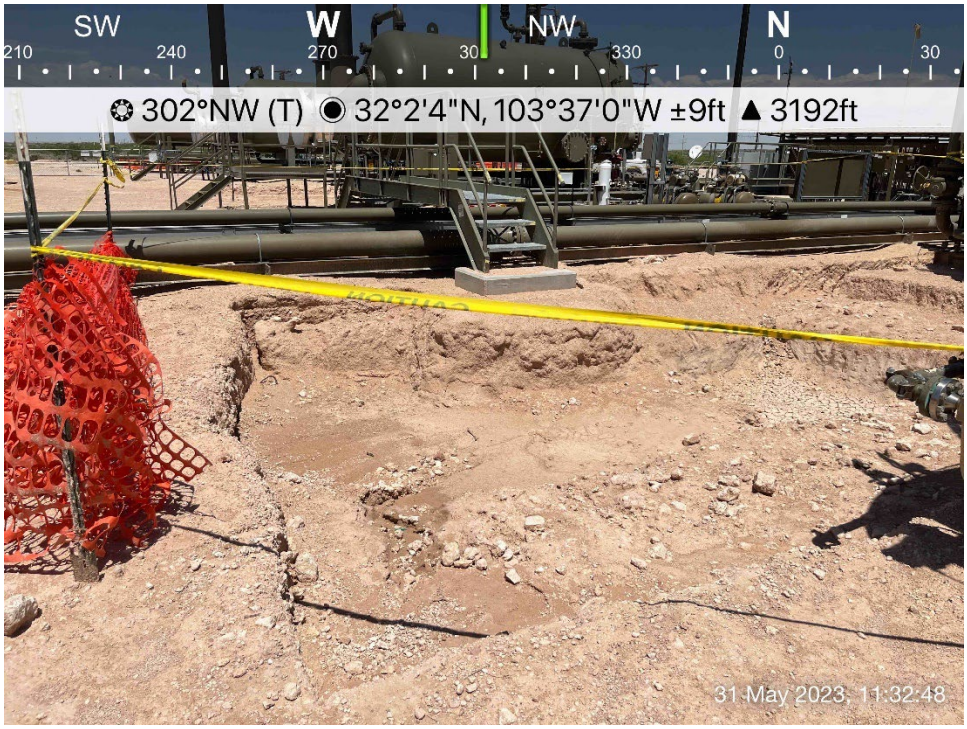
Manifold Backfilled and Seeded Area, August 4, 2023

Tracking Numbers: nAPP2123134861, nAPP2201046595, and nAPP2216545859
Closure Report
Salado Draw 19 CTB, Chevron USA Inc.
Crude Oil and/or Produced Water Releases
August 10, 2023

Manifold Backfilled and Seeded Area, August 4, 2023

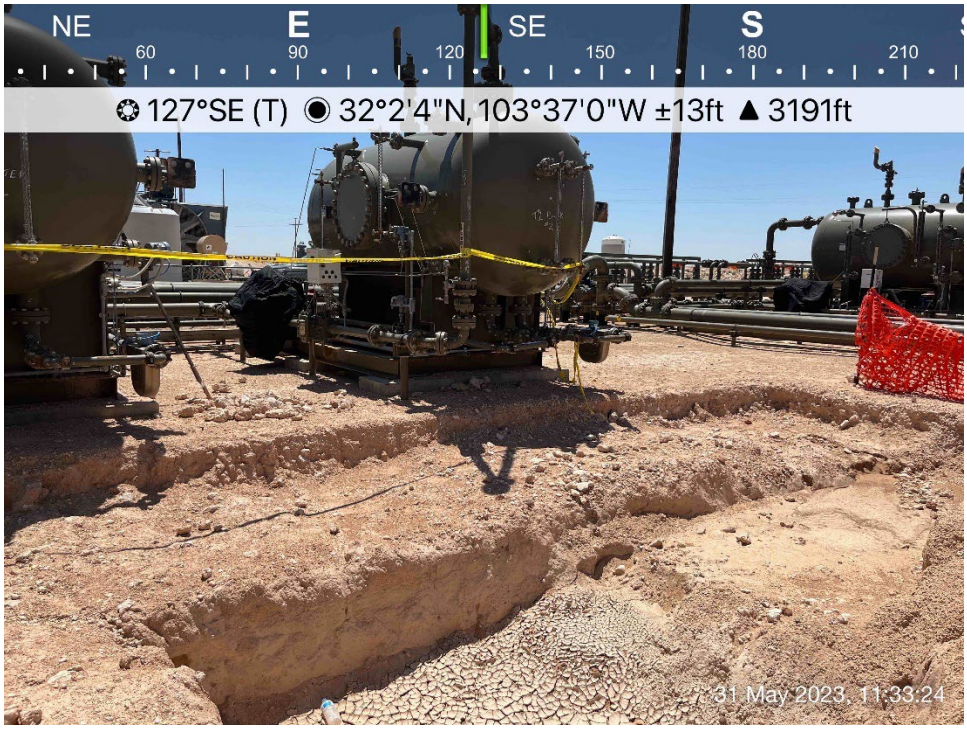
Produced Water Release Excavated Area, May 31, 2023

Produced Water Release Excavated Area, May 31, 2023



Produced Water Release Excavated Area, May 31, 2023

Tracking Numbers: nAPP2123134861, nAPP2201046595, and nAPP2216545859
Closure Report
Salado Draw 19 CTB, Chevron USA Inc.
Crude Oil and/or Produced Water Releases
August 10, 2023



Produced Water Release Excavated Area, May 31, 2023

Produced Water Release Excavated Area, May 31, 2023

Tracking Numbers: nAPP2123134861, nAPP2201046595, and nAPP2216545859
Closure Report
Salado Draw 19 CTB, Chevron USA Inc.
Crude Oil and/or Produced Water Releases
August 10, 2023

Produced Water Release Backfilled Area, June 14, 2023

Produced Water Release Backfilled Area, June 14, 2023

Tracking Numbers: nAPP2123134861, nAPP2201046595, and nAPP2216545859
Closure Report
Salado Draw 19 CTB, Chevron USA Inc.
Crude Oil and/or Produced Water Releases
August 10, 2023

Produced Water Release Backfilled Area, June 14, 2023

Produced Water Release Backfilled Area, June 14, 2023

Tracking Numbers: nAPP2123134861, nAPP2201046595, and nAPP2216545859
Closure Report
Salado Draw 19 CTB, Chevron USA Inc.
Crude Oil and/or Produced Water Releases
August 10, 2023

Produced Water Release Backfilled Area, June 14, 2023

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 255900

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 255900
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Deferral is approved. Remediation Due date will be left open until the site has been plugged and abandoned or a major facility deconstruction takes place.	12/5/2023