

Incident ID	nAPP2202552560
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>25.25</u> (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

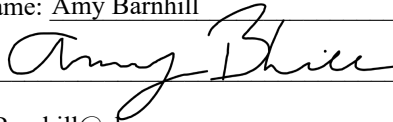
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, 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.

State of New Mexico
Oil Conservation Division

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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: Waste and Water Specialist
Signature:  Date: 5-24-22
email: ABarnhill@chevron.com Telephone: 432-687-7108

OCD Only

Received by: _____ Date: _____

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Remediation Plan

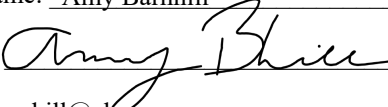
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

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

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

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

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: Waste and Water Specialist
Signature:  Date: 5-24-22
email: ABarnhill@chevron.com Telephone: 432-687-7108

OCD Only

Received by: _____ Date: _____

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

Signature:  Date: 08/30/2022

Tracking Number: nAPP220552560
Delineation Report and Remediation Plan
Gravitas SWD
Produced Water Release
Lea County, New Mexico

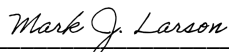
Latitude: N 32.066144°
Longitude: W -104.164853°

LAI Project No. 22-0105-03

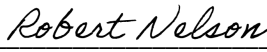
May 12, 2022

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
Sr. Geoscientist

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Appendix B	Karst Risk Potential
Appendix C	Boring Log
Appendix D	Laboratory Reports
Appendix E	Photographs

Tracking Number: nAPP2202552560
Delineation Report and Remediation Plan
Gravitas SWD, Chevron USA, Inc.
Produced Water Release
May 12, 2022

1.0 INTRODUCTION

Larson & Associates, Inc. (LAI), has prepared this delineation report and remediation plan on behalf of Chevron USA Inc. (Chevron) for submittal to the New Mexico Oil Conservation Division (OCD) District II for a produced water release at the Gravitas SWD (Site) located in Unit N (SE/4, SW/4), Section 2, Township 26 South, Range 27 East in Lea County, New Mexico. The geodetic position is North 32.066144° and West -104.164853°. Figure 1 presents a topographic map. Figure 2 presents an aerial map.

1.1 Background

The release was discovered on January 23, 2022, due to a pinhole leak in a ball valve. Chevron reported that 15.44 barrels (bbls) of produced water was released, with no recovery. The affected area measures approximately 967 square feet. The initial C-141 was submitted to OCD District II on January 25, 2022. The release was assigned incident number nAPP2202552560. Appendix A presents the Chevron spill calculation and spill map.

1.2 Physical Setting

The physical setting is as follows:

- The surface elevation is approximately 3,212 feet above mean sea level (msl).
- The surface elevation gradually decreases to the northeast.
- There are no surface water features within 1,000 feet of the Site.
- Karst data provided by the USGS describes the Site as “High Risk” potential.
- The soils are designated as Reeves-Reagan loams, 0 to 3 percent slopes, consisting of 0 to 8 inches loam, underlain by 8 to 32 inches of clay loam, and 32 to 60 inches of gypsiferous material.
- Surface geology is Paleozoic (Rustler Formation (Upper Permian)), consisting of siltstone, gypsum, sandstone, and dolomite (USGS).
- Groundwater occurs at approximately 25.25 feet below ground surface (bgs) based on depth to groundwater measurements 72 hours after drilling a soil bore (BH-1).

Figure 3 presents an aerial map showing the boring location. Appendix B presents USGS data depicting karst risk potential. Appendix C presents the boring log (BH-1).

1.3 Remediation Standards

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

- Benzene 10 mg/Kg
- BTEX 50 mg/Kg
- TPH 100 mg/Kg
- Chloride 600 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.

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Gravitas SWD, Chevron USA, Inc.
Produced Water Release
May 12, 2022

2.0 DELINEATION

On February 8, 2022, LAI personnel use a stainless-steel hand auger to collect vertical delineation soil samples from five (5) locations (S-1 through S-5) within the spill area and horizontal delineation soil samples from four (4) locations (S-6 through S-9). Vertical delineation soil samples were collected to a depth of approximately 4.5 feet bgs. Horizontal delineation soil samples were collected to a depth of approximately 1-foot bgs. The soil samples were delivered under chain of custody and preservation to Eurofins-Xenco Laboratories (Xenco) in Midland, Texas, which analyzed the samples for benzene, toluene, ethylbenzene, and xylenes (BTEX), total petroleum hydrocarbons (TPH), including gasoline range organics (C6-C12), diesel range organics (>C12-C28) and oil range organics (>C28-C35), and chloride by EPA SW-846 Methods 8021B and 8015M, and M300, respectively.

Benzene, BTEX, and TPH were below the OCD remediation standards in Table 1 (19.15.29 NMAC) of 10 milligrams per kilogram (mg/Kg), 50 mg/Kg, and 100 mg/Kg, respectively.

Vertical delineation soil samples (S-1 through S-5) were fully delineated for chloride to 600mg/Kg. Two (2) horizontal delineation soil samples (S-8 and S-9) exceeded the NMOCD delineation limit (600 mg/Kg) at a depth of approximately 1-foot bgs.

On March 7, 2022, LAI personnel utilized the Geoprobe 7822DT direct push rig to further delineate sample locations S-8 and S-9. Soil samples were collected at one (1), three (3), five (5), and ten (10) feet below ground surface (bgs). Three (3) additional horizontal delineation soil samples (S-10, S-11, and S-12) were collected to a depth of approximately 1-foot bgs. The laboratory reported one (1) horizontal delineation soil sample (S-12) with chloride above the NMOCD delineation requirement at a depth of approximately 1-foot bgs.

On April 20, 2022, LAI personnel further delineated S-12 to a depth of approximately two (2) feet bgs and collected an additional horizontal delineation soil sample (S-13) to a depth of approximately 1-foot bgs. The laboratory results demonstrate the release was delineated according to the NMOCD requirements Table 1 of 19.15.29.12 NMAC. Figure 3 presents an aerial map showing the delineation soil sample locations. Appendix D presents the laboratory reports. Appendix E presents the photographic documentation.

3.0 REMEDIATION PLAN

Chevron proposes the following remedial actions:

- Excavate soil from an area measuring approximately 691 square feet encompassing S-1, S-4, S-6, and S-9 to a depth of 1-foot bgs.
- Excavate soil from an area measuring approximately 174 square feet encompassing S-12 to a depth of 2 feet bgs.
- Excavate soil from an area measuring approximately 458 square feet encompassing S-2 and S-5 to a depth of 3 feet bgs.
- Excavate soil from an area measuring approximately 457 square feet encompassing S-3 to a depth of 4.5 feet bgs.

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Produced Water Release
May 12, 2022

- 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 assuming achievement of OCD remediation levels.
- Prepare report with photographs for submittal to OCD District II.

Figure 4 presents an aerial map showing the proposed excavation area.

Tables

Table 1
Soil Sample Analytical Data Summary
Chevron - Gravitas SWD
Eddy County, New Mexico
32° 03' 57.44" N, 104° 09' 54.03" W

Page 1 of 2

Sample	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)
Delineation Limit:				10	50	100				600
S-1	0.5	2/8/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	15,900
	1	2/8/2022	In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	307
	2	2/8/2022	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	73.8
	3	2/8/2022	In-Situ	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	54.6
	4.5	2/8/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	20.7
S-2	0.5	2/8/2022	In-Situ	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	7,010
	1	2/8/2022	In-Situ	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	6,600
	2	2/8/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	1,600
	3	2/8/2022	In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	355
	4.5	2/8/2022	In-Situ	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	137
S-3	0.5	2/8/2022	In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	6,580
	1	2/8/2022	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	8,020
	2	2/8/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	7,370
	3	2/8/2022	In-Situ	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	1,520
	4.5	2/8/2022	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	111
S-4	0.5	2/8/2022	In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	8,900
	1	2/8/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	556
	2	2/8/2022	In-Situ	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	432
	3	2/8/2022	In-Situ	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	337
	4.5	2/8/2022	In-Situ	<0.00201	<0.00402	<49.8	<49.8	63.4	63	177
S-5	0.5	2/8/2022	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	5,360
	1	2/8/2022	In-Situ	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	831
	2	2/8/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	696
	3	2/8/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	191
	4.5	2/8/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	196
S-6	0.5	2/8/2022	In-Situ	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	790
	1	2/8/2022	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	34.5
S-7	0.5	2/8/2022	In-Situ	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	6.63

Table 1
Soil Sample Analytical Data Summary
Chevron - Gravitas SWD
Eddy County, New Mexico
32° 03' 57.44" N, 104° 09' 54.03" W

Page 2 of 2

Sample	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)
Delineation Limit:				10	50	100			600	
	1	2/8/2022	In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	6.29
S-8	0.5	2/8/2022	In-Situ	<0.0200	<0.00399	<50.0	<50.0	<50.0	<50.0	2,990
	1	2/8/2022	In-Situ	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	3,540
	1	3/7/2022	In-Situ	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	2,810
	3	3/7/2022	In-Situ	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	810
	5	3/7/2022	In-Situ	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	23.5
	10	3/7/2022	In-Situ	<0.00202	<0.00404	<49.8	<49.8	<49.8	<49.8	73.0
S-9	0.5	2/8/2022	In-Situ	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	28.1
	1	2/8/2022	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	2,410
	1	3/7/2022	In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	36.3
	3	3/7/2022	In-Situ	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	5.21
	5	3/7/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<5.01
	10	3/7/2022	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<4.98
S-10	0.5	3/7/2022	In-Situ	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	17.9
	1	3/7/2022	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	30.2
S-11	0.5	3/7/2022	In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	35.6
	1	3/7/2022	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	40.6
S-12	0.5	3/7/2022	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	217
	1	3/7/2022	In-Situ	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	1,140
	2	4/20/2022	In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	292
S-13	0 - 1	4/20/2022	In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	188

Notes: Analysis performed by and Xenco Laboratories 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

Figures

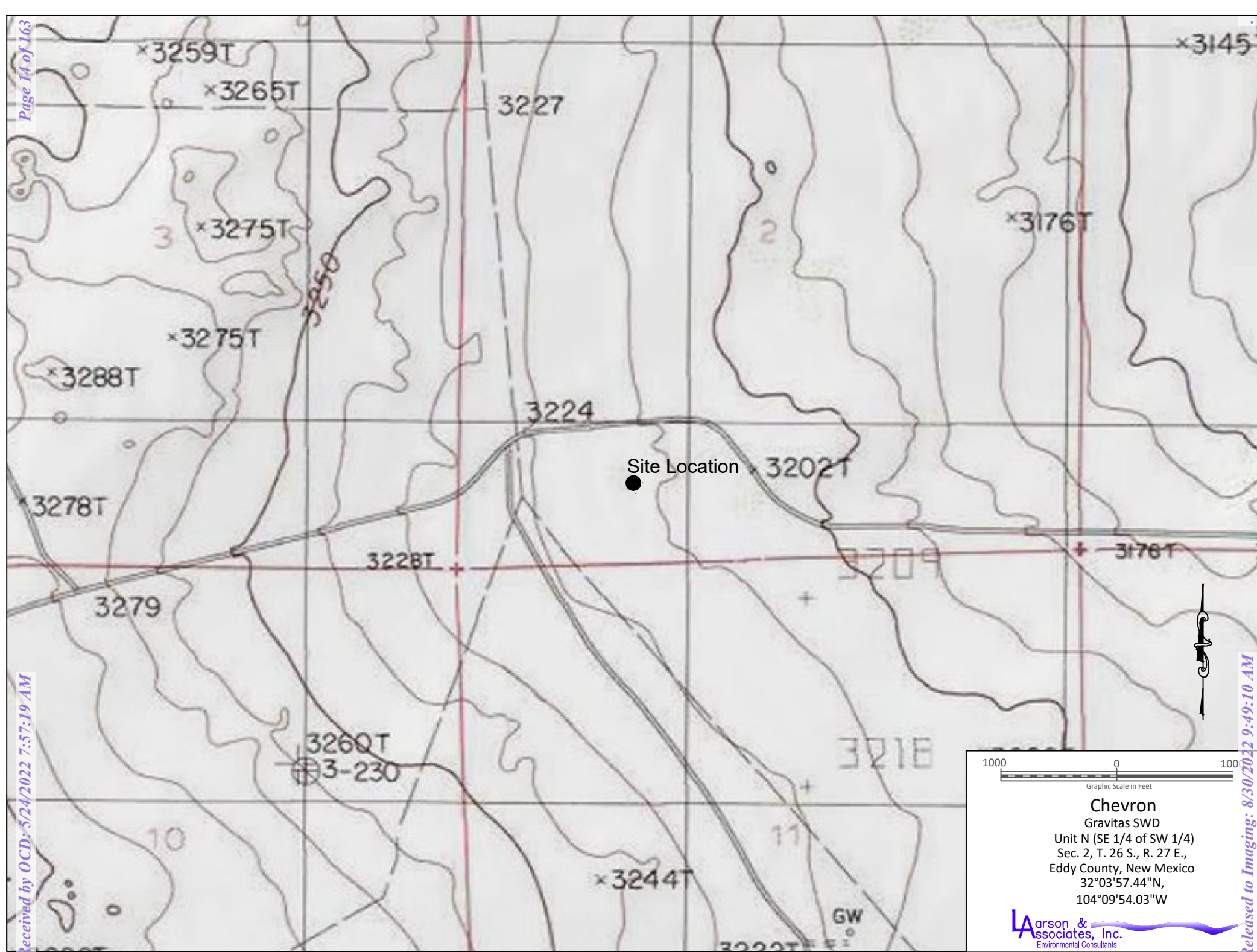
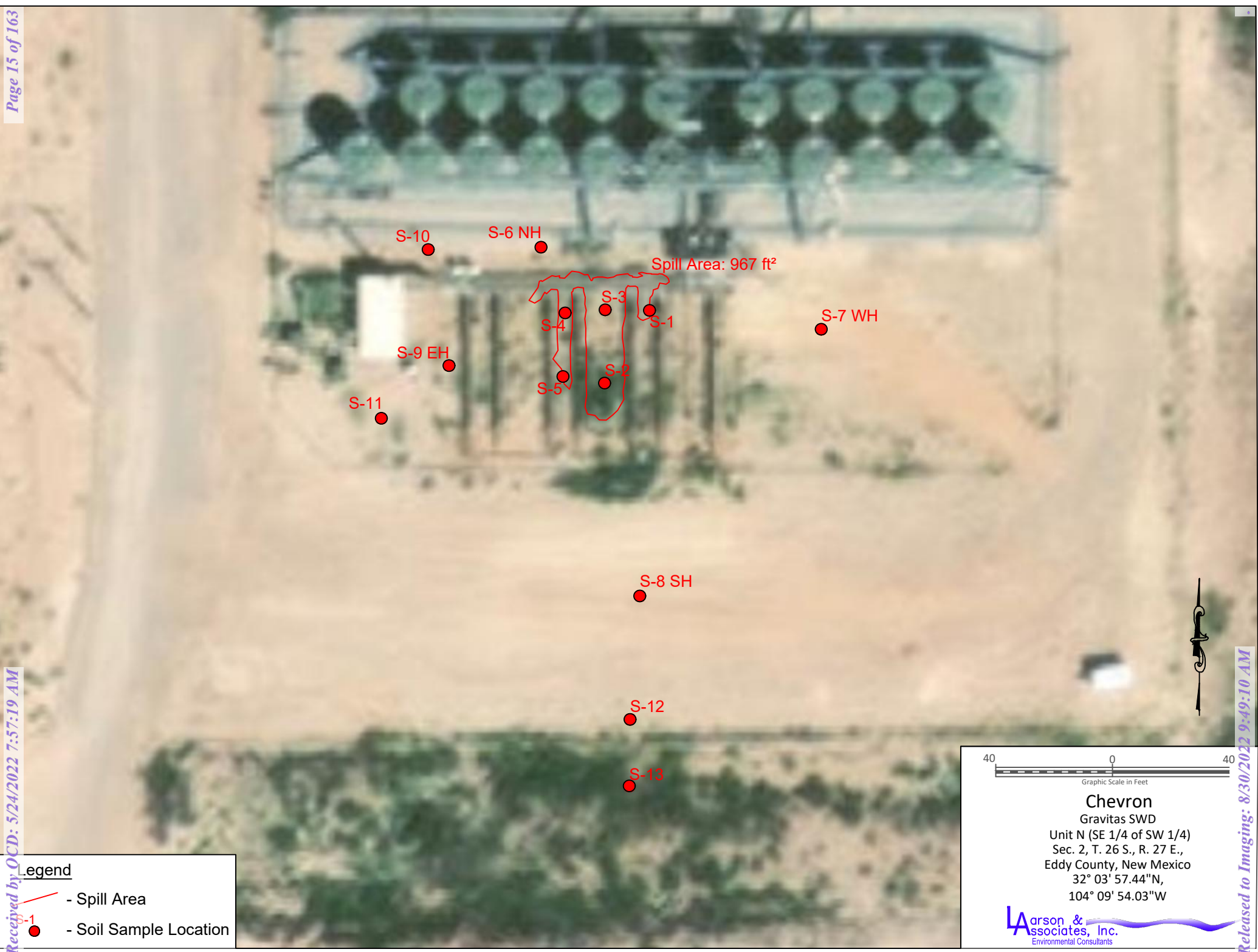


Figure 1 - Topographic Map



Legend

- Spill Area
- Soil Sample Location

Graphic Scale in Feet

40 0 40

Chevron
Gravitas SWD
Unit N (SE 1/4 of SW 1/4)
Sec. 2, T. 26 S., R. 27 E.,
Eddy County, New Mexico
32° 03' 57.44"N,
104° 09' 54.03"W

Larson & Associates, Inc.
Environmental Consultants

Figure 2 - Aerial Map



Figure 3 - Aerial Map Showing Boring Hole Location

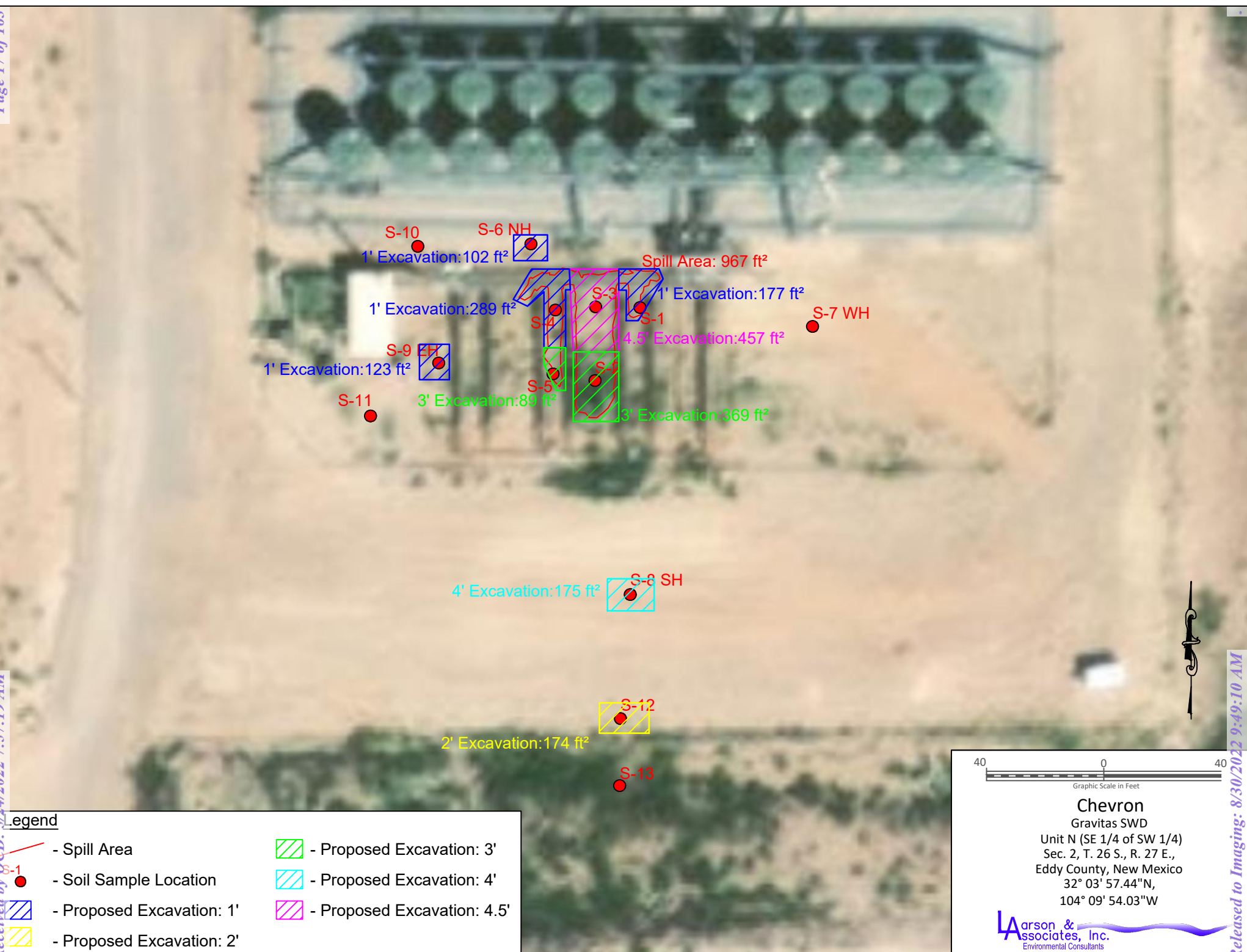


Figure 4 - Aerial Map Showing Proposed Excavation Areas

Appendix A

Chevron Spill Calculation and Spill Map

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	nAPP2202552560
District RP	
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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 32.07823215 _____ Longitude -104.15711932 _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Gravitas SWD 2	Site Type: Produced Water
Date Release Discovered: 1-23-22	API# (if applicable):

Unit Letter	Section	Township	Range	County
B	2	26S	27E	Eddy

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) 15.44	Volume Recovered (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: The ball valve had 2 pinhole leaks on the bottom.

Incident ID	nAPP2202552560
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 <u>not</u> 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: 1-25-22
email: ABarnhill@chevron.com	Telephone: 432-687-7108
<u>OCD Only</u> Received by: _____ Date: _____	

Incident ID	nAPP2202552560
District RP	
Facility ID	
Application ID	

Spill Calculations:

Area 1

Shape: Rectangle

Secondary Containment?: No

Standing Liquid Dimensions: 40 ft x 20 ft x 1 in

Standing Liquid Volume: 13.655 bbl

Water Cut: 100%

Oil Volume:.000 bbl

Penetration Depth: 1 in

Water to Soil Volume: 1.781 bbl

Water Volume: 15.436 bbl



Chevron U.S.A., Inc.
CARLSBAD FMT
HAYHURST NEW MEXICO
SWD SEC.02
EDDY COUNTY, NEW MEXICO
EMERGENCY #575-887-5676

Appendix B
Karst Risk Potential

Medium

Gravitas SWD

High

Appendix C

Boring Log

BORING RECORD

GEOLOGIC UNIT	DEPTH	Start: 11:30 Finish: 12:30 DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING										SAMPLE			REMARKS		
					PPM X <u>1</u>										NUMBER	PID READING	RECOVERY	DEPTH	BACKGROUND PID READING	
					2	4	6	8	10	12	14	16	18							
Depth to Water: 25.25	0	Silty Sand, 7.5YR 8/2, Pinkish White, Rounded, Fine Grained, Poorly Sorted, Subangular, 0.5-2cm Clast Inclusions	ML																	
	5	Caliche, 7.5YR 8/1, White, Rounded, Poorly Sorted, Medium Grained, Subangular, 0.5-1cm Diameter Clast Inclusions	Caliche																	
	10																			
	15	Silty Sand, 7.5YR 6/6, Reddish Yellow, Rounded, Fine Grained, Poorly Sorted, Subangular, 0.5-1cm Diameter Clast Inclusions	ML																	
	20	7.5YR 6/8, Reddish Yellow, Subangular, 0.5-2.5cm Diameter Clast Inclusions																		
	25	Quartz Sand, 2.5YR 8/2, Pinkish White, Fine Grained, Rounded, Poorly Sorted, Subangular, 0.5-2cm Diameter Clast Inclusions	SM																	
	30																			
	35																			
	40	Quartz Sand, Very Fine Grained, Well Rounded, Poorly Sorted, 7.5YR 8/1, White, Subangular Clast Inclusions, 0.5-1.5cm Diameter	SM																	
	45																			
50																				

ONE CONTINUOUS AUGER SAMPLER	WATER TABLE (TIME OF BORING)	JOB NUMBER : <u>Chevron/ 20-0107-03</u>
STANDARD PENETRATION TEST	LABORATORY TEST LOCATION	HOLE DIAMETER : <u>2"</u>
UNDISTURBED SAMPLE	PENETROMETER (TONS/ SQ. FT)	LOCATION : <u>Skeen 2H - Carlsbad, NM</u>
WATER TABLE (24 HRS)	NR NO RECOVERY	LAI GEOLOGIST : <u>R. Nelson</u>

	DRILL DATE : <u>04-29-2020</u>	BORING NUMBER : <u>BH-1</u>	DRILLING CONTRACTOR : <u>SDI</u>
			DRILLING METHOD : <u>Air Rotary</u>

Released to Imaging: 8/30/2022 9:49:10 AM

Appendix D
Laboratory Reports



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-11152-1
Laboratory Sample Delivery Group: 22-0105-03
Client Project/Site: Gravitas SWD

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

Attn: Mr. Mark J Larson

A handwritten signature in cursive script that reads "Holly Taylor".

Authorized for release by:
2/18/2022 3:52:59 PM

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

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Laboratory Job ID: 880-11152-1
SDG: 22-0105-03

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Definitions/Glossary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Qualifiers

GC 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.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

Case Narrative

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Job ID: 880-11152-1**Laboratory: Eurofins Midland****Narrative****Job Narrative
880-11152-1****Receipt**

The samples were received on 2/10/2022 9:00 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 0.2°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 880-19023 and analytical batch 880-19117 were outside control limits: (880-11152-A-1-A MS) and (880-11152-A-1-B MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

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: S-1 (880-11152-5), S-2 (880-11152-10), (MB 880-19054/1-A), (880-11152-A-1-E MS) and (880-11152-A-1-F MSD). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-11152-A-21-C MS) and (880-11152-A-21-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 880-19068 and analytical batch 880-19479 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: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-1

Lab Sample ID: 880-11152-1

Date Collected: 02/08/22 11:05

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F1 F2	0.00199	mg/Kg		02/11/22 09:59	02/12/22 13:20	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 13:20	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 13:20	1
m,p-Xylenes	<0.00398	U F1	0.00398	mg/Kg		02/11/22 09:59	02/12/22 13:20	1
o-Xylene	<0.00199	U F1	0.00199	mg/Kg		02/11/22 09:59	02/12/22 13:20	1
Xylenes, Total	<0.00398	U F1	0.00398	mg/Kg		02/11/22 09:59	02/12/22 13:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	02/11/22 09:59	02/12/22 13:20	1
1,4-Difluorobenzene (Surr)	86		70 - 130	02/11/22 09:59	02/12/22 13:20	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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 12:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 12:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 12:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	73		70 - 130	02/10/22 14:26	02/11/22 12:25	1
o-Terphenyl (Surr)	77		70 - 130	02/10/22 14:26	02/11/22 12:25	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15900		253	mg/Kg			02/16/22 00:53	50

Client Sample ID: S-1

Lab Sample ID: 880-11152-2

Date Collected: 02/08/22 11:10

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 13:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 13:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 13:40	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/11/22 09:59	02/12/22 13:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 13:40	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/11/22 09:59	02/12/22 13:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	02/11/22 09:59	02/12/22 13:40	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-1

Lab Sample ID: 880-11152-2

Date Collected: 02/08/22 11:10

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	88		70 - 130	02/11/22 09:59	02/12/22 13:40	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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 15:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 15:03	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 15:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	73		70 - 130			02/10/22 14:26	02/11/22 15:03	1
o-Terphenyl (Surr)	77		70 - 130			02/10/22 14:26	02/11/22 15:03	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	307		24.9	mg/Kg			02/16/22 01:02	5

Client Sample ID: S-1

Lab Sample ID: 880-11152-3

Date Collected: 02/08/22 11:15

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 2.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 14:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 14:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 14:01	1
m,p-Xylenes	<0.00399	U	0.00399	mg/Kg		02/11/22 09:59	02/12/22 14:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 14:01	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/11/22 09:59	02/12/22 14:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	02/11/22 09:59	02/12/22 14:01	1
1,4-Difluorobenzene (Surr)	104		70 - 130	02/11/22 09:59	02/12/22 14:01	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			02/14/22 09:32	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			02/17/22 15:56	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-1

Lab Sample ID: 880-11152-3

Date Collected: 02/08/22 11:15

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 2.0'

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		02/10/22 14:26	02/11/22 15:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 15:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 15:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	72		70 - 130			02/10/22 14:26	02/11/22 15:24	1
o-Terphenyl (Surr)	77		70 - 130			02/10/22 14:26	02/11/22 15:24	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	73.8		4.98	mg/Kg			02/16/22 22:41	1

Client Sample ID: S-1

Lab Sample ID: 880-11152-4

Date Collected: 02/08/22 11:20

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 3.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/11/22 09:59	02/12/22 14:21	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/11/22 09:59	02/12/22 14:21	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/11/22 09:59	02/12/22 14:21	1
m,p-Xylenes	<0.00396	U	0.00396	mg/Kg		02/11/22 09:59	02/12/22 14:21	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/11/22 09:59	02/12/22 14:21	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/11/22 09:59	02/12/22 14:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			02/11/22 09:59	02/12/22 14:21	1
1,4-Difluorobenzene (Surr)	89		70 - 130			02/11/22 09:59	02/12/22 14:21	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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 15:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 15:45	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 15:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	72		70 - 130			02/10/22 14:26	02/11/22 15:45	1
o-Terphenyl (Surr)	77		70 - 130			02/10/22 14:26	02/11/22 15:45	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-1

Lab Sample ID: 880-11152-4

Date Collected: 02/08/22 11:20

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 3.0'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54.6		5.05	mg/Kg			02/16/22 23:08	1

Client Sample ID: S-1

Lab Sample ID: 880-11152-5

Date Collected: 02/08/22 11:25

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 4.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 14:42	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 14:42	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 14:42	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/11/22 09:59	02/12/22 14:42	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 14:42	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/22 09:59	02/12/22 14:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			02/11/22 09:59	02/12/22 14:42	1
1,4-Difluorobenzene (Surr)	101		70 - 130			02/11/22 09:59	02/12/22 14:42	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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 16:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 16:27	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 16:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	69	S1-	70 - 130			02/10/22 14:26	02/11/22 16:27	1
o-Terphenyl (Surr)	72		70 - 130			02/10/22 14:26	02/11/22 16:27	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.7		4.95	mg/Kg			02/16/22 23:17	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-2

Lab Sample ID: 880-11152-6

Date Collected: 02/08/22 11:30

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 15:02	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 15:02	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 15:02	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/11/22 09:59	02/12/22 15:02	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 15:02	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/11/22 09:59	02/12/22 15:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	02/11/22 09:59	02/12/22 15:02	1
1,4-Difluorobenzene (Surr)	78		70 - 130	02/11/22 09:59	02/12/22 15:02	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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 16:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 16:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 16:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	86		70 - 130	02/10/22 14:26	02/11/22 16:48	1
o-Terphenyl (Surr)	93		70 - 130	02/10/22 14:26	02/11/22 16:48	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7010		99.4	mg/Kg			02/16/22 02:13	20

Client Sample ID: S-2

Lab Sample ID: 880-11152-7

Date Collected: 02/08/22 11:32

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/11/22 09:59	02/12/22 15:22	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/11/22 09:59	02/12/22 15:22	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/11/22 09:59	02/12/22 15:22	1
m,p-Xylenes	<0.00396	U	0.00396	mg/Kg		02/11/22 09:59	02/12/22 15:22	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/11/22 09:59	02/12/22 15:22	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/11/22 09:59	02/12/22 15:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	02/11/22 09:59	02/12/22 15:22	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-2

Lab Sample ID: 880-11152-7

Date Collected: 02/08/22 11:32

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	105		70 - 130	02/11/22 09:59	02/12/22 15:22	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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 17:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 17:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 17:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	73		70 - 130			02/10/22 14:26	02/11/22 17:09	1
o-Terphenyl (Surr)	77		70 - 130			02/10/22 14:26	02/11/22 17:09	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6600		50.3	mg/Kg			02/16/22 02:22	10

Client Sample ID: S-2

Lab Sample ID: 880-11152-8

Date Collected: 02/08/22 11:36

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 2.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 15:43	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 15:43	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 15:43	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/11/22 09:59	02/12/22 15:43	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 15:43	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/22 09:59	02/12/22 15:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	02/11/22 09:59	02/12/22 15:43	1
1,4-Difluorobenzene (Surr)	106		70 - 130	02/11/22 09:59	02/12/22 15:43	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			02/14/22 09:32	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			02/17/22 15:56	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-2

Lab Sample ID: 880-11152-8

Date Collected: 02/08/22 11:36

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 2.0'

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		02/10/22 14:26	02/11/22 17:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 17:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 17:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	71		70 - 130			02/10/22 14:26	02/11/22 17:30	1
o-Terphenyl (Surr)	74		70 - 130			02/10/22 14:26	02/11/22 17:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1600		25.0	mg/Kg			02/16/22 02:31	5

Client Sample ID: S-2

Lab Sample ID: 880-11152-9

Date Collected: 02/08/22 11:38

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 3.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 16:03	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 16:03	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 16:03	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/11/22 09:59	02/12/22 16:03	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 16:03	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/11/22 09:59	02/12/22 16:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130			02/11/22 09:59	02/12/22 16:03	1
1,4-Difluorobenzene (Surr)	87		70 - 130			02/11/22 09:59	02/12/22 16:03	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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 17:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 17:51	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 17:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	70		70 - 130			02/10/22 14:26	02/11/22 17:51	1
o-Terphenyl (Surr)	74		70 - 130			02/10/22 14:26	02/11/22 17:51	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-2

Lab Sample ID: 880-11152-9

Date Collected: 02/08/22 11:38

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 3.0'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	335		4.98	mg/Kg			02/16/22 02:40	1

Client Sample ID: S-2

Lab Sample ID: 880-11152-10

Date Collected: 02/08/22 11:40

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 4.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 16:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 16:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 16:24	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/11/22 09:59	02/12/22 16:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 16:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/11/22 09:59	02/12/22 16:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			02/11/22 09:59	02/12/22 16:24	1
1,4-Difluorobenzene (Surr)	94		70 - 130			02/11/22 09:59	02/12/22 16:24	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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 18:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 18:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 18:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	69	S1-	70 - 130			02/10/22 14:26	02/11/22 18:13	1
o-Terphenyl (Surr)	73		70 - 130			02/10/22 14:26	02/11/22 18:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	137		4.95	mg/Kg			02/16/22 02:48	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-3

Lab Sample ID: 880-11152-11

Date Collected: 02/08/22 11:45

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 18:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 18:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 18:14	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/11/22 09:59	02/12/22 18:14	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 18:14	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/11/22 09:59	02/12/22 18:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	02/11/22 09:59	02/12/22 18:14	1
1,4-Difluorobenzene (Surr)	63	S1-	70 - 130	02/11/22 09:59	02/12/22 18:14	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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 18:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 18:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 18:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	72		70 - 130	02/10/22 14:26	02/11/22 18:56	1
o-Terphenyl (Surr)	75		70 - 130	02/10/22 14:26	02/11/22 18:56	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6580		99.4	mg/Kg			02/16/22 02:57	20

Client Sample ID: S-3

Lab Sample ID: 880-11152-12

Date Collected: 02/08/22 11:47

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/11/22 09:59	02/12/22 18:34	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/11/22 09:59	02/12/22 18:34	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/11/22 09:59	02/12/22 18:34	1
m,p-Xylenes	<0.00404	U	0.00404	mg/Kg		02/11/22 09:59	02/12/22 18:34	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/11/22 09:59	02/12/22 18:34	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/11/22 09:59	02/12/22 18:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	02/11/22 09:59	02/12/22 18:34	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-3

Lab Sample ID: 880-11152-12

Date Collected: 02/08/22 11:47

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	89		70 - 130	02/11/22 09:59	02/12/22 18:34	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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 19:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 19:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 19:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	75		70 - 130			02/10/22 14:26	02/11/22 19:17	1
o-Terphenyl (Surr)	79		70 - 130			02/10/22 14:26	02/11/22 19:17	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8020		99.8	mg/Kg			02/16/22 03:06	20

Client Sample ID: S-3

Lab Sample ID: 880-11152-13

Date Collected: 02/08/22 11:50

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 2.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 18:55	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 18:55	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 18:55	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/11/22 09:59	02/12/22 18:55	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 18:55	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/22 09:59	02/12/22 18:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	02/11/22 09:59	02/12/22 18:55	1
1,4-Difluorobenzene (Surr)	96		70 - 130	02/11/22 09:59	02/12/22 18:55	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			02/14/22 09:32	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			02/17/22 15:56	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-3

Lab Sample ID: 880-11152-13

Date Collected: 02/08/22 11:50

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 2.0'

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		02/10/22 14:26	02/11/22 19:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 19:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 19:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	72		70 - 130			02/10/22 14:26	02/11/22 19:38	1
o-Terphenyl (Surr)	76		70 - 130			02/10/22 14:26	02/11/22 19:38	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7370		101	mg/Kg			02/18/22 02:45	20

Client Sample ID: S-3

Lab Sample ID: 880-11152-14

Date Collected: 02/08/22 11:55

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 3.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/11/22 09:59	02/12/22 19:15	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/11/22 09:59	02/12/22 19:15	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/11/22 09:59	02/12/22 19:15	1
m,p-Xylenes	<0.00397	U	0.00397	mg/Kg		02/11/22 09:59	02/12/22 19:15	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/11/22 09:59	02/12/22 19:15	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		02/11/22 09:59	02/12/22 19:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			02/11/22 09:59	02/12/22 19:15	1
1,4-Difluorobenzene (Surr)	89		70 - 130			02/11/22 09:59	02/12/22 19:15	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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 19:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 19:58	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 19:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	73		70 - 130			02/10/22 14:26	02/11/22 19:58	1
o-Terphenyl (Surr)	77		70 - 130			02/10/22 14:26	02/11/22 19:58	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-3

Lab Sample ID: 880-11152-14

Date Collected: 02/08/22 11:55

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 3.0'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1520		49.8	mg/Kg			02/18/22 03:04	10

Client Sample ID: S-3

Lab Sample ID: 880-11152-15

Date Collected: 02/08/22 12:00

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 4.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 19:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 19:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 19:36	1
m,p-Xylenes	<0.00399	U	0.00399	mg/Kg		02/11/22 09:59	02/12/22 19:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 19:36	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/11/22 09:59	02/12/22 19:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			02/11/22 09:59	02/12/22 19:36	1
1,4-Difluorobenzene (Surr)	94		70 - 130			02/11/22 09:59	02/12/22 19:36	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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 20:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 20:19	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 20:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	75		70 - 130			02/10/22 14:26	02/11/22 20:19	1
o-Terphenyl (Surr)	78		70 - 130			02/10/22 14:26	02/11/22 20:19	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	111		4.95	mg/Kg			02/18/22 03:10	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-4

Lab Sample ID: 880-11152-16

Date Collected: 02/08/22 12:17

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/11/22 09:59	02/12/22 19:56	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/11/22 09:59	02/12/22 19:56	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/11/22 09:59	02/12/22 19:56	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		02/11/22 09:59	02/12/22 19:56	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/11/22 09:59	02/12/22 19:56	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/11/22 09:59	02/12/22 19:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	02/11/22 09:59	02/12/22 19:56	1
1,4-Difluorobenzene (Surr)	96		70 - 130	02/11/22 09:59	02/12/22 19:56	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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 20:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 20:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 20:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	73		70 - 130	02/10/22 14:26	02/11/22 20:40	1
o-Terphenyl (Surr)	76		70 - 130	02/10/22 14:26	02/11/22 20:40	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8900		100	mg/Kg			02/18/22 03:17	20

Client Sample ID: S-4

Lab Sample ID: 880-11152-17

Date Collected: 02/08/22 12:20

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 20:17	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 20:17	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 20:17	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/11/22 09:59	02/12/22 20:17	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/22 09:59	02/12/22 20:17	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/22 09:59	02/12/22 20:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	02/11/22 09:59	02/12/22 20:17	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-4

Lab Sample ID: 880-11152-17

Date Collected: 02/08/22 12:20

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	89		70 - 130	02/11/22 09:59	02/12/22 20:17	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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 21:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 21:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 21:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	77		70 - 130			02/10/22 14:26	02/11/22 21:02	1
o-Terphenyl (Surr)	81		70 - 130			02/10/22 14:26	02/11/22 21:02	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	556		4.99	mg/Kg			02/18/22 03:23	1

Client Sample ID: S-4

Lab Sample ID: 880-11152-18

Date Collected: 02/08/22 12:22

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 2.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 20:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 20:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 20:37	1
m,p-Xylenes	<0.00401	U	0.00401	mg/Kg		02/11/22 09:59	02/12/22 20:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 20:37	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/11/22 09:59	02/12/22 20:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130	02/11/22 09:59	02/12/22 20:37	1
1,4-Difluorobenzene (Surr)	83		70 - 130	02/11/22 09:59	02/12/22 20:37	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			02/14/22 09:32	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			02/17/22 15:56	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-4

Lab Sample ID: 880-11152-18

Date Collected: 02/08/22 12:22

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 2.0'

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		02/10/22 14:26	02/11/22 21:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 21:24	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:26	02/11/22 21:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	72		70 - 130			02/10/22 14:26	02/11/22 21:24	1
o-Terphenyl (Surr)	76		70 - 130			02/10/22 14:26	02/11/22 21:24	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	432		24.8	mg/Kg			02/18/22 03:42	5

Client Sample ID: S-4

Lab Sample ID: 880-11152-19

Date Collected: 02/08/22 12:25

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 3.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/11/22 09:59	02/12/22 20:57	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/11/22 09:59	02/12/22 20:57	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/11/22 09:59	02/12/22 20:57	1
m,p-Xylenes	<0.00403	U	0.00403	mg/Kg		02/11/22 09:59	02/12/22 20:57	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/11/22 09:59	02/12/22 20:57	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		02/11/22 09:59	02/12/22 20:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130			02/11/22 09:59	02/12/22 20:57	1
1,4-Difluorobenzene (Surr)	80		70 - 130			02/11/22 09:59	02/12/22 20:57	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			02/14/22 09:32	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			02/17/22 15:56	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		02/10/22 14:26	02/11/22 21:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 21:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 21:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	75		70 - 130			02/10/22 14:26	02/11/22 21:44	1
o-Terphenyl (Surr)	79		70 - 130			02/10/22 14:26	02/11/22 21:44	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-4

Lab Sample ID: 880-11152-19

Date Collected: 02/08/22 12:25

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 3.0'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	337		24.9	mg/Kg			02/18/22 03:48	5

Client Sample ID: S-4

Lab Sample ID: 880-11152-20

Date Collected: 02/08/22 12:27

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 4.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/11/22 09:59	02/12/22 21:18	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/11/22 09:59	02/12/22 21:18	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/11/22 09:59	02/12/22 21:18	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		02/11/22 09:59	02/12/22 21:18	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/11/22 09:59	02/12/22 21:18	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/11/22 09:59	02/12/22 21:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130			02/11/22 09:59	02/12/22 21:18	1
1,4-Difluorobenzene (Surr)	82		70 - 130			02/11/22 09:59	02/12/22 21:18	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			02/14/22 09:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	63.4		49.8	mg/Kg			02/17/22 15:56	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	<49.8	U	49.8	mg/Kg		02/10/22 14:26	02/11/22 22:05	1
Diesel Range Organics (Over C10-C28)	63.4		49.8	mg/Kg		02/10/22 14:26	02/11/22 22:05	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/10/22 14:26	02/11/22 22:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	78		70 - 130			02/10/22 14:26	02/11/22 22:05	1
o-Terphenyl (Surr)	82		70 - 130			02/10/22 14:26	02/11/22 22:05	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	177		4.96	mg/Kg			02/18/22 03:55	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-5

Lab Sample ID: 880-11152-21

Date Collected: 02/08/22 12:35

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/11/22 11:13	02/12/22 03:43	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/11/22 11:13	02/12/22 03:43	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/11/22 11:13	02/12/22 03:43	1
m,p-Xylenes	<0.00404	U	0.00404	mg/Kg		02/11/22 11:13	02/12/22 03:43	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/11/22 11:13	02/12/22 03:43	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/11/22 11:13	02/12/22 03:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	02/11/22 11:13	02/12/22 03:43	1
1,4-Difluorobenzene (Surr)	97		70 - 130	02/11/22 11:13	02/12/22 03:43	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			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 11:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 11:55	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 11:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	91		70 - 130	02/10/22 14:29	02/13/22 11:55	1
o-Terphenyl (Surr)	90		70 - 130	02/10/22 14:29	02/13/22 11:55	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5360		100	mg/Kg			02/18/22 04:01	20

Client Sample ID: S-5

Lab Sample ID: 880-11152-22

Date Collected: 02/08/22 12:40

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/11/22 11:13	02/12/22 04:04	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/11/22 11:13	02/12/22 04:04	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/11/22 11:13	02/12/22 04:04	1
m,p-Xylenes	<0.00404	U	0.00404	mg/Kg		02/11/22 11:13	02/12/22 04:04	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/11/22 11:13	02/12/22 04:04	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/11/22 11:13	02/12/22 04:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	02/11/22 11:13	02/12/22 04:04	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-5

Lab Sample ID: 880-11152-22

Date Collected: 02/08/22 12:40

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	113		70 - 130	02/11/22 11:13	02/12/22 04:04	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			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 12:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:29	02/13/22 12:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:29	02/13/22 12:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	81		70 - 130			02/10/22 14:29	02/13/22 12:58	1
o-Terphenyl (Surr)	86		70 - 130			02/10/22 14:29	02/13/22 12:58	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	831		25.0	mg/Kg			02/18/22 04:07	5

Client Sample ID: S-5

Lab Sample ID: 880-11152-23

Date Collected: 02/08/22 12:45

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 2.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/11/22 11:13	02/12/22 04:24	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/22 11:13	02/12/22 04:24	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/22 11:13	02/12/22 04:24	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/11/22 11:13	02/12/22 04:24	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/22 11:13	02/12/22 04:24	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/22 11:13	02/12/22 04:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	02/11/22 11:13	02/12/22 04:24	1
1,4-Difluorobenzene (Surr)	84		70 - 130	02/11/22 11:13	02/12/22 04:24	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			02/14/22 09:43	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			02/15/22 13:20	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-5

Lab Sample ID: 880-11152-23

Date Collected: 02/08/22 12:45

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 2.0'

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		02/10/22 14:29	02/13/22 13:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 13:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 13:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	80		70 - 130			02/10/22 14:29	02/13/22 13:18	1
o-Terphenyl (Surr)	85		70 - 130			02/10/22 14:29	02/13/22 13:18	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	696		4.97	mg/Kg			02/18/22 04:14	1

Client Sample ID: S-5

Lab Sample ID: 880-11152-24

Date Collected: 02/08/22 12:50

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 3.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/11/22 11:13	02/12/22 04:45	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/22 11:13	02/12/22 04:45	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/22 11:13	02/12/22 04:45	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/11/22 11:13	02/12/22 04:45	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/22 11:13	02/12/22 04:45	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/22 11:13	02/12/22 04:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130			02/11/22 11:13	02/12/22 04:45	1
1,4-Difluorobenzene (Surr)	71		70 - 130			02/11/22 11:13	02/12/22 04:45	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			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 13:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:29	02/13/22 13:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:29	02/13/22 13:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	85		70 - 130			02/10/22 14:29	02/13/22 13:39	1
o-Terphenyl (Surr)	90		70 - 130			02/10/22 14:29	02/13/22 13:39	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-5

Lab Sample ID: 880-11152-24

Date Collected: 02/08/22 12:50

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 3.0'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	191		4.95	mg/Kg			02/18/22 04:33	1

Client Sample ID: S-5

Lab Sample ID: 880-11152-25

Date Collected: 02/08/22 13:00

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 4.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/11/22 11:13	02/12/22 05:05	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/22 11:13	02/12/22 05:05	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/22 11:13	02/12/22 05:05	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/11/22 11:13	02/12/22 05:05	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/22 11:13	02/12/22 05:05	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/22 11:13	02/12/22 05:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130			02/11/22 11:13	02/12/22 05:05	1
1,4-Difluorobenzene (Surr)	99		70 - 130			02/11/22 11:13	02/12/22 05:05	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			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 14:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:29	02/13/22 14:00	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:29	02/13/22 14:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	79		70 - 130			02/10/22 14:29	02/13/22 14:00	1
o-Terphenyl (Surr)	85		70 - 130			02/10/22 14:29	02/13/22 14:00	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	196		4.98	mg/Kg			02/18/22 04:39	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-6

Lab Sample ID: 880-11152-26

Date Collected: 02/08/22 11:39

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/11/22 11:13	02/12/22 05:26	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/11/22 11:13	02/12/22 05:26	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/11/22 11:13	02/12/22 05:26	1
m,p-Xylenes	<0.00396	U	0.00396	mg/Kg		02/11/22 11:13	02/12/22 05:26	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/11/22 11:13	02/12/22 05:26	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/11/22 11:13	02/12/22 05:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	02/11/22 11:13	02/12/22 05:26	1
1,4-Difluorobenzene (Surr)	109		70 - 130	02/11/22 11:13	02/12/22 05:26	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			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 14:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 14:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 14:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	85		70 - 130	02/10/22 14:29	02/13/22 14:20	1
o-Terphenyl (Surr)	92		70 - 130	02/10/22 14:29	02/13/22 14:20	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	790		49.9	mg/Kg			02/18/22 04:58	10

Client Sample ID: S-6

Lab Sample ID: 880-11152-27

Date Collected: 02/08/22 11:40

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 11:13	02/12/22 05:46	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 11:13	02/12/22 05:46	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 11:13	02/12/22 05:46	1
m,p-Xylenes	<0.00399	U	0.00399	mg/Kg		02/11/22 11:13	02/12/22 05:46	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 11:13	02/12/22 05:46	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/11/22 11:13	02/12/22 05:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	02/11/22 11:13	02/12/22 05:46	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-6

Lab Sample ID: 880-11152-27

Date Collected: 02/08/22 11:40

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	103		70 - 130	02/11/22 11:13	02/12/22 05:46	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			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 14:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 14:41	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 14:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	104		70 - 130			02/10/22 14:29	02/13/22 14:41	1
o-Terphenyl (Surr)	109		70 - 130			02/10/22 14:29	02/13/22 14:41	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34.5		5.04	mg/Kg			02/18/22 05:05	1

Client Sample ID: S-7

Lab Sample ID: 880-11152-28

Date Collected: 02/08/22 11:45

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/11/22 11:13	02/12/22 06:07	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/11/22 11:13	02/12/22 06:07	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/11/22 11:13	02/12/22 06:07	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		02/11/22 11:13	02/12/22 06:07	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/11/22 11:13	02/12/22 06:07	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/11/22 11:13	02/12/22 06:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	02/11/22 11:13	02/12/22 06:07	1
1,4-Difluorobenzene (Surr)	106		70 - 130	02/11/22 11:13	02/12/22 06:07	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			02/14/22 09:43	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			02/15/22 13:20	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-7

Lab Sample ID: 880-11152-28

Date Collected: 02/08/22 11:45

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 0.5'

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		02/10/22 14:29	02/13/22 15:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:29	02/13/22 15:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:29	02/13/22 15:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	79		70 - 130			02/10/22 14:29	02/13/22 15:01	1
o-Terphenyl (Surr)	86		70 - 130			02/10/22 14:29	02/13/22 15:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.63		4.95	mg/Kg			02/18/22 05:11	1

Client Sample ID: S-7

Lab Sample ID: 880-11152-29

Date Collected: 02/08/22 11:46

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/10/22 11:07	02/12/22 06:44	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/22 11:07	02/12/22 06:44	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/22 11:07	02/12/22 06:44	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/10/22 11:07	02/12/22 06:44	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/22 11:07	02/12/22 06:44	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/10/22 11:07	02/12/22 06:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			02/10/22 11:07	02/12/22 06:44	1
1,4-Difluorobenzene (Surr)	100		70 - 130			02/10/22 11:07	02/12/22 06:44	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			02/14/22 08:59	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 15:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:29	02/13/22 15:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:29	02/13/22 15:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	81		70 - 130			02/10/22 14:29	02/13/22 15:22	1
o-Terphenyl (Surr)	87		70 - 130			02/10/22 14:29	02/13/22 15:22	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-7

Lab Sample ID: 880-11152-29

Date Collected: 02/08/22 11:46

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.29		5.05	mg/Kg			02/18/22 05:17	1

Client Sample ID: S-8

Lab Sample ID: 880-11152-30

Date Collected: 02/08/22 11:50

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/10/22 11:07	02/12/22 07:12	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/22 11:07	02/12/22 07:12	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/22 11:07	02/12/22 07:12	1
m,p-Xylenes	<0.00399	U	0.00399	mg/Kg		02/10/22 11:07	02/12/22 07:12	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/22 11:07	02/12/22 07:12	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/10/22 11:07	02/12/22 07:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			02/10/22 11:07	02/12/22 07:12	1
1,4-Difluorobenzene (Surr)	99		70 - 130			02/10/22 11:07	02/12/22 07:12	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			02/14/22 08:59	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 15:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 15:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 15:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	68	S1-	70 - 130			02/10/22 14:29	02/13/22 15:43	1
o-Terphenyl (Surr)	75		70 - 130			02/10/22 14:29	02/13/22 15:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2990		49.8	mg/Kg			02/18/22 05:24	10

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-8

Lab Sample ID: 880-11152-31

Date Collected: 02/08/22 11:51

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U F1	0.00201	mg/Kg		02/11/22 16:00	02/12/22 09:30	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/11/22 16:00	02/12/22 09:30	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/11/22 16:00	02/12/22 09:30	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		02/11/22 16:00	02/12/22 09:30	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/11/22 16:00	02/12/22 09:30	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/11/22 16:00	02/12/22 09:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	02/11/22 16:00	02/12/22 09:30	1
1,4-Difluorobenzene (Surr)	83		70 - 130	02/11/22 16:00	02/12/22 09:30	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			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 16:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 14:29	02/13/22 16:24	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 14:29	02/13/22 16:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	75		70 - 130	02/10/22 14:29	02/13/22 16:24	1
o-Terphenyl (Surr)	81		70 - 130	02/10/22 14:29	02/13/22 16:24	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3540		50.0	mg/Kg			02/18/22 05:30	10

Client Sample ID: S-9

Lab Sample ID: 880-11152-32

Date Collected: 02/08/22 11:55

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 09:51	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 09:51	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 09:51	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/11/22 16:00	02/12/22 09:51	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 09:51	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/11/22 16:00	02/12/22 09:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	02/11/22 16:00	02/12/22 09:51	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-9

Lab Sample ID: 880-11152-32

Date Collected: 02/08/22 11:55

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 0.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	122		70 - 130	02/11/22 16:00	02/12/22 09:51	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			02/14/22 09:43	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			02/15/22 13:20	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		02/10/22 14:29	02/13/22 16:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 16:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 16:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	73		70 - 130			02/10/22 14:29	02/13/22 16:44	1
o-Terphenyl (Surr)	79		70 - 130			02/10/22 14:29	02/13/22 16:44	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28.1		5.00	mg/Kg			02/18/22 05:36	1

Client Sample ID: S-9

Lab Sample ID: 880-11152-33

Date Collected: 02/08/22 11:56

Matrix: Solid

Date Received: 02/10/22 09:00

Sample Depth: 1.0'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 10:11	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 10:11	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 10:11	1
m,p-Xylenes	<0.00399	U	0.00399	mg/Kg		02/11/22 16:00	02/12/22 10:11	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 10:11	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/11/22 16:00	02/12/22 10:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	02/11/22 16:00	02/12/22 10:11	1
1,4-Difluorobenzene (Surr)	103		70 - 130	02/11/22 16:00	02/12/22 10:11	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			02/14/22 09:43	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			02/17/22 15:56	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-9
Date Collected: 02/08/22 11:56
Date Received: 02/10/22 09:00
Sample Depth: 1.0'

Lab Sample ID: 880-11152-33
Matrix: Solid

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		02/10/22 11:25	02/12/22 05:17	1	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/10/22 11:25	02/12/22 05:17	1	
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/10/22 11:25	02/12/22 05:17	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane (Surr)	92		70 - 130			02/10/22 11:25	02/12/22 05:17	1	
o-Terphenyl (Surr)	92		70 - 130			02/10/22 11:25	02/12/22 05:17	1	

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	2410	F1	25.0	mg/Kg			02/18/22 09:30	5	

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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)
880-11151-A-1-A MS	Matrix Spike	102	89
880-11151-A-1-B MSD	Matrix Spike Duplicate	354 S1+	869 S1+
880-11152-1	S-1	99	86
880-11152-1 MS	S-1	120	79
880-11152-1 MSD	S-1	112	90
880-11152-2	S-1	96	88
880-11152-3	S-1	110	104
880-11152-4	S-1	106	89
880-11152-5	S-1	106	101
880-11152-6	S-2	87	78
880-11152-7	S-2	100	105
880-11152-8	S-2	93	106
880-11152-9	S-2	102	87
880-11152-10	S-2	104	94
880-11152-11	S-3	112	63 S1-
880-11152-12	S-3	101	89
880-11152-13	S-3	108	96
880-11152-14	S-3	105	89
880-11152-15	S-3	112	94
880-11152-16	S-4	100	96
880-11152-17	S-4	100	89
880-11152-18	S-4	82	83
880-11152-19	S-4	84	80
880-11152-20	S-4	98	82
880-11152-21	S-5	108	97
880-11152-22	S-5	114	113
880-11152-23	S-5	106	84
880-11152-24	S-5	111	71
880-11152-25	S-5	97	99
880-11152-26	S-6	105	109
880-11152-27	S-6	97	103
880-11152-28	S-7	99	106
880-11152-29	S-7	103	100
880-11152-30	S-8	108	99
880-11152-31	S-8	103	83
880-11152-31 MS	S-8	109	99
880-11152-31 MSD	S-8	106	114
880-11152-32	S-9	118	122
880-11152-33	S-9	94	103
LCS 880-19023/1-A	Lab Control Sample	113	98
LCS 880-19034/1-A	Lab Control Sample	107	85
LCS 880-19035/1-A	Lab Control Sample	107	114
LCS 880-19036/1-A	Lab Control Sample	93	106
LCSD 880-19023/2-A	Lab Control Sample Dup	101	93
LCSD 880-19034/2-A	Lab Control Sample Dup	105	104
LCSD 880-19035/2-A	Lab Control Sample Dup	102	101
LCSD 880-19036/2-A	Lab Control Sample Dup	97	88
MB 880-18969/5-A	Method Blank	69 S1-	97
MB 880-19021/5-A	Method Blank	130	103

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Surrogate Summary

Client: Larson & Associates, Inc.

Job ID: 880-11152-1

Project/Site: Gravitas SWD

SDG: 22-0105-03

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
MB 880-19023/5-A	Method Blank	124	98
MB 880-19034/5-A	Method Blank	80	83
MB 880-19035/5-A	Method Blank	89	100
MB 880-19036/5-A	Method Blank	104	104
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)
880-11144-A-1-E MS	Matrix Spike	87	84
880-11144-A-1-F MSD	Matrix Spike Duplicate	78	75
880-11152-1	S-1	73	77
880-11152-1 MS	S-1	70	61 S1-
880-11152-1 MSD	S-1	72	66 S1-
880-11152-2	S-1	73	77
880-11152-3	S-1	72	77
880-11152-4	S-1	72	77
880-11152-5	S-1	69 S1-	72
880-11152-6	S-2	86	93
880-11152-7	S-2	73	77
880-11152-8	S-2	71	74
880-11152-9	S-2	70	74
880-11152-10	S-2	69 S1-	73
880-11152-11	S-3	72	75
880-11152-12	S-3	75	79
880-11152-13	S-3	72	76
880-11152-14	S-3	73	77
880-11152-15	S-3	75	78
880-11152-16	S-4	73	76
880-11152-17	S-4	77	81
880-11152-18	S-4	72	76
880-11152-19	S-4	75	79
880-11152-20	S-4	78	82
880-11152-21	S-5	91	90
880-11152-21 MS	S-5	63 S1-	63 S1-
880-11152-21 MSD	S-5	65 S1-	64 S1-
880-11152-22	S-5	81	86
880-11152-23	S-5	80	85
880-11152-24	S-5	85	90
880-11152-25	S-5	79	85
880-11152-26	S-6	85	92
880-11152-27	S-6	104	109
880-11152-28	S-7	79	86
880-11152-29	S-7	81	87
880-11152-30	S-8	68 S1-	75

Eurofins Midland

Surrogate Summary

Client: Larson & Associates, Inc.

Job ID: 880-11152-1

Project/Site: Gravitas SWD

SDG: 22-0105-03

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)
880-11152-31	S-8	75	81
880-11152-32	S-9	73	79
880-11152-33	S-9	92	92
LCS 880-19054/2-A	Lab Control Sample	96	92
LCSD 880-19054/3-A	Lab Control Sample Dup	96	92
MB 880-19054/1-A	Method Blank	66 S1-	70
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 880-19037/2-A	Lab Control Sample	99	92
LCS 880-19055/2-A	Lab Control Sample	95	106
LCSD 880-19037/3-A	Lab Control Sample Dup	90	88
LCSD 880-19055/3-A	Lab Control Sample Dup	106	114
MB 880-19037/1-A	Method Blank	81	80
MB 880-19055/1-A	Method Blank	78	82
Surrogate Legend			
1CO = 1-Chlorooctane (Surr)			
OTPH = o-Terphenyl (Surr)			

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-18969/5-A

Matrix: Solid

Analysis Batch: 19027

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 18969

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/10/22 08:36	02/11/22 06:22	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/22 08:36	02/11/22 06:22	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/22 08:36	02/11/22 06:22	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/10/22 08:36	02/11/22 06:22	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/22 08:36	02/11/22 06:22	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/10/22 08:36	02/11/22 06:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	69	S1-	70 - 130	02/10/22 08:36	02/11/22 06:22	1
1,4-Difluorobenzene (Surr)	97		70 - 130	02/10/22 08:36	02/11/22 06:22	1

Lab Sample ID: MB 880-19021/5-A

Matrix: Solid

Analysis Batch: 19117

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19021

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 08:30	02/12/22 01:15	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 08:30	02/12/22 01:15	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 08:30	02/12/22 01:15	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/11/22 08:30	02/12/22 01:15	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 08:30	02/12/22 01:15	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/11/22 08:30	02/12/22 01:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130	02/11/22 08:30	02/12/22 01:15	1
1,4-Difluorobenzene (Surr)	103		70 - 130	02/11/22 08:30	02/12/22 01:15	1

Lab Sample ID: MB 880-19023/5-A

Matrix: Solid

Analysis Batch: 19117

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19023

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 12:51	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 12:51	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 12:51	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/11/22 09:59	02/12/22 12:51	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 09:59	02/12/22 12:51	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/11/22 09:59	02/12/22 12:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	02/11/22 09:59	02/12/22 12:51	1
1,4-Difluorobenzene (Surr)	98		70 - 130	02/11/22 09:59	02/12/22 12:51	1

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QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: LCS 880-19023/1-A

Matrix: Solid

Analysis Batch: 19117

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19023

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09465		mg/Kg		95	70 - 130
Toluene	0.100	0.1028		mg/Kg		103	70 - 130
Ethylbenzene	0.100	0.1078		mg/Kg		108	70 - 130
m,p-Xylenes	0.200	0.2046		mg/Kg		102	70 - 130
o-Xylene	0.100	0.1017		mg/Kg		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-19023/2-A

Matrix: Solid

Analysis Batch: 19117

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19023

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.07792		mg/Kg		78	70 - 130	19	35
Toluene	0.100	0.08710		mg/Kg		87	70 - 130	17	35
Ethylbenzene	0.100	0.09355		mg/Kg		94	70 - 130	14	35
m,p-Xylenes	0.200	0.1806		mg/Kg		90	70 - 130	12	35
o-Xylene	0.100	0.08661		mg/Kg		87	70 - 130	16	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 880-11152-1 MS

Matrix: Solid

Analysis Batch: 19117

Client Sample ID: S-1

Prep Type: Total/NA

Prep Batch: 19023

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U F1 F2	0.0996	0.05318	F1	mg/Kg		53	70 - 130
Toluene	<0.00199	U	0.0996	0.07038		mg/Kg		71	70 - 130
Ethylbenzene	<0.00199	U	0.0996	0.07407		mg/Kg		74	70 - 130
m,p-Xylenes	<0.00398	U F1	0.199	0.1210	F1	mg/Kg		61	70 - 130
o-Xylene	<0.00199	U F1	0.0996	0.06267	F1	mg/Kg		63	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	79		70 - 130

Lab Sample ID: 880-11152-1 MSD

Matrix: Solid

Analysis Batch: 19117

Client Sample ID: S-1

Prep Type: Total/NA

Prep Batch: 19023

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1 F2	0.0998	0.07733	F2	mg/Kg		77	70 - 130	37	35
Toluene	<0.00199	U	0.0998	0.08056		mg/Kg		81	70 - 130	13	35
Ethylbenzene	<0.00199	U	0.0998	0.08292		mg/Kg		83	70 - 130	11	35

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QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: 880-11152-1 MSD

Matrix: Solid

Analysis Batch: 19117

Client Sample ID: S-1

Prep Type: Total/NA

Prep Batch: 19023

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m,p-Xylenes	<0.00398	U F1	0.200	0.1579		mg/Kg		79	70 - 130	26	35
o-Xylene	<0.00199	U F1	0.0998	0.07717		mg/Kg		77	70 - 130	21	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	112		70 - 130								
1,4-Difluorobenzene (Surr)	90		70 - 130								

Lab Sample ID: MB 880-19034/5-A

Matrix: Solid

Analysis Batch: 19027

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19034

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/10/22 11:07	02/11/22 20:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/22 11:07	02/11/22 20:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/22 11:07	02/11/22 20:49	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/10/22 11:07	02/11/22 20:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/22 11:07	02/11/22 20:49	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/10/22 11:07	02/11/22 20:49	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130			02/10/22 11:07	02/11/22 20:49	1
1,4-Difluorobenzene (Surr)	83		70 - 130			02/10/22 11:07	02/11/22 20:49	1

Lab Sample ID: LCS 880-19034/1-A

Matrix: Solid

Analysis Batch: 19027

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19034

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Benzene	0.100	0.09037		mg/Kg		90	70 - 130	
Toluene	0.100	0.08837		mg/Kg		88	70 - 130	
Ethylbenzene	0.100	0.08677		mg/Kg		87	70 - 130	
m,p-Xylenes	0.200	0.1843		mg/Kg		92	70 - 130	
o-Xylene	0.100	0.09916		mg/Kg		99	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	107		70 - 130					
1,4-Difluorobenzene (Surr)	85		70 - 130					

Lab Sample ID: LCSD 880-19034/2-A

Matrix: Solid

Analysis Batch: 19027

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19034

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08945		mg/Kg		89	70 - 130	1	35
Toluene	0.100	0.08494		mg/Kg		85	70 - 130	4	35
Ethylbenzene	0.100	0.08443		mg/Kg		84	70 - 130	3	35
m,p-Xylenes	0.200	0.1750		mg/Kg		87	70 - 130	5	35
o-Xylene	0.100	0.09265		mg/Kg		93	70 - 130	7	35

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QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 880-11151-A-1-A MS

Matrix: Solid

Analysis Batch: 19027

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 19034

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00201	U F2 F1	0.101	0.04750	F1	mg/Kg		47	70 - 130
Toluene	<0.00201	U F1	0.101	0.05238	F1	mg/Kg		52	70 - 130
Ethylbenzene	<0.00201	U F2 F1	0.101	0.05893	F1	mg/Kg		59	70 - 130
m,p-Xylenes	<0.00402	U F2 F1	0.201	0.1171	F1	mg/Kg		58	70 - 130
o-Xylene	<0.00201	U F2 F1	0.101	0.06412	F1	mg/Kg		64	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: 880-11151-A-1-B MSD

Matrix: Solid

Analysis Batch: 19027

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 19034

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	<0.00201	U F2 F1	0.101	0.02609	F2 F1	mg/Kg		26	70 - 130	58	35
Toluene	<0.00201	U F1	0.101	0.04610	F1	mg/Kg		46	70 - 130	13	35
Ethylbenzene	<0.00201	U F2 F1	0.101	0.02913	F2 F1	mg/Kg		29	70 - 130	68	35
m,p-Xylenes	<0.00402	U F2 F1	0.202	0.01712	F2 F1	mg/Kg		8	70 - 130	149	35
o-Xylene	<0.00201	U F2 F1	0.101	0.1538	F1 F2	mg/Kg		152	70 - 130	82	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	354	S1+	70 - 130
1,4-Difluorobenzene (Surr)	869	S1+	70 - 130

Lab Sample ID: MB 880-19035/5-A

Matrix: Solid

Analysis Batch: 19116

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19035

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 11:13	02/11/22 22:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 11:13	02/11/22 22:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 11:13	02/11/22 22:14	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/11/22 11:13	02/11/22 22:14	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 11:13	02/11/22 22:14	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/11/22 11:13	02/11/22 22:14	1

	MB	MB						
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
4-Bromofluorobenzene (Surr)	89		70 - 130	02/11/22 11:13	02/11/22 22:14	1		
1,4-Difluorobenzene (Surr)	100		70 - 130	02/11/22 11:13	02/11/22 22:14	1		

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QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: LCS 880-19035/1-A

Matrix: Solid

Analysis Batch: 19116

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19035

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1024		mg/Kg		102	70 - 130
Toluene	0.100	0.09663		mg/Kg		97	70 - 130
Ethylbenzene	0.100	0.1024		mg/Kg		102	70 - 130
m,p-Xylenes	0.200	0.2128		mg/Kg		106	70 - 130
o-Xylene	0.100	0.1063		mg/Kg		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	114		70 - 130

Lab Sample ID: LCSD 880-19035/2-A

Matrix: Solid

Analysis Batch: 19116

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19035

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09526		mg/Kg		95	70 - 130	7	35
Toluene	0.100	0.09416		mg/Kg		94	70 - 130	3	35
Ethylbenzene	0.100	0.09640		mg/Kg		96	70 - 130	6	35
m,p-Xylenes	0.200	0.1966		mg/Kg		98	70 - 130	8	35
o-Xylene	0.100	0.09795		mg/Kg		98	70 - 130	8	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: MB 880-19036/5-A

Matrix: Solid

Analysis Batch: 19116

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19036

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 09:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 09:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 09:09	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/11/22 16:00	02/12/22 09:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/22 16:00	02/12/22 09:09	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/11/22 16:00	02/12/22 09:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	02/11/22 16:00	02/12/22 09:09	1
1,4-Difluorobenzene (Surr)	104		70 - 130	02/11/22 16:00	02/12/22 09:09	1

Lab Sample ID: LCS 880-19036/1-A

Matrix: Solid

Analysis Batch: 19116

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19036

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09249		mg/Kg		92	70 - 130
Toluene	0.100	0.09207		mg/Kg		92	70 - 130

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: LCS 880-19036/1-A

Matrix: Solid

Analysis Batch: 19116

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19036

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	0.100	0.09926		mg/Kg		99	70 - 130
m,p-Xylenes	0.200	0.1837		mg/Kg		92	70 - 130
o-Xylene	0.100	0.09006		mg/Kg		90	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-19036/2-A

Matrix: Solid

Analysis Batch: 19116

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19036

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.08701		mg/Kg		87	70 - 130	6	35
Toluene	0.100	0.08975		mg/Kg		90	70 - 130	3	35
Ethylbenzene	0.100	0.09948		mg/Kg		99	70 - 130	0	35
m,p-Xylenes	0.200	0.1868		mg/Kg		93	70 - 130	2	35
o-Xylene	0.100	0.09313		mg/Kg		93	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

Lab Sample ID: 880-11152-31 MS

Matrix: Solid

Analysis Batch: 19116

Client Sample ID: S-8

Prep Type: Total/NA

Prep Batch: 19036

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00201	U F1	0.0998	0.06812	F1	mg/Kg		68	70 - 130
Toluene	<0.00201	U	0.0998	0.07261		mg/Kg		73	70 - 130
Ethylbenzene	<0.00201	U	0.0998	0.08506		mg/Kg		85	70 - 130
m,p-Xylenes	<0.00402	U	0.200	0.1566		mg/Kg		78	70 - 130
o-Xylene	<0.00201	U	0.0998	0.08036		mg/Kg		81	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 880-11152-31 MSD

Matrix: Solid

Analysis Batch: 19116

Client Sample ID: S-8

Prep Type: Total/NA

Prep Batch: 19036

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	<0.00201	U F1	0.0998	0.08550		mg/Kg		86	70 - 130	23	35
Toluene	<0.00201	U	0.0998	0.08578		mg/Kg		86	70 - 130	17	35
Ethylbenzene	<0.00201	U	0.0998	0.09057		mg/Kg		91	70 - 130	6	35
m,p-Xylenes	<0.00402	U	0.200	0.1705		mg/Kg		85	70 - 130	8	35
o-Xylene	<0.00201	U	0.0998	0.08550		mg/Kg		86	70 - 130	6	35

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	114		70 - 130

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

Lab Sample ID: MB 880-19037/1-A

Matrix: Solid

Analysis Batch: 19108

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19037

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/10/22 11:25	02/11/22 20:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 11:25	02/11/22 20:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 11:25	02/11/22 20:48	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1-Chlorooctane (Surr)	81		70 - 130			02/10/22 11:25	02/11/22 20:48	1
o-Terphenyl (Surr)	80		70 - 130			02/10/22 11:25	02/11/22 20:48	1

Lab Sample ID: LCS 880-19037/2-A

Matrix: Solid

Analysis Batch: 19108

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19037

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1007		mg/Kg		101	70 - 130
Diesel Range Organics (Over C10-C28)	1000	932.9		mg/Kg		93	70 - 130
Surrogate	LCS LCS		Limits				
	%Recovery	Qualifier					
1-Chlorooctane (Surr)	99		70 - 130				
o-Terphenyl (Surr)	92		70 - 130				

Lab Sample ID: LCSD 880-19037/3-A

Matrix: Solid

Analysis Batch: 19108

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19037

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	974.0		mg/Kg		97	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	875.8		mg/Kg		88	70 - 130	6	20
Surrogate	LCSD LCSD		Limits						
	%Recovery	Qualifier							
1-Chlorooctane (Surr)	90		70 - 130						
o-Terphenyl (Surr)	88		70 - 130						

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: 880-11144-A-1-E MS

Matrix: Solid

Analysis Batch: 19108

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 19037

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	1173		mg/Kg		115	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1015		mg/Kg		102	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane (Surr)	87		70 - 130						
o-Terphenyl (Surr)	84		70 - 130						

Lab Sample ID: 880-11144-A-1-F MSD

Matrix: Solid

Analysis Batch: 19108

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 19037

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	1109		mg/Kg		109	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	887.6		mg/Kg		89	70 - 130	13	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane (Surr)	78		70 - 130								
o-Terphenyl (Surr)	75		70 - 130								

Lab Sample ID: MB 880-19054/1-A

Matrix: Solid

Analysis Batch: 19105

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19054

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		02/10/22 14:26	02/11/22 11:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 11:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:26	02/11/22 11:20	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	66	S1-	70 - 130			02/10/22 14:26	02/11/22 11:20	1
o-Terphenyl (Surr)	70		70 - 130			02/10/22 14:26	02/11/22 11:20	1

Lab Sample ID: LCS 880-19054/2-A

Matrix: Solid

Analysis Batch: 19105

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19054

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	931.2		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	944.2		mg/Kg		94	70 - 130

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: LCS 880-19054/2-A

Matrix: Solid

Analysis Batch: 19105

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19054

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane (Surr)	96		70 - 130
o-Terphenyl (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-19054/3-A

Matrix: Solid

Analysis Batch: 19105

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19054

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	873.2		mg/Kg		87	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	882.7		mg/Kg		88	70 - 130	7	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane (Surr)	96		70 - 130
o-Terphenyl (Surr)	92		70 - 130

Lab Sample ID: 880-11152-1 MS

Matrix: Solid

Analysis Batch: 19105

Client Sample ID: S-1

Prep Type: Total/NA

Prep Batch: 19054

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	941.2		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	838.6		mg/Kg		84	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane (Surr)	70		70 - 130
o-Terphenyl (Surr)	61	S1-	70 - 130

Lab Sample ID: 880-11152-1 MSD

Matrix: Solid

Analysis Batch: 19105

Client Sample ID: S-1

Prep Type: Total/NA

Prep Batch: 19054

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	924.3		mg/Kg		93	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	860.0		mg/Kg		86	70 - 130	3	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane (Surr)	72		70 - 130
o-Terphenyl (Surr)	66	S1-	70 - 130

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: MB 880-19055/1-A

Matrix: Solid

Analysis Batch: 19245

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19055

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		02/10/22 14:29	02/13/22 10:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 10:50	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/10/22 14:29	02/13/22 10:50	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	78		70 - 130			02/10/22 14:29	02/13/22 10:50	1
o-Terphenyl (Surr)	82		70 - 130			02/10/22 14:29	02/13/22 10:50	1

Lab Sample ID: LCS 880-19055/2-A

Matrix: Solid

Analysis Batch: 19245

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19055

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	968.2		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	939.3		mg/Kg		94	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane (Surr)	95		70 - 130				
o-Terphenyl (Surr)	106		70 - 130				

Lab Sample ID: LCSD 880-19055/3-A

Matrix: Solid

Analysis Batch: 19245

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19055

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1021		mg/Kg		102	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	1008		mg/Kg		101	70 - 130	7	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane (Surr)	106		70 - 130						
o-Terphenyl (Surr)	114		70 - 130						

Lab Sample ID: 880-11152-21 MS

Matrix: Solid

Analysis Batch: 19245

Client Sample ID: S-5

Prep Type: Total/NA

Prep Batch: 19055

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	1053		mg/Kg		103	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	883.9		mg/Kg		88	70 - 130

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

Lab Sample ID: 880-11152-21 MS

Matrix: Solid

Analysis Batch: 19245

Client Sample ID: S-5

Prep Type: Total/NA

Prep Batch: 19055

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane (Surr)	63	S1-	70 - 130
o-Terphenyl (Surr)	63	S1-	70 - 130

Lab Sample ID: 880-11152-21 MSD

Matrix: Solid

Analysis Batch: 19245

Client Sample ID: S-5

Prep Type: Total/NA

Prep Batch: 19055

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	1045		mg/Kg		102	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	905.8		mg/Kg		91	70 - 130	2	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane (Surr)	65	S1-	70 - 130
o-Terphenyl (Surr)	64	S1-	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19066/1-A

Matrix: Solid

Analysis Batch: 19472

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			02/15/22 22:41	1

Lab Sample ID: LCS 880-19066/2-A

Matrix: Solid

Analysis Batch: 19472

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	244.6		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-19066/3-A

Matrix: Solid

Analysis Batch: 19472

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	245.1		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 880-11152-3 MS

Matrix: Solid

Analysis Batch: 19472

Client Sample ID: S-1

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	73.8		249	343.1		mg/Kg		108	90 - 110

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-11152-3 MSD

Matrix: Solid

Analysis Batch: 19472

Client Sample ID: S-1

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	73.8		249	343.2		mg/Kg		108	90 - 110	0	20

Lab Sample ID: MB 880-19067/1-A

Matrix: Solid

Analysis Batch: 19473

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			02/18/22 02:26	1

Lab Sample ID: LCS 880-19067/2-A

Matrix: Solid

Analysis Batch: 19473

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	267.5		mg/Kg		107	90 - 110

Lab Sample ID: LCSD 880-19067/3-A

Matrix: Solid

Analysis Batch: 19473

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	262.7		mg/Kg		105	90 - 110	2	20

Lab Sample ID: 880-11152-13 MS

Matrix: Solid

Analysis Batch: 19473

Client Sample ID: S-3

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7370		5050	12550		mg/Kg		103	90 - 110

Lab Sample ID: 880-11152-13 MSD

Matrix: Solid

Analysis Batch: 19473

Client Sample ID: S-3

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	7370		5050	12650		mg/Kg		104	90 - 110	1	20

Lab Sample ID: 880-11152-23 MS

Matrix: Solid

Analysis Batch: 19473

Client Sample ID: S-5

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	696		249	941.7		mg/Kg		99	90 - 110

Lab Sample ID: 880-11152-23 MSD

Matrix: Solid

Analysis Batch: 19473

Client Sample ID: S-5

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	696		249	944.5		mg/Kg		100	90 - 110	0	20

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QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19068/1-A

Matrix: Solid

Analysis Batch: 19479

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			02/18/22 09:11	1

Lab Sample ID: LCS 880-19068/2-A

Matrix: Solid

Analysis Batch: 19479

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	270.9		mg/Kg		108	90 - 110

Lab Sample ID: LCSD 880-19068/3-A

Matrix: Solid

Analysis Batch: 19479

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	262.6		mg/Kg		105	90 - 110	3	20

Lab Sample ID: 880-11152-33 MS

Matrix: Solid

Analysis Batch: 19479

Client Sample ID: S-9

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2410	F1	1250	3684		mg/Kg		102	90 - 110

Lab Sample ID: 880-11152-33 MSD

Matrix: Solid

Analysis Batch: 19479

Client Sample ID: S-9

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2410	F1	1250	3791	F1	mg/Kg		111	90 - 110	3	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

GC VOA

Prep Batch: 18969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-18969/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 19021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-19021/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 19023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Total/NA	Solid	5035	
880-11152-2	S-1	Total/NA	Solid	5035	
880-11152-3	S-1	Total/NA	Solid	5035	
880-11152-4	S-1	Total/NA	Solid	5035	
880-11152-5	S-1	Total/NA	Solid	5035	
880-11152-6	S-2	Total/NA	Solid	5035	
880-11152-7	S-2	Total/NA	Solid	5035	
880-11152-8	S-2	Total/NA	Solid	5035	
880-11152-9	S-2	Total/NA	Solid	5035	
880-11152-10	S-2	Total/NA	Solid	5035	
880-11152-11	S-3	Total/NA	Solid	5035	
880-11152-12	S-3	Total/NA	Solid	5035	
880-11152-13	S-3	Total/NA	Solid	5035	
880-11152-14	S-3	Total/NA	Solid	5035	
880-11152-15	S-3	Total/NA	Solid	5035	
880-11152-16	S-4	Total/NA	Solid	5035	
880-11152-17	S-4	Total/NA	Solid	5035	
880-11152-18	S-4	Total/NA	Solid	5035	
880-11152-19	S-4	Total/NA	Solid	5035	
880-11152-20	S-4	Total/NA	Solid	5035	
MB 880-19023/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19023/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19023/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11152-1 MS	S-1	Total/NA	Solid	5035	
880-11152-1 MSD	S-1	Total/NA	Solid	5035	

Analysis Batch: 19027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-29	S-7	Total/NA	Solid	8021B	19034
880-11152-30	S-8	Total/NA	Solid	8021B	19034
MB 880-18969/5-A	Method Blank	Total/NA	Solid	8021B	18969
MB 880-19034/5-A	Method Blank	Total/NA	Solid	8021B	19034
LCS 880-19034/1-A	Lab Control Sample	Total/NA	Solid	8021B	19034
LCSD 880-19034/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19034
880-11151-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	19034
880-11151-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	19034

Prep Batch: 19034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-29	S-7	Total/NA	Solid	5035	
880-11152-30	S-8	Total/NA	Solid	5035	
MB 880-19034/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19034/1-A	Lab Control Sample	Total/NA	Solid	5035	

Eurofins Midland

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

GC VOA (Continued)

Prep Batch: 19034 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-19034/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11151-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-11151-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 19035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-21	S-5	Total/NA	Solid	5035	
880-11152-22	S-5	Total/NA	Solid	5035	
880-11152-23	S-5	Total/NA	Solid	5035	
880-11152-24	S-5	Total/NA	Solid	5035	
880-11152-25	S-5	Total/NA	Solid	5035	
880-11152-26	S-6	Total/NA	Solid	5035	
880-11152-27	S-6	Total/NA	Solid	5035	
880-11152-28	S-7	Total/NA	Solid	5035	
MB 880-19035/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19035/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19035/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 19036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-31	S-8	Total/NA	Solid	5035	
880-11152-32	S-9	Total/NA	Solid	5035	
880-11152-33	S-9	Total/NA	Solid	5035	
MB 880-19036/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19036/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19036/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11152-31 MS	S-8	Total/NA	Solid	5035	
880-11152-31 MSD	S-8	Total/NA	Solid	5035	

Analysis Batch: 19116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-21	S-5	Total/NA	Solid	8021B	19035
880-11152-22	S-5	Total/NA	Solid	8021B	19035
880-11152-23	S-5	Total/NA	Solid	8021B	19035
880-11152-24	S-5	Total/NA	Solid	8021B	19035
880-11152-25	S-5	Total/NA	Solid	8021B	19035
880-11152-26	S-6	Total/NA	Solid	8021B	19035
880-11152-27	S-6	Total/NA	Solid	8021B	19035
880-11152-28	S-7	Total/NA	Solid	8021B	19035
880-11152-31	S-8	Total/NA	Solid	8021B	19036
880-11152-32	S-9	Total/NA	Solid	8021B	19036
880-11152-33	S-9	Total/NA	Solid	8021B	19036
MB 880-19035/5-A	Method Blank	Total/NA	Solid	8021B	19035
MB 880-19036/5-A	Method Blank	Total/NA	Solid	8021B	19036
LCS 880-19035/1-A	Lab Control Sample	Total/NA	Solid	8021B	19035
LCS 880-19036/1-A	Lab Control Sample	Total/NA	Solid	8021B	19036
LCSD 880-19035/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19035
LCSD 880-19036/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19036
880-11152-31 MS	S-8	Total/NA	Solid	8021B	19036
880-11152-31 MSD	S-8	Total/NA	Solid	8021B	19036

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QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

GC VOA

Analysis Batch: 19117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Total/NA	Solid	8021B	19023
880-11152-2	S-1	Total/NA	Solid	8021B	19023
880-11152-3	S-1	Total/NA	Solid	8021B	19023
880-11152-4	S-1	Total/NA	Solid	8021B	19023
880-11152-5	S-1	Total/NA	Solid	8021B	19023
880-11152-6	S-2	Total/NA	Solid	8021B	19023
880-11152-7	S-2	Total/NA	Solid	8021B	19023
880-11152-8	S-2	Total/NA	Solid	8021B	19023
880-11152-9	S-2	Total/NA	Solid	8021B	19023
880-11152-10	S-2	Total/NA	Solid	8021B	19023
880-11152-11	S-3	Total/NA	Solid	8021B	19023
880-11152-12	S-3	Total/NA	Solid	8021B	19023
880-11152-13	S-3	Total/NA	Solid	8021B	19023
880-11152-14	S-3	Total/NA	Solid	8021B	19023
880-11152-15	S-3	Total/NA	Solid	8021B	19023
880-11152-16	S-4	Total/NA	Solid	8021B	19023
880-11152-17	S-4	Total/NA	Solid	8021B	19023
880-11152-18	S-4	Total/NA	Solid	8021B	19023
880-11152-19	S-4	Total/NA	Solid	8021B	19023
880-11152-20	S-4	Total/NA	Solid	8021B	19023
MB 880-19021/5-A	Method Blank	Total/NA	Solid	8021B	19021
MB 880-19023/5-A	Method Blank	Total/NA	Solid	8021B	19023
LCS 880-19023/1-A	Lab Control Sample	Total/NA	Solid	8021B	19023
LCSD 880-19023/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19023
880-11152-1 MS	S-1	Total/NA	Solid	8021B	19023
880-11152-1 MSD	S-1	Total/NA	Solid	8021B	19023

Analysis Batch: 19290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-29	S-7	Total/NA	Solid	Total BTEX	
880-11152-30	S-8	Total/NA	Solid	Total BTEX	

Analysis Batch: 19331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Total/NA	Solid	Total BTEX	
880-11152-2	S-1	Total/NA	Solid	Total BTEX	
880-11152-3	S-1	Total/NA	Solid	Total BTEX	
880-11152-4	S-1	Total/NA	Solid	Total BTEX	
880-11152-5	S-1	Total/NA	Solid	Total BTEX	
880-11152-6	S-2	Total/NA	Solid	Total BTEX	
880-11152-7	S-2	Total/NA	Solid	Total BTEX	
880-11152-8	S-2	Total/NA	Solid	Total BTEX	
880-11152-9	S-2	Total/NA	Solid	Total BTEX	
880-11152-10	S-2	Total/NA	Solid	Total BTEX	
880-11152-11	S-3	Total/NA	Solid	Total BTEX	
880-11152-12	S-3	Total/NA	Solid	Total BTEX	
880-11152-13	S-3	Total/NA	Solid	Total BTEX	
880-11152-14	S-3	Total/NA	Solid	Total BTEX	
880-11152-15	S-3	Total/NA	Solid	Total BTEX	
880-11152-16	S-4	Total/NA	Solid	Total BTEX	
880-11152-17	S-4	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

GC VOA (Continued)

Analysis Batch: 19331 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-18	S-4	Total/NA	Solid	Total BTEX	
880-11152-19	S-4	Total/NA	Solid	Total BTEX	
880-11152-20	S-4	Total/NA	Solid	Total BTEX	

Analysis Batch: 19350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-21	S-5	Total/NA	Solid	Total BTEX	
880-11152-22	S-5	Total/NA	Solid	Total BTEX	
880-11152-23	S-5	Total/NA	Solid	Total BTEX	
880-11152-24	S-5	Total/NA	Solid	Total BTEX	
880-11152-25	S-5	Total/NA	Solid	Total BTEX	
880-11152-26	S-6	Total/NA	Solid	Total BTEX	
880-11152-27	S-6	Total/NA	Solid	Total BTEX	
880-11152-28	S-7	Total/NA	Solid	Total BTEX	
880-11152-31	S-8	Total/NA	Solid	Total BTEX	
880-11152-32	S-9	Total/NA	Solid	Total BTEX	
880-11152-33	S-9	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 19037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-33	S-9	Total/NA	Solid	8015NM Prep	
MB 880-19037/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19037/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19037/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11144-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11144-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 19054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Total/NA	Solid	8015NM Prep	
880-11152-2	S-1	Total/NA	Solid	8015NM Prep	
880-11152-3	S-1	Total/NA	Solid	8015NM Prep	
880-11152-4	S-1	Total/NA	Solid	8015NM Prep	
880-11152-5	S-1	Total/NA	Solid	8015NM Prep	
880-11152-6	S-2	Total/NA	Solid	8015NM Prep	
880-11152-7	S-2	Total/NA	Solid	8015NM Prep	
880-11152-8	S-2	Total/NA	Solid	8015NM Prep	
880-11152-9	S-2	Total/NA	Solid	8015NM Prep	
880-11152-10	S-2	Total/NA	Solid	8015NM Prep	
880-11152-11	S-3	Total/NA	Solid	8015NM Prep	
880-11152-12	S-3	Total/NA	Solid	8015NM Prep	
880-11152-13	S-3	Total/NA	Solid	8015NM Prep	
880-11152-14	S-3	Total/NA	Solid	8015NM Prep	
880-11152-15	S-3	Total/NA	Solid	8015NM Prep	
880-11152-16	S-4	Total/NA	Solid	8015NM Prep	
880-11152-17	S-4	Total/NA	Solid	8015NM Prep	
880-11152-18	S-4	Total/NA	Solid	8015NM Prep	
880-11152-19	S-4	Total/NA	Solid	8015NM Prep	
880-11152-20	S-4	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

GC Semi VOA (Continued)

Prep Batch: 19054 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-19054/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19054/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19054/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11152-1 MS	S-1	Total/NA	Solid	8015NM Prep	
880-11152-1 MSD	S-1	Total/NA	Solid	8015NM Prep	

Prep Batch: 19055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-21	S-5	Total/NA	Solid	8015NM Prep	
880-11152-22	S-5	Total/NA	Solid	8015NM Prep	
880-11152-23	S-5	Total/NA	Solid	8015NM Prep	
880-11152-24	S-5	Total/NA	Solid	8015NM Prep	
880-11152-25	S-5	Total/NA	Solid	8015NM Prep	
880-11152-26	S-6	Total/NA	Solid	8015NM Prep	
880-11152-27	S-6	Total/NA	Solid	8015NM Prep	
880-11152-28	S-7	Total/NA	Solid	8015NM Prep	
880-11152-29	S-7	Total/NA	Solid	8015NM Prep	
880-11152-30	S-8	Total/NA	Solid	8015NM Prep	
880-11152-31	S-8	Total/NA	Solid	8015NM Prep	
880-11152-32	S-9	Total/NA	Solid	8015NM Prep	
MB 880-19055/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19055/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19055/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11152-21 MS	S-5	Total/NA	Solid	8015NM Prep	
880-11152-21 MSD	S-5	Total/NA	Solid	8015NM Prep	

Analysis Batch: 19105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Total/NA	Solid	8015B NM	19054
880-11152-2	S-1	Total/NA	Solid	8015B NM	19054
880-11152-3	S-1	Total/NA	Solid	8015B NM	19054
880-11152-4	S-1	Total/NA	Solid	8015B NM	19054
880-11152-5	S-1	Total/NA	Solid	8015B NM	19054
880-11152-6	S-2	Total/NA	Solid	8015B NM	19054
880-11152-7	S-2	Total/NA	Solid	8015B NM	19054
880-11152-8	S-2	Total/NA	Solid	8015B NM	19054
880-11152-9	S-2	Total/NA	Solid	8015B NM	19054
880-11152-10	S-2	Total/NA	Solid	8015B NM	19054
880-11152-11	S-3	Total/NA	Solid	8015B NM	19054
880-11152-12	S-3	Total/NA	Solid	8015B NM	19054
880-11152-13	S-3	Total/NA	Solid	8015B NM	19054
880-11152-14	S-3	Total/NA	Solid	8015B NM	19054
880-11152-15	S-3	Total/NA	Solid	8015B NM	19054
880-11152-16	S-4	Total/NA	Solid	8015B NM	19054
880-11152-17	S-4	Total/NA	Solid	8015B NM	19054
880-11152-18	S-4	Total/NA	Solid	8015B NM	19054
880-11152-19	S-4	Total/NA	Solid	8015B NM	19054
880-11152-20	S-4	Total/NA	Solid	8015B NM	19054
MB 880-19054/1-A	Method Blank	Total/NA	Solid	8015B NM	19054
LCS 880-19054/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19054
LCSD 880-19054/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19054

Eurofins Midland

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

GC Semi VOA (Continued)

Analysis Batch: 19105 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1 MS	S-1	Total/NA	Solid	8015B NM	19054
880-11152-1 MSD	S-1	Total/NA	Solid	8015B NM	19054

Analysis Batch: 19108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-33	S-9	Total/NA	Solid	8015B NM	19037
MB 880-19037/1-A	Method Blank	Total/NA	Solid	8015B NM	19037
LCS 880-19037/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19037
LCSD 880-19037/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19037
880-11144-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	19037
880-11144-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	19037

Analysis Batch: 19245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-21	S-5	Total/NA	Solid	8015B NM	19055
880-11152-22	S-5	Total/NA	Solid	8015B NM	19055
880-11152-23	S-5	Total/NA	Solid	8015B NM	19055
880-11152-24	S-5	Total/NA	Solid	8015B NM	19055
880-11152-25	S-5	Total/NA	Solid	8015B NM	19055
880-11152-26	S-6	Total/NA	Solid	8015B NM	19055
880-11152-27	S-6	Total/NA	Solid	8015B NM	19055
880-11152-28	S-7	Total/NA	Solid	8015B NM	19055
880-11152-29	S-7	Total/NA	Solid	8015B NM	19055
880-11152-30	S-8	Total/NA	Solid	8015B NM	19055
880-11152-31	S-8	Total/NA	Solid	8015B NM	19055
880-11152-32	S-9	Total/NA	Solid	8015B NM	19055
MB 880-19055/1-A	Method Blank	Total/NA	Solid	8015B NM	19055
LCS 880-19055/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19055
LCSD 880-19055/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19055
880-11152-21 MS	S-5	Total/NA	Solid	8015B NM	19055
880-11152-21 MSD	S-5	Total/NA	Solid	8015B NM	19055

Analysis Batch: 19503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-21	S-5	Total/NA	Solid	8015 NM	
880-11152-22	S-5	Total/NA	Solid	8015 NM	
880-11152-23	S-5	Total/NA	Solid	8015 NM	
880-11152-24	S-5	Total/NA	Solid	8015 NM	
880-11152-25	S-5	Total/NA	Solid	8015 NM	
880-11152-26	S-6	Total/NA	Solid	8015 NM	
880-11152-27	S-6	Total/NA	Solid	8015 NM	
880-11152-28	S-7	Total/NA	Solid	8015 NM	
880-11152-29	S-7	Total/NA	Solid	8015 NM	
880-11152-30	S-8	Total/NA	Solid	8015 NM	
880-11152-31	S-8	Total/NA	Solid	8015 NM	
880-11152-32	S-9	Total/NA	Solid	8015 NM	

Analysis Batch: 19741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Total/NA	Solid	8015 NM	
880-11152-2	S-1	Total/NA	Solid	8015 NM	

Eurofins Midland

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

GC Semi VOA (Continued)

Analysis Batch: 19741 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-3	S-1	Total/NA	Solid	8015 NM	
880-11152-4	S-1	Total/NA	Solid	8015 NM	
880-11152-5	S-1	Total/NA	Solid	8015 NM	
880-11152-6	S-2	Total/NA	Solid	8015 NM	
880-11152-7	S-2	Total/NA	Solid	8015 NM	
880-11152-8	S-2	Total/NA	Solid	8015 NM	
880-11152-9	S-2	Total/NA	Solid	8015 NM	
880-11152-10	S-2	Total/NA	Solid	8015 NM	
880-11152-11	S-3	Total/NA	Solid	8015 NM	
880-11152-12	S-3	Total/NA	Solid	8015 NM	
880-11152-13	S-3	Total/NA	Solid	8015 NM	
880-11152-14	S-3	Total/NA	Solid	8015 NM	
880-11152-15	S-3	Total/NA	Solid	8015 NM	
880-11152-16	S-4	Total/NA	Solid	8015 NM	
880-11152-17	S-4	Total/NA	Solid	8015 NM	
880-11152-18	S-4	Total/NA	Solid	8015 NM	
880-11152-19	S-4	Total/NA	Solid	8015 NM	
880-11152-20	S-4	Total/NA	Solid	8015 NM	
880-11152-33	S-9	Total/NA	Solid	8015 NM	

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Leach Batch: 19066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Soluble	Solid	DI Leach	
880-11152-2	S-1	Soluble	Solid	DI Leach	
880-11152-3	S-1	Soluble	Solid	DI Leach	
880-11152-4	S-1	Soluble	Solid	DI Leach	
880-11152-5	S-1	Soluble	Solid	DI Leach	
880-11152-6	S-2	Soluble	Solid	DI Leach	
880-11152-7	S-2	Soluble	Solid	DI Leach	
880-11152-8	S-2	Soluble	Solid	DI Leach	
880-11152-9	S-2	Soluble	Solid	DI Leach	
880-11152-10	S-2	Soluble	Solid	DI Leach	
880-11152-11	S-3	Soluble	Solid	DI Leach	
880-11152-12	S-3	Soluble	Solid	DI Leach	
MB 880-19066/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19066/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19066/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-11152-3 MS	S-1	Soluble	Solid	DI Leach	
880-11152-3 MSD	S-1	Soluble	Solid	DI Leach	

Leach Batch: 19067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-13	S-3	Soluble	Solid	DI Leach	
880-11152-14	S-3	Soluble	Solid	DI Leach	
880-11152-15	S-3	Soluble	Solid	DI Leach	
880-11152-16	S-4	Soluble	Solid	DI Leach	
880-11152-17	S-4	Soluble	Solid	DI Leach	
880-11152-18	S-4	Soluble	Solid	DI Leach	
880-11152-19	S-4	Soluble	Solid	DI Leach	

Eurofins Midland

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

HPLC/IC (Continued)

Leach Batch: 19067 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-20	S-4	Soluble	Solid	DI Leach	
880-11152-21	S-5	Soluble	Solid	DI Leach	
880-11152-22	S-5	Soluble	Solid	DI Leach	
880-11152-23	S-5	Soluble	Solid	DI Leach	
880-11152-24	S-5	Soluble	Solid	DI Leach	
880-11152-25	S-5	Soluble	Solid	DI Leach	
880-11152-26	S-6	Soluble	Solid	DI Leach	
880-11152-27	S-6	Soluble	Solid	DI Leach	
880-11152-28	S-7	Soluble	Solid	DI Leach	
880-11152-29	S-7	Soluble	Solid	DI Leach	
880-11152-30	S-8	Soluble	Solid	DI Leach	
880-11152-31	S-8	Soluble	Solid	DI Leach	
880-11152-32	S-9	Soluble	Solid	DI Leach	
MB 880-19067/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19067/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19067/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-11152-13 MS	S-3	Soluble	Solid	DI Leach	
880-11152-13 MSD	S-3	Soluble	Solid	DI Leach	
880-11152-23 MS	S-5	Soluble	Solid	DI Leach	
880-11152-23 MSD	S-5	Soluble	Solid	DI Leach	

Leach Batch: 19068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-33	S-9	Soluble	Solid	DI Leach	
MB 880-19068/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19068/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19068/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-11152-33 MS	S-9	Soluble	Solid	DI Leach	
880-11152-33 MSD	S-9	Soluble	Solid	DI Leach	

Analysis Batch: 19472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-1	S-1	Soluble	Solid	300.0	19066
880-11152-2	S-1	Soluble	Solid	300.0	19066
880-11152-3	S-1	Soluble	Solid	300.0	19066
880-11152-4	S-1	Soluble	Solid	300.0	19066
880-11152-5	S-1	Soluble	Solid	300.0	19066
880-11152-6	S-2	Soluble	Solid	300.0	19066
880-11152-7	S-2	Soluble	Solid	300.0	19066
880-11152-8	S-2	Soluble	Solid	300.0	19066
880-11152-9	S-2	Soluble	Solid	300.0	19066
880-11152-10	S-2	Soluble	Solid	300.0	19066
880-11152-11	S-3	Soluble	Solid	300.0	19066
880-11152-12	S-3	Soluble	Solid	300.0	19066
MB 880-19066/1-A	Method Blank	Soluble	Solid	300.0	19066
LCS 880-19066/2-A	Lab Control Sample	Soluble	Solid	300.0	19066
LCSD 880-19066/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19066
880-11152-3 MS	S-1	Soluble	Solid	300.0	19066
880-11152-3 MSD	S-1	Soluble	Solid	300.0	19066

Eurofins Midland

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

HPLC/IC

Analysis Batch: 19473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-13	S-3	Soluble	Solid	300.0	19067
880-11152-14	S-3	Soluble	Solid	300.0	19067
880-11152-15	S-3	Soluble	Solid	300.0	19067
880-11152-16	S-4	Soluble	Solid	300.0	19067
880-11152-17	S-4	Soluble	Solid	300.0	19067
880-11152-18	S-4	Soluble	Solid	300.0	19067
880-11152-19	S-4	Soluble	Solid	300.0	19067
880-11152-20	S-4	Soluble	Solid	300.0	19067
880-11152-21	S-5	Soluble	Solid	300.0	19067
880-11152-22	S-5	Soluble	Solid	300.0	19067
880-11152-23	S-5	Soluble	Solid	300.0	19067
880-11152-24	S-5	Soluble	Solid	300.0	19067
880-11152-25	S-5	Soluble	Solid	300.0	19067
880-11152-26	S-6	Soluble	Solid	300.0	19067
880-11152-27	S-6	Soluble	Solid	300.0	19067
880-11152-28	S-7	Soluble	Solid	300.0	19067
880-11152-29	S-7	Soluble	Solid	300.0	19067
880-11152-30	S-8	Soluble	Solid	300.0	19067
880-11152-31	S-8	Soluble	Solid	300.0	19067
880-11152-32	S-9	Soluble	Solid	300.0	19067
MB 880-19067/1-A	Method Blank	Soluble	Solid	300.0	19067
LCS 880-19067/2-A	Lab Control Sample	Soluble	Solid	300.0	19067
LCSD 880-19067/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19067
880-11152-13 MS	S-3	Soluble	Solid	300.0	19067
880-11152-13 MSD	S-3	Soluble	Solid	300.0	19067
880-11152-23 MS	S-5	Soluble	Solid	300.0	19067
880-11152-23 MSD	S-5	Soluble	Solid	300.0	19067

Analysis Batch: 19479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-11152-33	S-9	Soluble	Solid	300.0	19068
MB 880-19068/1-A	Method Blank	Soluble	Solid	300.0	19068
LCS 880-19068/2-A	Lab Control Sample	Soluble	Solid	300.0	19068
LCSD 880-19068/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19068
880-11152-33 MS	S-9	Soluble	Solid	300.0	19068
880-11152-33 MSD	S-9	Soluble	Solid	300.0	19068

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-1

Lab Sample ID: 880-11152-1

Date Collected: 02/08/22 11:05

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 13:20	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 12:25	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		50			19472	02/16/22 00:53	CH	XEN MID

Client Sample ID: S-1

Lab Sample ID: 880-11152-2

Date Collected: 02/08/22 11:10

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 13:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 15:03	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		5			19472	02/16/22 01:02	CH	XEN MID

Client Sample ID: S-1

Lab Sample ID: 880-11152-3

Date Collected: 02/08/22 11:15

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 14:01	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 15:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		1			19472	02/16/22 22:41	CH	XEN MID

Client Sample ID: S-1

Lab Sample ID: 880-11152-4

Date Collected: 02/08/22 11:20

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 14:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-1

Lab Sample ID: 880-11152-4

Date Collected: 02/08/22 11:20

Matrix: Solid

Date Received: 02/10/22 09:00

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			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 15:45	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		1			19472	02/16/22 23:08	CH	XEN MID

Client Sample ID: S-1

Lab Sample ID: 880-11152-5

Date Collected: 02/08/22 11:25

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 14:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 16:27	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		1			19472	02/16/22 23:17	CH	XEN MID

Client Sample ID: S-2

Lab Sample ID: 880-11152-6

Date Collected: 02/08/22 11:30

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 15:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 16:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		20			19472	02/16/22 02:13	CH	XEN MID

Client Sample ID: S-2

Lab Sample ID: 880-11152-7

Date Collected: 02/08/22 11:32

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 15:22	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 17:09	AJ	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-2

Lab Sample ID: 880-11152-7

Date Collected: 02/08/22 11:32

Matrix: Solid

Date Received: 02/10/22 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		10			19472	02/16/22 02:22	CH	XEN MID

Client Sample ID: S-2

Lab Sample ID: 880-11152-8

Date Collected: 02/08/22 11:36

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 15:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 17:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		5			19472	02/16/22 02:31	CH	XEN MID

Client Sample ID: S-2

Lab Sample ID: 880-11152-9

Date Collected: 02/08/22 11:38

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 16:03	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 17:51	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		1			19472	02/16/22 02:40	CH	XEN MID

Client Sample ID: S-2

Lab Sample ID: 880-11152-10

Date Collected: 02/08/22 11:40

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 16:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 18:13	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		1			19472	02/16/22 02:48	CH	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-3

Lab Sample ID: 880-11152-11

Date Collected: 02/08/22 11:45

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 18:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 18:56	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		20			19472	02/16/22 02:57	CH	XEN MID

Client Sample ID: S-3

Lab Sample ID: 880-11152-12

Date Collected: 02/08/22 11:47

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 18:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 19:17	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	19066	02/10/22 15:40	CH	XEN MID
Soluble	Analysis	300.0		20			19472	02/16/22 03:06	CH	XEN MID

Client Sample ID: S-3

Lab Sample ID: 880-11152-13

Date Collected: 02/08/22 11:50

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 18:55	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 19:38	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		20			19473	02/18/22 02:45	CH	XEN MID

Client Sample ID: S-3

Lab Sample ID: 880-11152-14

Date Collected: 02/08/22 11:55

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 19:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-3

Lab Sample ID: 880-11152-14

Date Collected: 02/08/22 11:55

Matrix: Solid

Date Received: 02/10/22 09:00

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			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 19:58	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		10			19473	02/18/22 03:04	CH	XEN MID

Client Sample ID: S-3

Lab Sample ID: 880-11152-15

Date Collected: 02/08/22 12:00

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 19:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 20:19	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 03:10	CH	XEN MID

Client Sample ID: S-4

Lab Sample ID: 880-11152-16

Date Collected: 02/08/22 12:17

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 19:56	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 20:40	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		20			19473	02/18/22 03:17	CH	XEN MID

Client Sample ID: S-4

Lab Sample ID: 880-11152-17

Date Collected: 02/08/22 12:20

Matrix: Solid

Date Received: 02/10/22 09:00

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	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 20:17	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 21:02	AJ	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-4

Date Collected: 02/08/22 12:20

Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-17

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			5.01 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 03:23	CH	XEN MID

Client Sample ID: S-4

Date Collected: 02/08/22 12:22

Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-18

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			4.99 g	5 mL	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 20:37	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 21:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		5			19473	02/18/22 03:42	CH	XEN MID

Client Sample ID: S-4

Date Collected: 02/08/22 12:25

Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-19

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			4.96 g	5 mL	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 20:57	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 21:44	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		5			19473	02/18/22 03:48	CH	XEN MID

Client Sample ID: S-4

Date Collected: 02/08/22 12:27

Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-20

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			4.98 g	5 mL	19023	02/11/22 09:59	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19117	02/12/22 21:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19331	02/14/22 09:32	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	19054	02/10/22 14:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19105	02/11/22 22:05	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 03:55	CH	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-5

Lab Sample ID: 880-11152-21

Date Collected: 02/08/22 12:35

Matrix: Solid

Date Received: 02/10/22 09:00

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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 03:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 11:55	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		20			19473	02/18/22 04:01	CH	XEN MID

Client Sample ID: S-5

Lab Sample ID: 880-11152-22

Date Collected: 02/08/22 12:40

Matrix: Solid

Date Received: 02/10/22 09:00

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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 04:04	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 12:58	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		5			19473	02/18/22 04:07	CH	XEN MID

Client Sample ID: S-5

Lab Sample ID: 880-11152-23

Date Collected: 02/08/22 12:45

Matrix: Solid

Date Received: 02/10/22 09:00

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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 04:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 13:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 04:14	CH	XEN MID

Client Sample ID: S-5

Lab Sample ID: 880-11152-24

Date Collected: 02/08/22 12:50

Matrix: Solid

Date Received: 02/10/22 09:00

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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 04:45	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-5

Lab Sample ID: 880-11152-24

Date Collected: 02/08/22 12:50

Matrix: Solid

Date Received: 02/10/22 09:00

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			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 13:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 04:33	CH	XEN MID

Client Sample ID: S-5

Lab Sample ID: 880-11152-25

Date Collected: 02/08/22 13:00

Matrix: Solid

Date Received: 02/10/22 09:00

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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 05:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 14:00	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 04:39	CH	XEN MID

Client Sample ID: S-6

Lab Sample ID: 880-11152-26

Date Collected: 02/08/22 11:39

Matrix: Solid

Date Received: 02/10/22 09:00

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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 05:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 14:20	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		10			19473	02/18/22 04:58	CH	XEN MID

Client Sample ID: S-6

Lab Sample ID: 880-11152-27

Date Collected: 02/08/22 11:40

Matrix: Solid

Date Received: 02/10/22 09:00

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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 05:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 14:41	AJ	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-6

Date Collected: 02/08/22 11:40

Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-27

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			4.96 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 05:05	CH	XEN MID

Client Sample ID: S-7

Date Collected: 02/08/22 11:45

Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-28

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	19035	02/11/22 11:13	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 06:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 15:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 05:11	CH	XEN MID

Client Sample ID: S-7

Date Collected: 02/08/22 11:46

Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-29

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	19034	02/10/22 11:07	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19027	02/12/22 06:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19290	02/14/22 08:59	MR	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 15:22	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 05:17	CH	XEN MID

Client Sample ID: S-8

Date Collected: 02/08/22 11:50

Date Received: 02/10/22 09:00

Lab Sample ID: 880-11152-30

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	19034	02/10/22 11:07	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19027	02/12/22 07:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19290	02/14/22 08:59	MR	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 15:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		10			19473	02/18/22 05:24	CH	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Client Sample ID: S-8

Lab Sample ID: 880-11152-31

Date Collected: 02/08/22 11:51

Matrix: Solid

Date Received: 02/10/22 09:00

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	19036	02/11/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 09:30	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 16:24	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		10			19473	02/18/22 05:30	CH	XEN MID

Client Sample ID: S-9

Lab Sample ID: 880-11152-32

Date Collected: 02/08/22 11:55

Matrix: Solid

Date Received: 02/10/22 09:00

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	19036	02/11/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 09:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19503	02/15/22 13:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19055	02/10/22 14:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19245	02/13/22 16:44	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	19067	02/10/22 15:43	CH	XEN MID
Soluble	Analysis	300.0		1			19473	02/18/22 05:36	CH	XEN MID

Client Sample ID: S-9

Lab Sample ID: 880-11152-33

Date Collected: 02/08/22 11:56

Matrix: Solid

Date Received: 02/10/22 09:00

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	19036	02/11/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19116	02/12/22 10:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			19350	02/14/22 09:43	KL	XEN MID
Total/NA	Analysis	8015 NM		1			19741	02/17/22 15:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19037	02/10/22 11:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19108	02/12/22 05:17	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	19068	02/10/22 15:45	CH	XEN MID
Soluble	Analysis	300.0		5			19479	02/18/22 09:30	CH	XEN MID

Laboratory References:

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

Eurofins Midland

Accreditation/Certification Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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

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

Method Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

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: Gravitas SWD

Job ID: 880-11152-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-11152-1	S-1	Solid	02/08/22 11:05	02/10/22 09:00	0.5'
880-11152-2	S-1	Solid	02/08/22 11:10	02/10/22 09:00	1.0'
880-11152-3	S-1	Solid	02/08/22 11:15	02/10/22 09:00	2.0'
880-11152-4	S-1	Solid	02/08/22 11:20	02/10/22 09:00	3.0'
880-11152-5	S-1	Solid	02/08/22 11:25	02/10/22 09:00	4.5'
880-11152-6	S-2	Solid	02/08/22 11:30	02/10/22 09:00	0.5'
880-11152-7	S-2	Solid	02/08/22 11:32	02/10/22 09:00	1.0'
880-11152-8	S-2	Solid	02/08/22 11:36	02/10/22 09:00	2.0'
880-11152-9	S-2	Solid	02/08/22 11:38	02/10/22 09:00	3.0'
880-11152-10	S-2	Solid	02/08/22 11:40	02/10/22 09:00	4.5'
880-11152-11	S-3	Solid	02/08/22 11:45	02/10/22 09:00	0.5'
880-11152-12	S-3	Solid	02/08/22 11:47	02/10/22 09:00	1.0'
880-11152-13	S-3	Solid	02/08/22 11:50	02/10/22 09:00	2.0'
880-11152-14	S-3	Solid	02/08/22 11:55	02/10/22 09:00	3.0'
880-11152-15	S-3	Solid	02/08/22 12:00	02/10/22 09:00	4.5'
880-11152-16	S-4	Solid	02/08/22 12:17	02/10/22 09:00	0.5'
880-11152-17	S-4	Solid	02/08/22 12:20	02/10/22 09:00	1.0'
880-11152-18	S-4	Solid	02/08/22 12:22	02/10/22 09:00	2.0'
880-11152-19	S-4	Solid	02/08/22 12:25	02/10/22 09:00	3.0'
880-11152-20	S-4	Solid	02/08/22 12:27	02/10/22 09:00	4.5'
880-11152-21	S-5	Solid	02/08/22 12:35	02/10/22 09:00	0.5'
880-11152-22	S-5	Solid	02/08/22 12:40	02/10/22 09:00	1.0'
880-11152-23	S-5	Solid	02/08/22 12:45	02/10/22 09:00	2.0'
880-11152-24	S-5	Solid	02/08/22 12:50	02/10/22 09:00	3.0'
880-11152-25	S-5	Solid	02/08/22 13:00	02/10/22 09:00	4.5'
880-11152-26	S-6	Solid	02/08/22 11:39	02/10/22 09:00	0.5'
880-11152-27	S-6	Solid	02/08/22 11:40	02/10/22 09:00	1.0'
880-11152-28	S-7	Solid	02/08/22 11:45	02/10/22 09:00	0.5'
880-11152-29	S-7	Solid	02/08/22 11:46	02/10/22 09:00	1.0'
880-11152-30	S-8	Solid	02/08/22 11:50	02/10/22 09:00	0.5'
880-11152-31	S-8	Solid	02/08/22 11:51	02/10/22 09:00	1.0'
880-11152-32	S-9	Solid	02/08/22 11:55	02/10/22 09:00	0.5'
880-11152-33	S-9	Solid	02/08/22 11:56	02/10/22 09:00	1.0'

Marson & Associates, Inc.
Environmental Consultants

507 N. Marientfeld, Ste. 202
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 2/8/22 PAGE 1 OF 3
PO#: _____ LAB WORK ORDER#: _____
PROJECT LOCATION OR NAME: Greentree SW D
LAI PROJECT #: 22-0105-03 COLLECTOR: D&G + TP

11152 CHAIN-OF-CUSTODY

No. 2265

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION				ANALYSES	FIELD NOTES	
						HCl	HNO ₃	H ₂ SO ₄ ☐ NaOH ☐	ICE			UNPRESERVED
5-1 0.5'		2/8/22	1105	S	1				X			
5-1 1.0'			1110						X			
5-1 2.0'			1115						X			
5-1 3.0'			1120						X			
5-1 4.5'			1125						X			
5-2 0.5'			1130						X			
5-2 1.0'			1132						X			
5-2 2.0'			1136						X			
5-2 3.0'			1138						X			
5-2 4.5'			1140						X			
5-3 0.5'			1145						X			
5-3 1.0'			1147						X			
5-3 2.0'			1150						X			
5-3 3.0'			1155						X			
5-3 4.5'			1200						X			
TOTAL 15												



880-11152 Chain of Custody

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	TURN AROUND TIME	LABORATORY USE ONLY:
<i>[Signature]</i>	2/10 9:00	<i>[Signature]</i>		NORMAL ☒ 1 DAY ☐ 2 DAY ☐ OTHER ☐	RECEIVING TEMP: <u>21.2</u> THERM#: <u>ICE</u> CUSTODY SEALS: ☐ BROKEN ☒ INTACT ☐ NOT USED ☐ CARRIER BILL # _____ ☒ HAND DELIVERED
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME		
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME		
LABORATORY: <u>Xeno</u>					

Arson & Associates, Inc.
Environmental Consultants

507 N. Marienfeld Ste. 202
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 2-8-22 PAGE 2 OF 3
PO#: LAB WORK ORDER#
PROJECT LOCATION OR NAME: Gravitas SWP
LAI PROJECT #: 22-0105-03 COLLECTOR: DSG + TP

1152 CHAIN-OF-CUSTODY

No. 2266

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION				ANALYSES	FIELD NOTES	
						HCl	HNO ₃	H ₂ SO ₄ ☐ NaOH ☐	ICE			UNPRESERVED
S-4 0.5'		2/8/22	12:17	S	1					X		
S-4 1.0'			12:20							X		
S-4 2.0'			12:22							X		
S-4 3.0'			12:25							X		
S-4 4.5'			12:27							X		
S-5 0.5'			12:35							X		
S-5 1.0'			12:40							X		
S-5 2.0'			12:45							X		
S-5 3.0'			12:50							X		
S-5 4.5'			13:00							X		
S-6 0.5'			11:34							X		
S-6 1.0'			11:40							X		
S-7 0.5'			11:45							X		
S-7 1.0'			11:46							X		
S-8 0.5'			11:50							X		
TOTAL 15												

Marson & Associates, Inc.
Environmental Consultants

507 N. Marientfeld, Ste. 202
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 2/8/22 1152 CHAIN-OF-CUSTODY
PO#: _____ LAB WORK ORDER#: _____
PROJECT LOCATION OR NAME: Gravitas Sup
LAI PROJECT #: 22-0105-03 COLLECTOR: PSB + TP

TRRP report?
☐ Yes ☒ No
S=SOIL W=WATER P=PAINT
A=AIR SL=SLUDGE OT=OTHER

TIME ZONE:
Time zone/State:
MST/MM

Field Sample I.D.

Lab #

Date

Time

Matrix

of Containers

HCl

HNO₃H₂SO₄ ☐ NaOH ☐

ICE

UNPRESERVED

PRESERVATION

ANALYSES

BTEX ☒ MTBE ☒TPH 418.1 ☒ TPH 1005 ☒ TPH 1006 ☒GASOLINE MOD 8015 ☒DIESEL - MOD 8015 ☒OIL - MOD 8015 ☒VOC 8260 ☒SVOC 8270 ☒8081 PESTICIDES ☒8082 PCBS ☒TCLP - METALS (RCRA) ☒TCLP - PEST ☒TOTAL METALS (RCRA) ☒LEAD METALS (RCRA) ☒RCL ☒ TOX ☒ FLASHPOINT ☒TDS ☒ TSS ☒ % MOISTURE ☒PH ☒ HEXAVALENT CHROMIUM ☒EXPLOSIVES ☒ PECHLORATE ☒CHLORIDE ☒ ANIONS ☒ ALKALINITY ☒

FIELD NOTES

5-8 1.0'
5-9 0.5'
5-9 1.0'

2/8/22

1151

1155

5

1

1

X

X

X

X

X

X

X

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X

TOTAL 3

RELINQUISHED BY: (Signature)
RECEIVED BY: (Signature)

DATE/TIME

DATE/TIME

TURN AROUND TIME

LABORATORY USE ONLY:

RECEIVING TEMP. 11.2 THERM# IPBCUSTODY SEALS ☒ BROKEN ☒ CONTACT ☒ NOT USED

CARRIER BILL #

HAND DELIVERED

RELINQUISHED BY: (Signature)

DATE/TIME

DATE/TIME

TURN AROUND TIME

LABORATORY USE ONLY:

RECEIVING TEMP. 11.2 THERM# IPBCUSTODY SEALS ☒ BROKEN ☒ CONTACT ☒ NOT USED

CARRIER BILL #

HAND DELIVERED

LABORATORY: Enviro

DATE/TIME

DATE/TIME

TURN AROUND TIME

LABORATORY USE ONLY:

RECEIVING TEMP. 11.2 THERM# IPBCUSTODY SEALS ☒ BROKEN ☒ CONTACT ☒ NOT USED

CARRIER BILL #

HAND DELIVERED

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-11152-1

SDG Number: 22-0105-03

Login Number: 11152

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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-12311-1
Laboratory Sample Delivery Group: 22-0105-03
Client Project/Site: Gravitas SWD

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

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
3/28/2022 10:40:51 AM

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

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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: Gravitas SWD

Laboratory Job ID: 880-12311-1
SDG: 22-0105-03

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Definitions/Glossary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

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

GC Semi VOA

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

HPLC/IC

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

Case Narrative

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Job ID: 880-12311-1

Laboratory: Eurofins Midland

Narrative

Job Narrative 880-12311-1

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 0.1° 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

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 880-21601 and analytical batch 880-22135 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: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-8,1

Lab Sample ID: 880-12311-1

Date Collected: 03/07/22 11:45

Matrix: Solid

Date Received: 03/10/22 15:05

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 17:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/18/22 08:00	03/18/22 17:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/18/22 08:00	03/18/22 17:09	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		03/18/22 08:00	03/18/22 17:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/18/22 08:00	03/18/22 17:09	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/18/22 08:00	03/18/22 17:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	03/18/22 08:00	03/18/22 17:09	1
1,4-Difluorobenzene (Surr)	104		70 - 130	03/18/22 08:00	03/18/22 17:09	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			03/21/22 12:50	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			03/16/22 08:25	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 08:36	03/15/22 11:32	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		03/14/22 08:36	03/15/22 11:32	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		03/14/22 08:36	03/15/22 11:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	109		70 - 130	03/14/22 08:36	03/15/22 11:32	1
o-Terphenyl (Surr)	113		70 - 130	03/14/22 08:36	03/15/22 11:32	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2810		49.6	mg/Kg			03/25/22 15:20	10

Client Sample ID: S-8,3

Lab Sample ID: 880-12311-2

Date Collected: 03/07/22 11:46

Matrix: Solid

Date Received: 03/10/22 15:05

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	03/18/22 17:29	1
Toluene	<0.00198	U	0.00198	mg/Kg		03/18/22 08:00	03/18/22 17:29	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		03/18/22 08:00	03/18/22 17:29	1
m,p-Xylenes	<0.00397	U	0.00397	mg/Kg		03/18/22 08:00	03/18/22 17:29	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		03/18/22 08:00	03/18/22 17:29	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		03/18/22 08:00	03/18/22 17:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	03/18/22 08:00	03/18/22 17:29	1
1,4-Difluorobenzene (Surr)	110		70 - 130	03/18/22 08:00	03/18/22 17:29	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-8,3

Lab Sample ID: 880-12311-2

Date Collected: 03/07/22 11:46

Matrix: Solid

Date Received: 03/10/22 15:05

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			03/21/22 12:50	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			03/16/22 08:25	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 08:36	03/15/22 12:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/14/22 08:36	03/15/22 12:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/14/22 08:36	03/15/22 12:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	103		70 - 130			03/14/22 08:36	03/15/22 12:38	1
o-Terphenyl (Surr)	107		70 - 130			03/14/22 08:36	03/15/22 12:38	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	810		5.04	mg/Kg			03/25/22 15:29	1

Client Sample ID: S-8,5

Lab Sample ID: 880-12311-3

Date Collected: 03/07/22 11:47

Matrix: Solid

Date Received: 03/10/22 15:05

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	03/18/22 17:50	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/18/22 08:00	03/18/22 17:50	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/18/22 08:00	03/18/22 17:50	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		03/18/22 08:00	03/18/22 17:50	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/18/22 08:00	03/18/22 17:50	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/18/22 08:00	03/18/22 17:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			03/18/22 08:00	03/18/22 17:50	1
1,4-Difluorobenzene (Surr)	108		70 - 130			03/18/22 08:00	03/18/22 17:50	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			03/21/22 12:50	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			03/16/22 08:25	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 12:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/14/22 08:36	03/15/22 12:59	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-8,5

Lab Sample ID: 880-12311-3

Date Collected: 03/07/22 11:47

Matrix: Solid

Date Received: 03/10/22 15:05

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 08:36	03/15/22 12:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	92		70 - 130			03/14/22 08:36	03/15/22 12:59	1
o-Terphenyl (Surr)	94		70 - 130			03/14/22 08:36	03/15/22 12:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23.5		5.00	mg/Kg			03/25/22 15:38	1

Client Sample ID: S-8,10

Lab Sample ID: 880-12311-4

Date Collected: 03/07/22 11:49

Matrix: Solid

Date Received: 03/10/22 15:05

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 18:10	1
Toluene	<0.00202	U	0.00202	mg/Kg		03/18/22 08:00	03/18/22 18:10	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/18/22 08:00	03/18/22 18:10	1
m,p-Xylenes	<0.00404	U	0.00404	mg/Kg		03/18/22 08:00	03/18/22 18:10	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/18/22 08:00	03/18/22 18:10	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		03/18/22 08:00	03/18/22 18:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			03/18/22 08:00	03/18/22 18:10	1
1,4-Difluorobenzene (Surr)	109		70 - 130			03/18/22 08:00	03/18/22 18:10	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			03/21/22 12:50	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			03/16/22 08:25	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 08:36	03/15/22 13:20	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		03/14/22 08:36	03/15/22 13:20	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		03/14/22 08:36	03/15/22 13:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	92		70 - 130			03/14/22 08:36	03/15/22 13:20	1
o-Terphenyl (Surr)	87		70 - 130			03/14/22 08:36	03/15/22 13:20	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	73.0		4.99	mg/Kg			03/25/22 15:47	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-12,0.5

Lab Sample ID: 880-12311-5

Date Collected: 03/07/22 12:40

Matrix: Solid

Date Received: 03/10/22 15:05

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 18:31	1
Toluene	<0.00202	U	0.00202	mg/Kg		03/18/22 08:00	03/18/22 18:31	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/18/22 08:00	03/18/22 18:31	1
m,p-Xylenes	<0.00404	U	0.00404	mg/Kg		03/18/22 08:00	03/18/22 18:31	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/18/22 08:00	03/18/22 18:31	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		03/18/22 08:00	03/18/22 18:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	03/18/22 08:00	03/18/22 18:31	1
1,4-Difluorobenzene (Surr)	104		70 - 130	03/18/22 08:00	03/18/22 18:31	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			03/21/22 12:50	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			03/16/22 08:25	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 08:36	03/15/22 13:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/14/22 08:36	03/15/22 13:41	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/14/22 08:36	03/15/22 13:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	87		70 - 130	03/14/22 08:36	03/15/22 13:41	1
o-Terphenyl (Surr)	85		70 - 130	03/14/22 08:36	03/15/22 13:41	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	217	F1	4.97	mg/Kg			03/25/22 16:01	1

Client Sample ID: S-12,1

Lab Sample ID: 880-12311-6

Date Collected: 03/07/22 12:41

Matrix: Solid

Date Received: 03/10/22 15:05

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 18:51	1
Toluene	<0.00202	U	0.00202	mg/Kg		03/18/22 08:00	03/18/22 18:51	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/18/22 08:00	03/18/22 18:51	1
m,p-Xylenes	<0.00403	U	0.00403	mg/Kg		03/18/22 08:00	03/18/22 18:51	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/18/22 08:00	03/18/22 18:51	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		03/18/22 08:00	03/18/22 18:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	03/18/22 08:00	03/18/22 18:51	1
1,4-Difluorobenzene (Surr)	112		70 - 130	03/18/22 08:00	03/18/22 18:51	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-12,1

Lab Sample ID: 880-12311-6

Date Collected: 03/07/22 12:41

Matrix: Solid

Date Received: 03/10/22 15:05

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			03/21/22 12:50	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			03/16/22 08:25	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 08:36	03/15/22 14:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/14/22 08:36	03/15/22 14:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/14/22 08:36	03/15/22 14:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	94		70 - 130			03/14/22 08:36	03/15/22 14:02	1
o-Terphenyl (Surr)	96		70 - 130			03/14/22 08:36	03/15/22 14:02	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1140		4.97	mg/Kg			03/25/22 16:28	1

Client Sample ID: S-9,5

Lab Sample ID: 880-12311-7

Date Collected: 03/07/22 13:10

Matrix: Solid

Date Received: 03/10/22 15:05

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 22:07	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/17/22 13:09	03/18/22 22:07	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/17/22 13:09	03/18/22 22:07	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		03/17/22 13:09	03/18/22 22:07	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/17/22 13:09	03/18/22 22:07	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/17/22 13:09	03/18/22 22:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130			03/17/22 13:09	03/18/22 22:07	1
1,4-Difluorobenzene (Surr)	119		70 - 130			03/17/22 13:09	03/18/22 22:07	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			03/21/22 12:50	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			03/16/22 08:25	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 14:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/14/22 08:36	03/15/22 14:23	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-9,5

Lab Sample ID: 880-12311-7

Date Collected: 03/07/22 13:10

Matrix: Solid

Date Received: 03/10/22 15:05

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		03/14/22 08:36	03/15/22 14:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	90		70 - 130			03/14/22 08:36	03/15/22 14:23	1
o-Terphenyl (Surr)	89		70 - 130			03/14/22 08:36	03/15/22 14:23	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.3		4.98	mg/Kg			03/25/22 16:37	1

Client Sample ID: S-9,3

Lab Sample ID: 880-12311-8

Date Collected: 03/07/22 13:11

Matrix: Solid

Date Received: 03/10/22 15:05

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 13:09	03/18/22 22:28	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/17/22 13:09	03/18/22 22:28	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/17/22 13:09	03/18/22 22:28	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		03/17/22 13:09	03/18/22 22:28	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/17/22 13:09	03/18/22 22:28	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/17/22 13:09	03/18/22 22:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130			03/17/22 13:09	03/18/22 22:28	1
1,4-Difluorobenzene (Surr)	117		70 - 130			03/17/22 13:09	03/18/22 22:28	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			03/21/22 12:50	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			03/16/22 08:25	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 08:36	03/15/22 14:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/14/22 08:36	03/15/22 14:44	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/14/22 08:36	03/15/22 14:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	90		70 - 130			03/14/22 08:36	03/15/22 14:44	1
o-Terphenyl (Surr)	91		70 - 130			03/14/22 08:36	03/15/22 14:44	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.21		4.95	mg/Kg			03/25/22 17:03	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-9,5

Lab Sample ID: 880-12311-9

Date Collected: 03/07/22 13:12

Matrix: Solid

Date Received: 03/10/22 15:05

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 22:49	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/17/22 13:09	03/18/22 22:49	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/17/22 13:09	03/18/22 22:49	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		03/17/22 13:09	03/18/22 22:49	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/17/22 13:09	03/18/22 22:49	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/17/22 13:09	03/18/22 22:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	03/17/22 13:09	03/18/22 22:49	1
1,4-Difluorobenzene (Surr)	115		70 - 130	03/17/22 13:09	03/18/22 22:49	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			03/21/22 12:50	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			03/16/22 08:25	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 08:36	03/15/22 15:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/14/22 08:36	03/15/22 15:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/14/22 08:36	03/15/22 15:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	103		70 - 130	03/14/22 08:36	03/15/22 15:04	1
o-Terphenyl (Surr)	104		70 - 130	03/14/22 08:36	03/15/22 15:04	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.01	U	5.01	mg/Kg			03/25/22 17:12	1

Client Sample ID: S-9,10

Lab Sample ID: 880-12311-10

Date Collected: 03/07/22 13:13

Matrix: Solid

Date Received: 03/10/22 15:05

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 13:09	03/18/22 23:10	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/17/22 13:09	03/18/22 23:10	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/17/22 13:09	03/18/22 23:10	1
m,p-Xylenes	<0.00399	U	0.00399	mg/Kg		03/17/22 13:09	03/18/22 23:10	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/17/22 13:09	03/18/22 23:10	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/17/22 13:09	03/18/22 23:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	03/17/22 13:09	03/18/22 23:10	1
1,4-Difluorobenzene (Surr)	117		70 - 130	03/17/22 13:09	03/18/22 23:10	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-9,10

Lab Sample ID: 880-12311-10

Date Collected: 03/07/22 13:13

Matrix: Solid

Date Received: 03/10/22 15:05

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			03/21/22 12:50	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			03/16/22 08:25	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 15:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/14/22 08:36	03/15/22 15:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/14/22 08:36	03/15/22 15:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	102		70 - 130			03/14/22 08:36	03/15/22 15:25	1
o-Terphenyl (Surr)	104		70 - 130			03/14/22 08:36	03/15/22 15:25	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			03/25/22 17:21	1

Client Sample ID: S-10,0.5

Lab Sample ID: 880-12311-11

Date Collected: 03/07/22 13:50

Matrix: Solid

Date Received: 03/10/22 15:05

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 23:31	1
Toluene	<0.00198	U	0.00198	mg/Kg		03/17/22 13:09	03/18/22 23:31	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		03/17/22 13:09	03/18/22 23:31	1
m,p-Xylenes	<0.00397	U	0.00397	mg/Kg		03/17/22 13:09	03/18/22 23:31	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		03/17/22 13:09	03/18/22 23:31	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		03/17/22 13:09	03/18/22 23:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			03/17/22 13:09	03/18/22 23:31	1
1,4-Difluorobenzene (Surr)	44	S1-	70 - 130			03/17/22 13:09	03/18/22 23:31	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			03/21/22 12:50	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			03/16/22 08:25	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 08:36	03/15/22 16:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/14/22 08:36	03/15/22 16:07	1

Eurofins Midland

Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-10,0.5

Lab Sample ID: 880-12311-11

Date Collected: 03/07/22 13:50

Matrix: Solid

Date Received: 03/10/22 15:05

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		03/14/22 08:36	03/15/22 16:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	90		70 - 130			03/14/22 08:36	03/15/22 16:07	1
o-Terphenyl (Surr)	92		70 - 130			03/14/22 08:36	03/15/22 16:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.9		5.00	mg/Kg			03/25/22 17:30	1

Client Sample ID: S-10,1

Lab Sample ID: 880-12311-12

Date Collected: 03/07/22 13:51

Matrix: Solid

Date Received: 03/10/22 15:05

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 23:51	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/17/22 13:09	03/18/22 23:51	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/17/22 13:09	03/18/22 23:51	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		03/17/22 13:09	03/18/22 23:51	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/17/22 13:09	03/18/22 23:51	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/17/22 13:09	03/18/22 23:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130			03/17/22 13:09	03/18/22 23:51	1
1,4-Difluorobenzene (Surr)	113		70 - 130			03/17/22 13:09	03/18/22 23:51	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			03/21/22 12:50	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			03/16/22 08:25	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 08:36	03/15/22 16:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/14/22 08:36	03/15/22 16:28	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/14/22 08:36	03/15/22 16:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	107		70 - 130			03/14/22 08:36	03/15/22 16:28	1
o-Terphenyl (Surr)	112		70 - 130			03/14/22 08:36	03/15/22 16:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.2		4.99	mg/Kg			03/25/22 17:39	1

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-11,0.5

Lab Sample ID: 880-12311-13

Date Collected: 03/07/22 14:20

Matrix: Solid

Date Received: 03/10/22 15:05

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		03/17/22 13:09	03/19/22 00:12	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/17/22 13:09	03/19/22 00:12	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/17/22 13:09	03/19/22 00:12	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		03/17/22 13:09	03/19/22 00:12	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/17/22 13:09	03/19/22 00:12	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/17/22 13:09	03/19/22 00:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	03/17/22 13:09	03/19/22 00:12	1
1,4-Difluorobenzene (Surr)	116		70 - 130	03/17/22 13:09	03/19/22 00:12	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			03/21/22 12:50	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			03/16/22 08:25	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 08:36	03/15/22 16:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/14/22 08:36	03/15/22 16:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/14/22 08:36	03/15/22 16:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	92		70 - 130	03/14/22 08:36	03/15/22 16:49	1
o-Terphenyl (Surr)	89		70 - 130	03/14/22 08:36	03/15/22 16:49	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35.6		4.98	mg/Kg			03/25/22 18:26	1

Client Sample ID: S-11,1

Lab Sample ID: 880-12311-14

Date Collected: 03/07/22 14:21

Matrix: Solid

Date Received: 03/10/22 15:05

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 13:09	03/19/22 01:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/17/22 13:09	03/19/22 01:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/17/22 13:09	03/19/22 01:37	1
m,p-Xylenes	<0.00399	U	0.00399	mg/Kg		03/17/22 13:09	03/19/22 01:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/17/22 13:09	03/19/22 01:37	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/17/22 13:09	03/19/22 01:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	03/17/22 13:09	03/19/22 01:37	1
1,4-Difluorobenzene (Surr)	112		70 - 130	03/17/22 13:09	03/19/22 01:37	1

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-11,1

Lab Sample ID: 880-12311-14

Date Collected: 03/07/22 14:21

Matrix: Solid

Date Received: 03/10/22 15:05

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			03/21/22 12:50	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			03/16/22 08:25	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 17:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/14/22 08:36	03/15/22 17:10	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/14/22 08:36	03/15/22 17:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	95		70 - 130			03/14/22 08:36	03/15/22 17:10	1
o-Terphenyl (Surr)	99		70 - 130			03/14/22 08:36	03/15/22 17:10	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	40.6		4.97	mg/Kg			03/25/22 18:43	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

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-A-1-K MS	Matrix Spike	96	93
880-12309-A-1-L MSD	Matrix Spike Duplicate	105	94
880-12311-1	S-8,1	106	104
880-12311-2	S-8,3	107	110
880-12311-3	S-8,5	105	108
880-12311-4	S-8,10	108	109
880-12311-5	S-12,0.5	108	104
880-12311-6	S-12,1	107	112
880-12311-7	S-9,5	98	119
880-12311-8	S-9,3	107	117
880-12311-9	S-9,5	103	115
880-12311-10	S-9,10	102	117
880-12311-11	S-10,0.5	100	44 S1-
880-12311-12	S-10,1	101	113
880-12311-13	S-11,0.5	105	116
880-12311-14	S-11,1	95	112
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)
880-12311-1	S-8,1	109	113
880-12311-1 MS	S-8,1	103	96
880-12311-1 MSD	S-8,1	106	96
880-12311-2	S-8,3	103	107
880-12311-3	S-8,5	92	94
880-12311-4	S-8,10	92	87
880-12311-5	S-12,0.5	87	85
880-12311-6	S-12,1	94	96
880-12311-7	S-9,5	90	89
880-12311-8	S-9,3	90	91
880-12311-9	S-9,5	103	104
880-12311-10	S-9,10	102	104
880-12311-11	S-10,0.5	90	92
880-12311-12	S-10,1	107	112
880-12311-13	S-11,0.5	92	89

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Surrogate Summary

Client: Larson & Associates, Inc.

Job ID: 880-12311-1

Project/Site: Gravitas SWD

SDG: 22-0105-03

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)
880-12311-14	S-11,1	95	99
LCS 880-21467/2-A	Lab Control Sample	97	105
LCSD 880-21467/3-A	Lab Control Sample Dup	104	110
MB 880-21467/1-A	Method Blank	107	117

Surrogate Legend

1CO = 1-Chlorooctane (Surr)

OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

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

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QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

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	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

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QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

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	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-A-1-K MS

Matrix: Solid

Analysis Batch: 21907

Client Sample ID: Matrix Spike

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-A-1-L MSD

Matrix: Solid

Analysis Batch: 21907

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 21733

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	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

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QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

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

Lab Sample ID: 880-12309-A-1-L MSD

Matrix: Solid

Analysis Batch: 21907

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 21733

	MSD	MSD	
Surrogate	%Recovery	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 880-21467/1-A

Matrix: Solid

Analysis Batch: 21609

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21467

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/14/22 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	MB	Limits	Prepared	Analyzed	Dil Fac
%Recovery	Qualifier					
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	LCS	Limits
%Recovery	Qualifier		
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	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	LCSD	Limits
%Recovery	Qualifier		
1-Chlorooctane (Surr)	104		70 - 130
o-Terphenyl (Surr)	110		70 - 130

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QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

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

Lab Sample ID: 880-12311-1 MS

Matrix: Solid

Analysis Batch: 21609

Client Sample ID: S-8,1

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

Lab Sample ID: 880-12311-1 MSD

Matrix: Solid

Analysis Batch: 21609

Client Sample ID: S-8,1

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 880-21601/1-A

Matrix: Solid

Analysis Batch: 22135

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			03/25/22 08:32	1

Lab Sample ID: LCS 880-21601/2-A

Matrix: Solid

Analysis Batch: 22135

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	271.1		mg/Kg		108	90 - 110

Lab Sample ID: LCSD 880-21601/3-A

Matrix: Solid

Analysis Batch: 22135

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	270.6		mg/Kg		108	90 - 110	0	20

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QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-12311-5 MS

Matrix: Solid

Analysis Batch: 22135

Client Sample ID: S-12,0.5

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	217	F1	249	499.5	F1	mg/Kg		114	90 - 110

Lab Sample ID: 880-12311-5 MSD

Matrix: Solid

Analysis Batch: 22135

Client Sample ID: S-12,0.5

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	217	F1	249	495.7	F1	mg/Kg		112	90 - 110	1	20

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

GC VOA

Prep Batch: 21732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Total/NA	Solid	5035	
880-12311-2	S-8,3	Total/NA	Solid	5035	
880-12311-3	S-8,5	Total/NA	Solid	5035	
880-12311-4	S-8,10	Total/NA	Solid	5035	
880-12311-5	S-12,0.5	Total/NA	Solid	5035	
880-12311-6	S-12,1	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
880-12311-7	S-9,5	Total/NA	Solid	5035	
880-12311-8	S-9,3	Total/NA	Solid	5035	
880-12311-9	S-9,5	Total/NA	Solid	5035	
880-12311-10	S-9,10	Total/NA	Solid	5035	
880-12311-11	S-10,0.5	Total/NA	Solid	5035	
880-12311-12	S-10,1	Total/NA	Solid	5035	
880-12311-13	S-11,0.5	Total/NA	Solid	5035	
880-12311-14	S-11,1	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-A-1-K MS	Matrix Spike	Total/NA	Solid	5035	
880-12309-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 21846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Total/NA	Solid	8021B	21732
880-12311-2	S-8,3	Total/NA	Solid	8021B	21732
880-12311-3	S-8,5	Total/NA	Solid	8021B	21732
880-12311-4	S-8,10	Total/NA	Solid	8021B	21732
880-12311-5	S-12,0.5	Total/NA	Solid	8021B	21732
880-12311-6	S-12,1	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
880-12311-7	S-9,5	Total/NA	Solid	8021B	21733
880-12311-8	S-9,3	Total/NA	Solid	8021B	21733
880-12311-9	S-9,5	Total/NA	Solid	8021B	21733
880-12311-10	S-9,10	Total/NA	Solid	8021B	21733
880-12311-11	S-10,0.5	Total/NA	Solid	8021B	21733
880-12311-12	S-10,1	Total/NA	Solid	8021B	21733
880-12311-13	S-11,0.5	Total/NA	Solid	8021B	21733

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QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

GC VOA (Continued)

Analysis Batch: 21907 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-14	S-11,1	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-A-1-K MS	Matrix Spike	Total/NA	Solid	8021B	21733
880-12309-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	21733

Analysis Batch: 22054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Total/NA	Solid	Total BTEX	
880-12311-2	S-8,3	Total/NA	Solid	Total BTEX	
880-12311-3	S-8,5	Total/NA	Solid	Total BTEX	
880-12311-4	S-8,10	Total/NA	Solid	Total BTEX	
880-12311-5	S-12,0.5	Total/NA	Solid	Total BTEX	
880-12311-6	S-12,1	Total/NA	Solid	Total BTEX	
880-12311-7	S-9,5	Total/NA	Solid	Total BTEX	
880-12311-8	S-9,3	Total/NA	Solid	Total BTEX	
880-12311-9	S-9,5	Total/NA	Solid	Total BTEX	
880-12311-10	S-9,10	Total/NA	Solid	Total BTEX	
880-12311-11	S-10,0.5	Total/NA	Solid	Total BTEX	
880-12311-12	S-10,1	Total/NA	Solid	Total BTEX	
880-12311-13	S-11,0.5	Total/NA	Solid	Total BTEX	
880-12311-14	S-11,1	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 21467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Total/NA	Solid	8015NM Prep	
880-12311-2	S-8,3	Total/NA	Solid	8015NM Prep	
880-12311-3	S-8,5	Total/NA	Solid	8015NM Prep	
880-12311-4	S-8,10	Total/NA	Solid	8015NM Prep	
880-12311-5	S-12,0.5	Total/NA	Solid	8015NM Prep	
880-12311-6	S-12,1	Total/NA	Solid	8015NM Prep	
880-12311-7	S-9,5	Total/NA	Solid	8015NM Prep	
880-12311-8	S-9,3	Total/NA	Solid	8015NM Prep	
880-12311-9	S-9,5	Total/NA	Solid	8015NM Prep	
880-12311-10	S-9,10	Total/NA	Solid	8015NM Prep	
880-12311-11	S-10,0.5	Total/NA	Solid	8015NM Prep	
880-12311-12	S-10,1	Total/NA	Solid	8015NM Prep	
880-12311-13	S-11,0.5	Total/NA	Solid	8015NM Prep	
880-12311-14	S-11,1	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	
880-12311-1 MS	S-8,1	Total/NA	Solid	8015NM Prep	
880-12311-1 MSD	S-8,1	Total/NA	Solid	8015NM Prep	

Analysis Batch: 21609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Total/NA	Solid	8015B NM	21467

Eurofins Midland

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

GC Semi VOA (Continued)

Analysis Batch: 21609 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-2	S-8,3	Total/NA	Solid	8015B NM	21467
880-12311-3	S-8,5	Total/NA	Solid	8015B NM	21467
880-12311-4	S-8,10	Total/NA	Solid	8015B NM	21467
880-12311-5	S-12,0.5	Total/NA	Solid	8015B NM	21467
880-12311-6	S-12,1	Total/NA	Solid	8015B NM	21467
880-12311-7	S-9,5	Total/NA	Solid	8015B NM	21467
880-12311-8	S-9,3	Total/NA	Solid	8015B NM	21467
880-12311-9	S-9,5	Total/NA	Solid	8015B NM	21467
880-12311-10	S-9,10	Total/NA	Solid	8015B NM	21467
880-12311-11	S-10,0.5	Total/NA	Solid	8015B NM	21467
880-12311-12	S-10,1	Total/NA	Solid	8015B NM	21467
880-12311-13	S-11,0.5	Total/NA	Solid	8015B NM	21467
880-12311-14	S-11,1	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
880-12311-1 MS	S-8,1	Total/NA	Solid	8015B NM	21467
880-12311-1 MSD	S-8,1	Total/NA	Solid	8015B NM	21467

Analysis Batch: 21684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Total/NA	Solid	8015 NM	
880-12311-2	S-8,3	Total/NA	Solid	8015 NM	
880-12311-3	S-8,5	Total/NA	Solid	8015 NM	
880-12311-4	S-8,10	Total/NA	Solid	8015 NM	
880-12311-5	S-12,0.5	Total/NA	Solid	8015 NM	
880-12311-6	S-12,1	Total/NA	Solid	8015 NM	
880-12311-7	S-9,5	Total/NA	Solid	8015 NM	
880-12311-8	S-9,3	Total/NA	Solid	8015 NM	
880-12311-9	S-9,5	Total/NA	Solid	8015 NM	
880-12311-10	S-9,10	Total/NA	Solid	8015 NM	
880-12311-11	S-10,0.5	Total/NA	Solid	8015 NM	
880-12311-12	S-10,1	Total/NA	Solid	8015 NM	
880-12311-13	S-11,0.5	Total/NA	Solid	8015 NM	
880-12311-14	S-11,1	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 21601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Soluble	Solid	DI Leach	
880-12311-2	S-8,3	Soluble	Solid	DI Leach	
880-12311-3	S-8,5	Soluble	Solid	DI Leach	
880-12311-4	S-8,10	Soluble	Solid	DI Leach	
880-12311-5	S-12,0.5	Soluble	Solid	DI Leach	
880-12311-6	S-12,1	Soluble	Solid	DI Leach	
880-12311-7	S-9,5	Soluble	Solid	DI Leach	
880-12311-8	S-9,3	Soluble	Solid	DI Leach	
880-12311-9	S-9,5	Soluble	Solid	DI Leach	
880-12311-10	S-9,10	Soluble	Solid	DI Leach	
880-12311-11	S-10,0.5	Soluble	Solid	DI Leach	

Eurofins Midland

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

HPLC/IC (Continued)

Leach Batch: 21601 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-12	S-10,1	Soluble	Solid	DI Leach	
880-12311-13	S-11,0.5	Soluble	Solid	DI Leach	
880-12311-14	S-11,1	Soluble	Solid	DI Leach	
MB 880-21601/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-21601/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-21601/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-12311-5 MS	S-12,0.5	Soluble	Solid	DI Leach	
880-12311-5 MSD	S-12,0.5	Soluble	Solid	DI Leach	

Analysis Batch: 22135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-12311-1	S-8,1	Soluble	Solid	300.0	21601
880-12311-2	S-8,3	Soluble	Solid	300.0	21601
880-12311-3	S-8,5	Soluble	Solid	300.0	21601
880-12311-4	S-8,10	Soluble	Solid	300.0	21601
880-12311-5	S-12,0.5	Soluble	Solid	300.0	21601
880-12311-6	S-12,1	Soluble	Solid	300.0	21601
880-12311-7	S-9,5	Soluble	Solid	300.0	21601
880-12311-8	S-9,3	Soluble	Solid	300.0	21601
880-12311-9	S-9,5	Soluble	Solid	300.0	21601
880-12311-10	S-9,10	Soluble	Solid	300.0	21601
880-12311-11	S-10,0.5	Soluble	Solid	300.0	21601
880-12311-12	S-10,1	Soluble	Solid	300.0	21601
880-12311-13	S-11,0.5	Soluble	Solid	300.0	21601
880-12311-14	S-11,1	Soluble	Solid	300.0	21601
MB 880-21601/1-A	Method Blank	Soluble	Solid	300.0	21601
LCS 880-21601/2-A	Lab Control Sample	Soluble	Solid	300.0	21601
LCSD 880-21601/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	21601
880-12311-5 MS	S-12,0.5	Soluble	Solid	300.0	21601
880-12311-5 MSD	S-12,0.5	Soluble	Solid	300.0	21601

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-8,1

Lab Sample ID: 880-12311-1

Date Collected: 03/07/22 11:45

Matrix: Solid

Date Received: 03/10/22 15:05

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	21732	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 17:09	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 11:32	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		10			22135	03/25/22 15:20	CH	XEN MID

Client Sample ID: S-8,3

Lab Sample ID: 880-12311-2

Date Collected: 03/07/22 11:46

Matrix: Solid

Date Received: 03/10/22 15:05

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	21732	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 17:29	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 12:38	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 15:29	CH	XEN MID

Client Sample ID: S-8,5

Lab Sample ID: 880-12311-3

Date Collected: 03/07/22 11:47

Matrix: Solid

Date Received: 03/10/22 15:05

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	21732	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 17:50	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 12:59	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 15:38	CH	XEN MID

Client Sample ID: S-8,10

Lab Sample ID: 880-12311-4

Date Collected: 03/07/22 11:49

Matrix: Solid

Date Received: 03/10/22 15:05

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	21732	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 18:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-8,10

Lab Sample ID: 880-12311-4

Date Collected: 03/07/22 11:49

Matrix: Solid

Date Received: 03/10/22 15:05

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			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 13:20	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 15:47	CH	XEN MID

Client Sample ID: S-12,0.5

Lab Sample ID: 880-12311-5

Date Collected: 03/07/22 12:40

Matrix: Solid

Date Received: 03/10/22 15:05

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	21732	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 18:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 13:41	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 16:01	CH	XEN MID

Client Sample ID: S-12,1

Lab Sample ID: 880-12311-6

Date Collected: 03/07/22 12:41

Matrix: Solid

Date Received: 03/10/22 15:05

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	21732	03/18/22 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21846	03/18/22 18:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 14:02	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 16:28	CH	XEN MID

Client Sample ID: S-9,5

Lab Sample ID: 880-12311-7

Date Collected: 03/07/22 13:10

Matrix: Solid

Date Received: 03/10/22 15:05

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 22:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	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 14:23	AJ	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-9,5

Lab Sample ID: 880-12311-7

Date Collected: 03/07/22 13:10

Matrix: Solid

Date Received: 03/10/22 15:05

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	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 16:37	CH	XEN MID

Client Sample ID: S-9,3

Lab Sample ID: 880-12311-8

Date Collected: 03/07/22 13:11

Matrix: Solid

Date Received: 03/10/22 15:05

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	21733	03/17/22 13:09	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21907	03/18/22 22:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 14:44	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 17:03	CH	XEN MID

Client Sample ID: S-9,5

Lab Sample ID: 880-12311-9

Date Collected: 03/07/22 13:12

Matrix: Solid

Date Received: 03/10/22 15:05

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	21733	03/17/22 13:09	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21907	03/18/22 22:49	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 15:04	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 17:12	CH	XEN MID

Client Sample ID: S-9,10

Lab Sample ID: 880-12311-10

Date Collected: 03/07/22 13:13

Matrix: Solid

Date Received: 03/10/22 15:05

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 23:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	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 15:25	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 17:21	CH	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-10,0.5

Lab Sample ID: 880-12311-11

Date Collected: 03/07/22 13:50

Matrix: Solid

Date Received: 03/10/22 15:05

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 23:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 16:07	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 17:30	CH	XEN MID

Client Sample ID: S-10,1

Lab Sample ID: 880-12311-12

Date Collected: 03/07/22 13:51

Matrix: Solid

Date Received: 03/10/22 15:05

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 23:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 16:28	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 17:39	CH	XEN MID

Client Sample ID: S-11,0.5

Lab Sample ID: 880-12311-13

Date Collected: 03/07/22 14:20

Matrix: Solid

Date Received: 03/10/22 15:05

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	21733	03/17/22 13:09	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	21907	03/19/22 00:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 16:49	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 18:26	CH	XEN MID

Client Sample ID: S-11,1

Lab Sample ID: 880-12311-14

Date Collected: 03/07/22 14:21

Matrix: Solid

Date Received: 03/10/22 15:05

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	03/19/22 01:37	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22054	03/21/22 12:50	AJ	XEN MID

Eurofins Midland

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Client Sample ID: S-11,1**Lab Sample ID: 880-12311-14****Date Collected: 03/07/22 14:21****Matrix: Solid****Date Received: 03/10/22 15:05**

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			21684	03/16/22 08:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	21467	03/14/22 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			21609	03/15/22 17:10	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	21601	03/15/22 08:31	CH	XEN MID
Soluble	Analysis	300.0		1			22135	03/25/22 18:43	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.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

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: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

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

Eurofins Midland

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-12311-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-12311-1	S-8,1	Solid	03/07/22 11:45	03/10/22 15:05
880-12311-2	S-8,3	Solid	03/07/22 11:46	03/10/22 15:05
880-12311-3	S-8,5	Solid	03/07/22 11:47	03/10/22 15:05
880-12311-4	S-8,10	Solid	03/07/22 11:49	03/10/22 15:05
880-12311-5	S-12,0.5	Solid	03/07/22 12:40	03/10/22 15:05
880-12311-6	S-12,1	Solid	03/07/22 12:41	03/10/22 15:05
880-12311-7	S-9,5	Solid	03/07/22 13:10	03/10/22 15:05
880-12311-8	S-9,3	Solid	03/07/22 13:11	03/10/22 15:05
880-12311-9	S-9,5	Solid	03/07/22 13:12	03/10/22 15:05
880-12311-10	S-9,10	Solid	03/07/22 13:13	03/10/22 15:05
880-12311-11	S-10,0.5	Solid	03/07/22 13:50	03/10/22 15:05
880-12311-12	S-10,1	Solid	03/07/22 13:51	03/10/22 15:05
880-12311-13	S-11,0.5	Solid	03/07/22 14:20	03/10/22 15:05
880-12311-14	S-11,1	Solid	03/07/22 14:21	03/10/22 15:05

Varson & Associates, Inc. Environmental Consultants

 507 N. Marenfeld, 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: Greentree 500
 LAI PROJECT #: 22-0105-03 COLLECTOR: TP + JR

12311

CHAIN-OF-CUSTODY

No. 2458

3/28/2022

Field Sample ID	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION				ANALYSES	FIELD NOTES	
						HCl	HNO ₃	H ₂ SO ₄ ☐ NaOH ☐	ICE			UNPRESERVED
S-8, 1		3/7/22	1145	S	1					X		
S-8, 3			1146							X		
S-8, 5			1147							X		
S-8, 10			1145							X		
S-12, 0.5			1246							X		
S-12, 1			1246							X		
S-9, 1			1310							X		
S-9, 3			1311							X		
S-9, 5			1312							X		
S-9, 10			1313							X		
S-10, 0.5			1350							X		
S-10, 1			1351							X		
S-11, 0.5			1400							X		
S-11, 1			1421							X		
TOTAL												

RELINQUISHED BY (Signature) [Signature] DATE/TIME 3/10/22 1505 RECEIVED BY (Signature) [Signature]
 RELINQUISHED BY (Signature) _____ DATE/TIME _____ RECEIVED BY (Signature) _____
 RELINQUISHED BY (Signature) _____ DATE/TIME _____ RECEIVED BY (Signature) _____
 LABORATORY Xenoco

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

LABORATORY USE ONLY:
 RECEIVING TEMP 21.1 THERM# 108
 CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☒ CARRIER BILL # _____
☒ HAND DELIVERED


 880-12311 Chain of Custody

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-12311-1

SDG Number: 22-0105-03

Login Number: 12311**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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-13938-1
Laboratory Sample Delivery Group: 22-0105-03
Client Project/Site: Gravitas SWD

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

Attn: Mr. Mark J Larson

Holly Taylor

Authorized for release by:
5/2/2022 3:42:22 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: Gravitas SWD

Laboratory Job ID: 880-13938-1
SDG: 22-0105-03

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Definitions/Glossary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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: Gravitass SWD

Job ID: 880-13938-1
SDG: 22-0105-03

Job ID: 880-13938-1

Laboratory: Eurofins Midland

Narrative

Job Narrative 880-13938-1

Comments

No additional comments.

Receipt

The samples were received on 4/21/2022 9:08 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 0.2° C.

GC VOA

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-24585 recovered under the lower control limit for <AffectedAnalytes>. The samples ran within 12hrs of passing ccv's ; therefore, the data have been reported.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-24404 and analytical batch 880-24585 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 8015B NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-24168 and analytical batch 880-24215 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.

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: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

Client Sample ID: S-12 2'

Lab Sample ID: 880-13938-1

Date Collected: 04/20/22 08:30

Matrix: Solid

Date Received: 04/21/22 09:08

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		04/28/22 11:21	05/02/22 02:35	1
Toluene	<0.00200	U F1	0.00200	mg/Kg		04/28/22 11:21	05/02/22 02:35	1
Ethylbenzene	<0.00200	U F1	0.00200	mg/Kg		04/28/22 11:21	05/02/22 02:35	1
m,p-Xylenes	<0.00399	U F1	0.00399	mg/Kg		04/28/22 11:21	05/02/22 02:35	1
o-Xylene	<0.00200	U F1	0.00200	mg/Kg		04/28/22 11:21	05/02/22 02:35	1
Xylenes, Total	<0.00399	U F1	0.00399	mg/Kg		04/28/22 11:21	05/02/22 02:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	04/28/22 11:21	05/02/22 02:35	1
1,4-Difluorobenzene (Surr)	89		70 - 130	04/28/22 11:21	05/02/22 02:35	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			05/02/22 09:17	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			04/27/22 12:09	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		04/25/22 11:18	04/27/22 03:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/25/22 11:18	04/27/22 03:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/25/22 11:18	04/27/22 03:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	85		70 - 130	04/25/22 11:18	04/27/22 03:46	1
o-Terphenyl (Surr)	106		70 - 130	04/25/22 11:18	04/27/22 03:46	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	292		4.95	mg/Kg			04/26/22 16:30	1

Client Sample ID: S-13 0-1

Lab Sample ID: 880-13938-2

Date Collected: 04/20/22 08:45

Matrix: Solid

Date Received: 04/21/22 09:08

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/28/22 11:21	05/02/22 02:55	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/28/22 11:21	05/02/22 02:55	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/28/22 11:21	05/02/22 02:55	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		04/28/22 11:21	05/02/22 02:55	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/28/22 11:21	05/02/22 02:55	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/28/22 11:21	05/02/22 02:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	04/28/22 11:21	05/02/22 02:55	1
1,4-Difluorobenzene (Surr)	88		70 - 130	04/28/22 11:21	05/02/22 02:55	1

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Client Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

Client Sample ID: S-13 0-1

Lab Sample ID: 880-13938-2

Date Collected: 04/20/22 08:45

Matrix: Solid

Date Received: 04/21/22 09:08

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			05/02/22 09:17	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			04/27/22 12:09	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		04/25/22 11:18	04/27/22 04:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/25/22 11:18	04/27/22 04:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/25/22 11:18	04/27/22 04:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	81		70 - 130			04/25/22 11:18	04/27/22 04:07	1
o-Terphenyl (Surr)	102		70 - 130			04/25/22 11:18	04/27/22 04:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	188		4.96	mg/Kg			04/26/22 16:36	1

Surrogate Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

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)
880-13938-1	S-12 2'	105	89
880-13938-1 MS	S-12 2'	113	93
880-13938-1 MSD	S-12 2'	117	93
880-13938-2	S-13 0-1	106	88
LCS 880-24404/1-A	Lab Control Sample	111	95
LCSD 880-24404/2-A	Lab Control Sample Dup	119	98
MB 880-24404/5-A	Method Blank	97	86
MB 880-24583/5-A	Method Blank	97	90
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)
880-13938-1	S-12 2'	85	106
880-13938-2	S-13 0-1	81	102
880-13941-A-27-B MS	Matrix Spike	77	87
880-13941-A-27-C MSD	Matrix Spike Duplicate	75	85
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 880-24168/2-A	Lab Control Sample	95	123
LCSD 880-24168/3-A	Lab Control Sample Dup	97	128
MB 880-24168/1-A	Method Blank	82	104
Surrogate Legend			
1CO = 1-Chlorooctane (Surr)			
OTPH = o-Terphenyl (Surr)			

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-24404/5-A

Matrix: Solid

Analysis Batch: 24585

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24404

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/28/22 11:21	05/02/22 02:13	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/28/22 11:21	05/02/22 02:13	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/28/22 11:21	05/02/22 02:13	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		04/28/22 11:21	05/02/22 02:13	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/28/22 11:21	05/02/22 02:13	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/28/22 11:21	05/02/22 02:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	04/28/22 11:21	05/02/22 02:13	1
1,4-Difluorobenzene (Surr)	86		70 - 130	04/28/22 11:21	05/02/22 02:13	1

Lab Sample ID: LCS 880-24404/1-A

Matrix: Solid

Analysis Batch: 24585

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24404

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08898		mg/Kg		89	70 - 130
Toluene	0.100	0.09298		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.1004		mg/Kg		100	70 - 130
m,p-Xylenes	0.200	0.2046		mg/Kg		102	70 - 130
o-Xylene	0.100	0.1074		mg/Kg		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: LCSD 880-24404/2-A

Matrix: Solid

Analysis Batch: 24585

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24404

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08877		mg/Kg		89	70 - 130	0	35
Toluene	0.100	0.09342		mg/Kg		93	70 - 130	0	35
Ethylbenzene	0.100	0.1006		mg/Kg		101	70 - 130	0	35
m,p-Xylenes	0.200	0.2038		mg/Kg		102	70 - 130	0	35
o-Xylene	0.100	0.1091		mg/Kg		109	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 880-13938-1 MS

Matrix: Solid

Analysis Batch: 24585

Client Sample ID: S-12 2'

Prep Type: Total/NA

Prep Batch: 24404

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1	0.0996	0.04421	F1	mg/Kg		44	70 - 130
Toluene	<0.00200	U F1	0.0996	0.03856	F1	mg/Kg		39	70 - 130

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

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

Lab Sample ID: 880-13938-1 MS

Matrix: Solid

Analysis Batch: 24585

Client Sample ID: S-12 2'

Prep Type: Total/NA

Prep Batch: 24404

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F1	0.0996	0.04246	F1	mg/Kg		43	70 - 130
m,p-Xylenes	<0.00399	U F1	0.199	0.09402	F1	mg/Kg		47	70 - 130
o-Xylene	<0.00200	U F1	0.0996	0.06123	F1	mg/Kg		61	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 880-13938-1 MSD

Matrix: Solid

Analysis Batch: 24585

Client Sample ID: S-12 2'

Prep Type: Total/NA

Prep Batch: 24404

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.0994	0.04973	F1	mg/Kg		50	70 - 130	12	35
Toluene	<0.00200	U F1	0.0994	0.04558	F1	mg/Kg		46	70 - 130	17	35
Ethylbenzene	<0.00200	U F1	0.0994	0.03631	F1	mg/Kg		37	70 - 130	16	35
m,p-Xylenes	<0.00399	U F1	0.199	0.1127	F1	mg/Kg		57	70 - 130	18	35
o-Xylene	<0.00200	U F1	0.0994	0.06577	F1	mg/Kg		66	70 - 130	7	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	117		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: MB 880-24583/5-A

Matrix: Solid

Analysis Batch: 24585

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24583

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/01/22 13:14	05/01/22 15:38	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/01/22 13:14	05/01/22 15:38	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/01/22 13:14	05/01/22 15:38	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		05/01/22 13:14	05/01/22 15:38	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/01/22 13:14	05/01/22 15:38	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/01/22 13:14	05/01/22 15:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	05/01/22 13:14	05/01/22 15:38	1
1,4-Difluorobenzene (Surr)	90		70 - 130	05/01/22 13:14	05/01/22 15:38	1

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

Lab Sample ID: MB 880-24168/1-A

Matrix: Solid

Analysis Batch: 24215

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24168

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		04/25/22 11:18	04/26/22 19:33	1

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

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

Lab Sample ID: MB 880-24168/1-A

Matrix: Solid

Analysis Batch: 24215

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24168

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		04/25/22 11:18	04/26/22 19:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/25/22 11:18	04/26/22 19:33	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane (Surr)	82		70 - 130			04/25/22 11:18	04/26/22 19:33	1
o-Terphenyl (Surr)	104		70 - 130			04/25/22 11:18	04/26/22 19:33	1

Lab Sample ID: LCS 880-24168/2-A

Matrix: Solid

Analysis Batch: 24215

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24168

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1040		mg/Kg		104	70 - 130
Diesel Range Organics (Over C10-C28)	1000	943.0		mg/Kg		94	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane (Surr)	95		70 - 130				
o-Terphenyl (Surr)	123		70 - 130				

Lab Sample ID: LCSD 880-24168/3-A

Matrix: Solid

Analysis Batch: 24215

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24168

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	986.2		mg/Kg		99	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	885.3		mg/Kg		89	70 - 130	6	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane (Surr)	97		70 - 130						
o-Terphenyl (Surr)	128		70 - 130						

Lab Sample ID: 880-13941-A-27-B MS

Matrix: Solid

Analysis Batch: 24215

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24168

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	999	799.0		mg/Kg		78	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	704.0	F1	mg/Kg		68	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane (Surr)	77		70 - 130						
o-Terphenyl (Surr)	87		70 - 130						

Eurofins Midland

QC Sample Results

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

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

Lab Sample ID: 880-13941-A-27-C MSD

Matrix: Solid

Analysis Batch: 24215

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24168

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	792.3		mg/Kg		77	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	699.4	F1	mg/Kg		68	70 - 130	1	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane (Surr)	75		70 - 130								
o-Terphenyl (Surr)	85		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-23915/1-A

Matrix: Solid

Analysis Batch: 24190

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			04/26/22 13:52	1

Lab Sample ID: LCS 880-23915/2-A

Matrix: Solid

Analysis Batch: 24190

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	242.5		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-23915/3-A

Matrix: Solid

Analysis Batch: 24190

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	261.0		mg/Kg		104	90 - 110	7	20

Lab Sample ID: 880-13936-A-51-F MS

Matrix: Solid

Analysis Batch: 24190

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	6.20		248	263.5		mg/Kg		104	90 - 110

Lab Sample ID: 880-13936-A-51-G MSD

Matrix: Solid

Analysis Batch: 24190

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	6.20		248	240.8		mg/Kg		95	90 - 110	9	20

Eurofins Midland

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

GC VOA

Prep Batch: 24404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Total/NA	Solid	5035	
880-13938-2	S-13 0-1	Total/NA	Solid	5035	
MB 880-24404/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24404/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24404/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-13938-1 MS	S-12 2'	Total/NA	Solid	5035	
880-13938-1 MSD	S-12 2'	Total/NA	Solid	5035	

Prep Batch: 24583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-24583/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 24585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Total/NA	Solid	8021B	24404
880-13938-2	S-13 0-1	Total/NA	Solid	8021B	24404
MB 880-24404/5-A	Method Blank	Total/NA	Solid	8021B	24404
MB 880-24583/5-A	Method Blank	Total/NA	Solid	8021B	24583
LCS 880-24404/1-A	Lab Control Sample	Total/NA	Solid	8021B	24404
LCSD 880-24404/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24404
880-13938-1 MS	S-12 2'	Total/NA	Solid	8021B	24404
880-13938-1 MSD	S-12 2'	Total/NA	Solid	8021B	24404

Analysis Batch: 24620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Total/NA	Solid	Total BTEX	
880-13938-2	S-13 0-1	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Total/NA	Solid	8015NM Prep	
880-13938-2	S-13 0-1	Total/NA	Solid	8015NM Prep	
MB 880-24168/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24168/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24168/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-13941-A-27-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-13941-A-27-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Total/NA	Solid	8015B NM	24168
880-13938-2	S-13 0-1	Total/NA	Solid	8015B NM	24168
MB 880-24168/1-A	Method Blank	Total/NA	Solid	8015B NM	24168
LCS 880-24168/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24168
LCSD 880-24168/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24168
880-13941-A-27-B MS	Matrix Spike	Total/NA	Solid	8015B NM	24168
880-13941-A-27-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	24168

Eurofins Midland

QC Association Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

GC Semi VOA

Analysis Batch: 24323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Total/NA	Solid	8015 NM	
880-13938-2	S-13 0-1	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 23915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Soluble	Solid	DI Leach	
880-13938-2	S-13 0-1	Soluble	Solid	DI Leach	
MB 880-23915/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23915/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23915/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-13936-A-51-F MS	Matrix Spike	Soluble	Solid	DI Leach	
880-13936-A-51-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 24190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-13938-1	S-12 2'	Soluble	Solid	300.0	23915
880-13938-2	S-13 0-1	Soluble	Solid	300.0	23915
MB 880-23915/1-A	Method Blank	Soluble	Solid	300.0	23915
LCS 880-23915/2-A	Lab Control Sample	Soluble	Solid	300.0	23915
LCSD 880-23915/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23915
880-13936-A-51-F MS	Matrix Spike	Soluble	Solid	300.0	23915
880-13936-A-51-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	23915

Lab Chronicle

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

Client Sample ID: S-12 2'

Lab Sample ID: 880-13938-1

Date Collected: 04/20/22 08:30

Matrix: Solid

Date Received: 04/21/22 09:08

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	24404	04/28/22 11:21	MR	XEN MID
Total/NA	Analysis	8021B		1			24585	05/02/22 02:35	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24620	05/02/22 09:17	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24323	04/27/22 12:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	24168	04/25/22 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24215	04/27/22 03:46	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	23915	04/21/22 10:01	CH	XEN MID
Soluble	Analysis	300.0		1			24190	04/26/22 16:30	SC	XEN MID

Client Sample ID: S-13 0-1

Lab Sample ID: 880-13938-2

Date Collected: 04/20/22 08:45

Matrix: Solid

Date Received: 04/21/22 09:08

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	24404	04/28/22 11:21	MR	XEN MID
Total/NA	Analysis	8021B		1			24585	05/02/22 02:55	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24620	05/02/22 09:17	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24323	04/27/22 12:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24168	04/25/22 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24215	04/27/22 04:07	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	23915	04/21/22 10:01	CH	XEN MID
Soluble	Analysis	300.0		1			24190	04/26/22 16:36	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.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

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

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

Method Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

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

Eurofins Midland

Sample Summary

Client: Larson & Associates, Inc.
Project/Site: Gravitas SWD

Job ID: 880-13938-1
SDG: 22-0105-03

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-13938-1	S-12 2'	Solid	04/20/22 08:30	04/21/22 09:08
880-13938-2	S-13 0-1	Solid	04/20/22 08:45	04/21/22 09:08

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

13938 CHAIN-OF-CUSTODY

Login Sample Receipt Checklist

Client: Larson & Associates, Inc.

Job Number: 880-13938-1

SDG Number: 22-0105-03

Login Number: 13938

List Number: 1

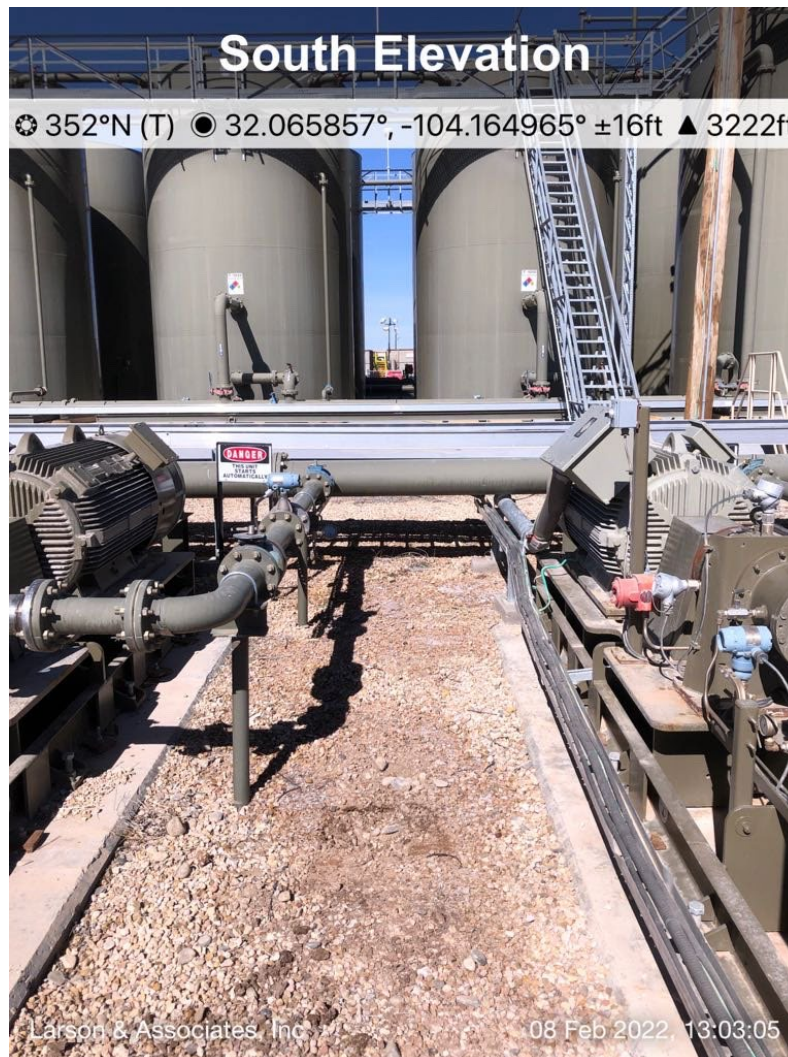
Creator: Rodriguez, Leticia

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	

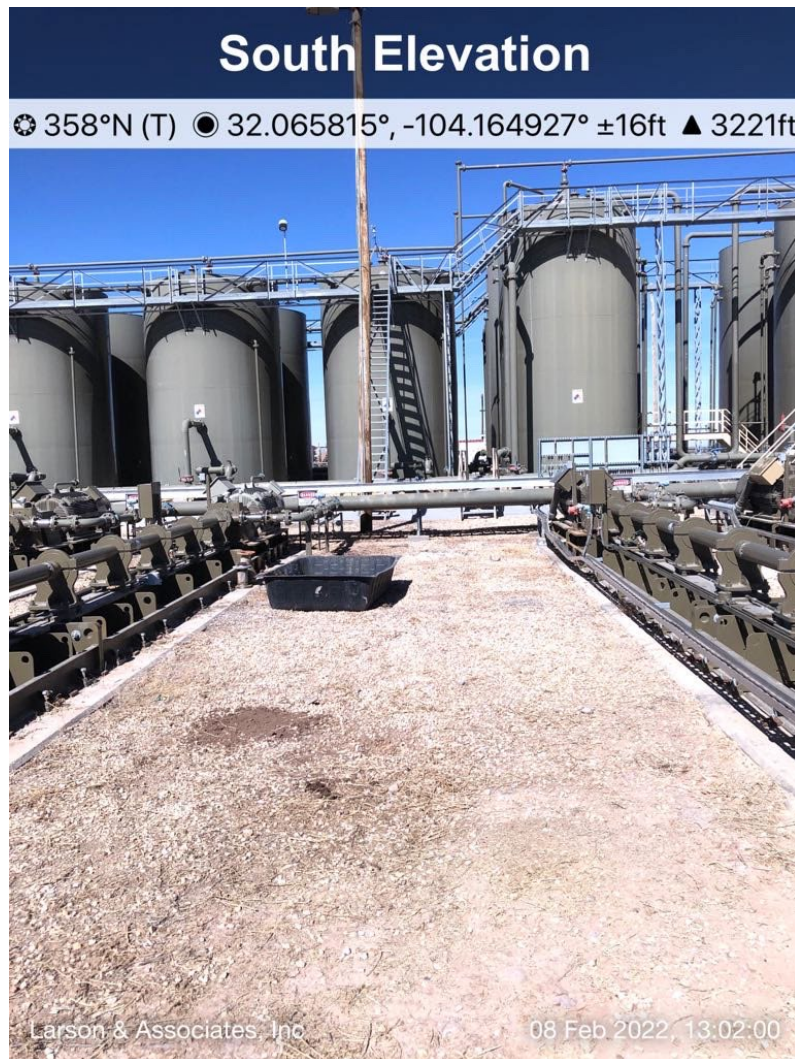
Appendix E
Photographs

Tracking Number: nAPP220552560
Delineation Report and Remediation Plan
Gravitas SWD, Chevron USA, Inc.
Produced Water Release
April 14, 2022



Impacted area viewing north, February 8, 2022

Tracking Number: nAPP220552560
Delineation Report and Remediation Plan
Gravitas SWD, Chevron USA, Inc.
Produced Water Release
April 14, 2022



Impacted area viewing north, February 8, 2022

Tracking Number: nAPP220552560
Delineation Report and Remediation Plan
Gravitas SWD, Chevron USA, Inc.
Produced Water Release
April 14, 2022



Impacted area viewing North, February 8, 2022

Tracking Number: nAPP220552560
Delineation Report and Remediation Plan
Gravitas SWD, Chevron USA, Inc.
Produced Water Release
April 14, 2022



Aerial image of impacted area viewing north, February 8, 2022



Aerial Image of impacted area, February 8, 2022

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 109725

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 109725
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Remediation Plan Approved.	8/30/2022