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State of New Mexico
Oil Conservation Division

Incident ID	nAPP2109954143
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?	47.8 (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.

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State of New Mexico
Oil Conservation Division

Incident ID	nAPP2109954143
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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: Bill Pierce Title: Engineer

Signature: Bill Pierce Date: 05/18/2021

email: bill@vfpetroleum.com Telephone: 432-683-3344

OCD Only

Received by: Date:

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State of New Mexico
Oil Conservation Division

Incident ID	nAPP2109954143
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Facility ID	
Application ID	

Remediation Plan

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

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

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

- [ ] 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: Bill Pierce Title: Engineer

Signature: Bill Pierce Date: 05-18-21

email: bill@vfpetroleum.com Telephone: 432-683-3344

OCD Only

Received by: Chad Hensley Date: 08/02/2021

- [x] Approved
- [ ] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: Chad Hensley Date: 08/02/2021

Tracking Number: nAPP2109954143
Delineation Report and Remediation Plan
Uno Mas #001
Produced Water Release
Lea County, New Mexico

Latitude: N 32.854767°
Longitude: W -103.413278°

LAI Project No. 20-0128-01

May 13, 2021

Prepared for:
V-F Petroleum Inc.
500 W. Texas Ave., Suite 350
Midland, Texas 79701

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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Appendices

1.0 INTRODUCTION

Larson & Associates, Inc. (LAI), has prepared this delineation report and remediation plan on behalf of V-F Petroleum, Inc. (V-F) for submittal to the New Mexico Oil Conservation Division (OCD) District 1 for a produced water release at the Uno Mas #001 (Site) located in Unit C (NE/4, NW/4), Section 12, Township 17 South, Range 35 East in Lea County, New Mexico. The geodetic position is North 32.854767° and West -103.413278°. Figure 1 presents a topographic map. Figure 2 presents an aerial map.

1.1 Background

The release was discovered on July 9, 2020, due to illegal dumping. Upon evaluation of the aerial extent of the spill (3,229 ft^2) depth of penetration (1 to 3 feet) average soil moisture content (12%), LAI calculated the spill volume at approximately 135 barrels (bbls) of produced water with no fluid recovered. The spill is considered a major release due to the volume of fluids released greater than 25 bbls. Appendix A presents the initial C-141. The initial C-141 was assigned an incident number of nAPP2109954143.

1.2 Physical Setting

The physical setting is as follows:

- The surface elevation is approximately 3,935 feet above mean sea level (msl).
- The surface topography gradually decreases to the southeast.
- There are no surface water features within 1,000 feet of the Site.
- Karst data provided by the USGS describes the Site as “Low Risk” potential’
- The soils are designated as “Kimbrough gravely loam, 0 to 3 percent slopes”, consisting of 0 to 3 inches of gravelly loam, underlain by 3 to 10 inches of loam, 10 to 80 inches of cemented material.
- The geology consists of the Pliocene age sand, silt, clay, gravel, and caliche (USGS).
- Groundwater was reported at approximately 47.8 feet below ground surface (bgs), measured by LAI personnel on August 14, 2020.
- According to the New Mexico Office of the State Engineer (OSE) the nearest freshwater well is located in Section 1, Township 17 South, Range 35 East, approximately 0.55 miles or 2,918 feet northeast of the site.

  Appendix B presents data depicting karst risk potential.

1.3 Remediation Action Levels

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

- Benzene 10 mg/Kg
- BTEX 50 mg/Kg
- TPH 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.

2.0 DELINEATION

On July 13, 2020, August 6, 2020, August 24, 2020, and September 30, 2020, LAI personnel used a stainless steel hand auger, Geoprobe® 7822DT direct push rig, and supervised an air rotary rig operated by Scarborough Drilling, Inc. (SDI) to collect soil samples from twelve (12) locations inside of the spill area (SP-4 through SP-13 and in each cardinal direction of the spill (SP-1 through SP-4 and SP-14). The samples were collected between approximately 0.5 and 35 feet bgs depending on the results of field tests for chloride concentration. The soil samples were delivered under chain of custody and preservation to Permian Basin Environmental Lab (PBEL) and Xenco Laboratories (Xenco) in Midland, Texas. The laboratories analyzed the samples for benzene, toluene, ethylbenzene and xylenes (BTEX) and 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. Figure 2 presents an aerial map showing the sample locations.

Benzene was below the OCD remediation action level (19.15.29 NMAC Table 1) of 10 milligrams per kilogram (mg/Kg) in all samples. Total BTEX exceeded the OCD remediation level of 50 mg/Kg in sample S-5, 0.5 feet bgs (195.58 mg/Kg). TPH exceeded the OCD remediation action level of 100 mg/Kg in the following soil samples:

Sample	Depth (Feet)	TPH (mg/Kg)
S-4	0.5	179
	1	179
S-5	0.5	19,700
	1	894
S-6	0.5	2,180
	1	358
S-7	0.5	21,400
	1	643
S-11	0.5	4,310

Chloride exceeded the OCD surface restoration (19.15.29.13 NMAC) limit of 600 mg/Kg in the following samples:

Sample	Depth, Feet	Chloride, mg/Kg
S-2	1	3,650
S-4	1	3,520
	3	1,330
S-5	0.5	832
	1	1,800
S-6	0.5	1,680
	1	4,810
S-7	0.5	5,440
	1	3,500

	3	1,650
S-8	0.5	1,190
	1	2,400

3.0 REMEDIATION PLAN

V-F proposes the following remedial actions:

- Excavate soil from an area measuring approximately 4,817 square feet, encompassing S-5 through S-13 to a depth of approximately 3 feet bgs.
- Collect five (5) point composite bottom and sidewall confirmation soil samples every 200 square feet of excavation and analyze for BTEX, TPH and chloride.
- Backfill excavations with clean caliche to approximately 1-foot bgs and clean soil to the surface assuming achievement of OCD remediation levels; and
- Prepare report with photographs for submittal to OCD District 1.

Figure 3 presents the proposed excavation areas.

4.0 VARIANCE REQUEST

V-F Petroleum, Inc. (V-F) requests a variance for the delineation and remediation at sample location S-4, due to the location of this sample point within a historic unlined pit, which dates to when the well was spudded (January 1, 1980). Delineation and remediation at this sample location would be related to the use of the unlined pit which was closed according to OCD rules at that time. V-F respectfully requests approval for this variance.

Tables

Table 1
Soil Sample Analytical Data Summary
Uno Mas #001
Lea County, New Mexico
North 32 .854767° West -103.413278

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)
Remediation Level:				**10**	**50**				**100**	**600**
S-1	0.5	7/13/2020	In-Situ	0.00100	0.00716	<25.3	<25.3	<25.3	<25.3	22.2
	1	7/13/2020	In-Situ	<0.00100	0.00295	<25.3	<25.3	<25.3	<25.3	99.2
S-2	0.5	7/13/2020	In-Situ	<0.00100	<0.00100	<25.3	<25.3	<25.3	<25.3	10.8
S-3	0.5	7/13/2020	In-Situ	<0.00100	<0.00100	<25.3	36.4	<25.3	36.4	11.2
S-4	0.5	7/13/2020	In-Situ	<0.00100	<0.00100	<27.2	179	<27.2	**179**	**608**
	1	7/13/2020	In-Situ	<0.00100	0.00267	<28.7	2,260	54.1	**2,310**	506
	1	8/6/2020	In-Situ	<0.00199	<0.00199	<49.9	179	<49.9	**179**	**840**
	3	8/6/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	**660**
	5	8/24/2020	In-Situ	--	--	--	--	--	--	**719**
S-5	0.5	7/13/2020	In-Situ	2.48	**195.58**	3,550	13,900	2,260	**19,700**	89.4
	1	8/6/2020	In-Situ	<0.00200	<0.00200	<50	694	200	**894**	88.6
	3	8/6/2020	In-Situ	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	44.2
	5	8/6/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	72.2
	7	8/6/2020	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	223
S-6	0.5	7/13/2020	In-Situ	<0.0200	1.552	630	11,400	1,690	**13,700**	**15,600**
	1	7/13/2020	In-Situ	0.00667	0.14747	518	9,460	1,480	**11,500**	**8,140**
	1	8/6/2020	In-Situ	<0.00198	<0.00199	<50.0	556	119	**675**	**6,090**
	3	8/6/2020	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	**604**
	5	8/24/2020	In-Situ	--	--	--	--	--	--	**1,070**
	10	8/24/2020	In-Situ	--	--	--	--	--	--	**1,660**

Table 1
Soil Sample Analytical Data Summary
Uno Mas #001
Lea County, New Mexico
North 32 .854767° West -103.413278

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)
Remediation Level:				**10**	**50**				**100**	**600**
	15	8/24/2020	In-Situ	--	--	--	--	--	--	**652**
	20	9/30/2020	In-Situ	--	--	--	--	--	--	**2,180**
	25	9/30/2020	In-Situ	--	--	--	--	--	--	**1,600**
	30	9/30/2020	In-Situ	--	--	--	--	--	--	495
	35	9/30/2020	In-Situ	--	--	--	--	--	--	122
S-7	0.5	7/13/2020	In-Situ	0.00139	0.04892	58.3	2,660	457	**3,180**	131
	1	7/13/2020	In-Situ	0.00817	0.08125	155	6,590	1,140	**7,880**	**686**
	1	8/6/2020	In-Situ	<0.00198	<0.00198	<50.0	1,100	271	**1,370**	146
	3	8/6/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	421
S-8	0.5	7/13/2020	In-Situ	0.00515	0.42015	427	6,840	1,070	**8,340**	99.6
	1	8/6/2020	In-Situ	0.0409	0.234	<249	10,800	1,950	**12,800**	56.2
	3	8/6/2020	In-Situ	0.0536	2.88	<49.9	394	64	**458**	37.8
	5	8/24/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	--
	10	8/24/2020	In-Situ	--	--	<49.9	<49.9	<49.9	<49.9	--
S-9	0.5	7/13/2020	In-Situ	0.0225	0.0858	30.8	679	119	**828**	51.4
	1	8/6/2020	In-Situ	<0.00198	<0.00198	<50.0	60.1	<50.0	60.1	78.8
	3	8/6/2020	In-Situ	<0.00198	<0.00198	<50.0	91.6	<50.0	91.6	41.5
S-10	0.5	7/13/2020	In-Situ	0.116	6.921	2,090	28,100	5,280	**35,500**	166
	1	7/13/2020	In-Situ	<0.0200	0.255	50.4	1,150	193	**1,390**	541
	1	8/6/2020	In-Situ	<0.00198	0.131	<50.0	1,580	264	**1,840**	144
	3	8/6/2020	In-Situ	<0.00201	<0.00201	<50.0	96.6	<50.0	96.6	312

Table 1
Soil Sample Analytical Data Summary
Uno Mas #001
Lea County, New Mexico
North 32 .854767° West -103.413278

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)
Remediation Level:				**10**	**50**				**100**	**600**
	5	8/6/2020	In-Situ	<0.00200	<0.00200	<49.9	1,460	262	**1,720**	448
	5	8/24/2020	In-Situ	--	--	<49.9	<49.9	<49.9	<49.9	--
	10	8/24/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	--
S-11	0.5	7/13/2020	In-Situ	0.116	0.742	48.6	3,160	588	**3,800**	542
	1	7/13/2020	In-Situ	1.16	32.01	2,860	7,660	1,370	**11,900**	**850**
	1	8/6/2020	In-Situ	<0.00199	<0.00199	<49.9	97.2	<49.9	97.2	**882**
	3	8/6/2020	In-Situ	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	**651**
	5	8/24/2020	In-Situ	--	--	--	--	--	--	554
	10	8/24/2020	In-Situ	--	--	--	--	--	--	197
S-12	0.5	7/13/2020	In-Situ	0.0610	0.2734	71.4	2,060	340	**2,480**	297
	1	8/6/2020	In-Situ	0.0400	0.147	<249	4,820	959	**5,780**	59.7
	3	8/6/2020	In-Situ	<0.00200	0.140	<49.8	146	<49.8	**146**	110
	5	8/24/2020	In-Situ	--	--	<49.9	<49.9	<49.9	<49.9	--
	10	8/24/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	--
S-13	0.5	7/13/2020	In-Situ	0.0447	0.0938	<27.8	2,010	380	**2,390**	119
	1	7/13/2020	In-Situ	<0.00200	<0.00200	<27.8	374	79.9	**454**	58.5
	1.5	8/6/2020	In-Situ	<0.00199	<0.00199	<50.0	79.9	<50.0	79.9	35.7
S-14	0.5	8/11/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<4.96
	1	8/11/2020	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<5.03

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

Table 1
Soil Sample Analytical Data Summary
Uno Mas #001
Lea County, New Mexico
North 32 .854767° West -103.413278

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)
Remediation Level:				**10**	**50**				**100**	**600**

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

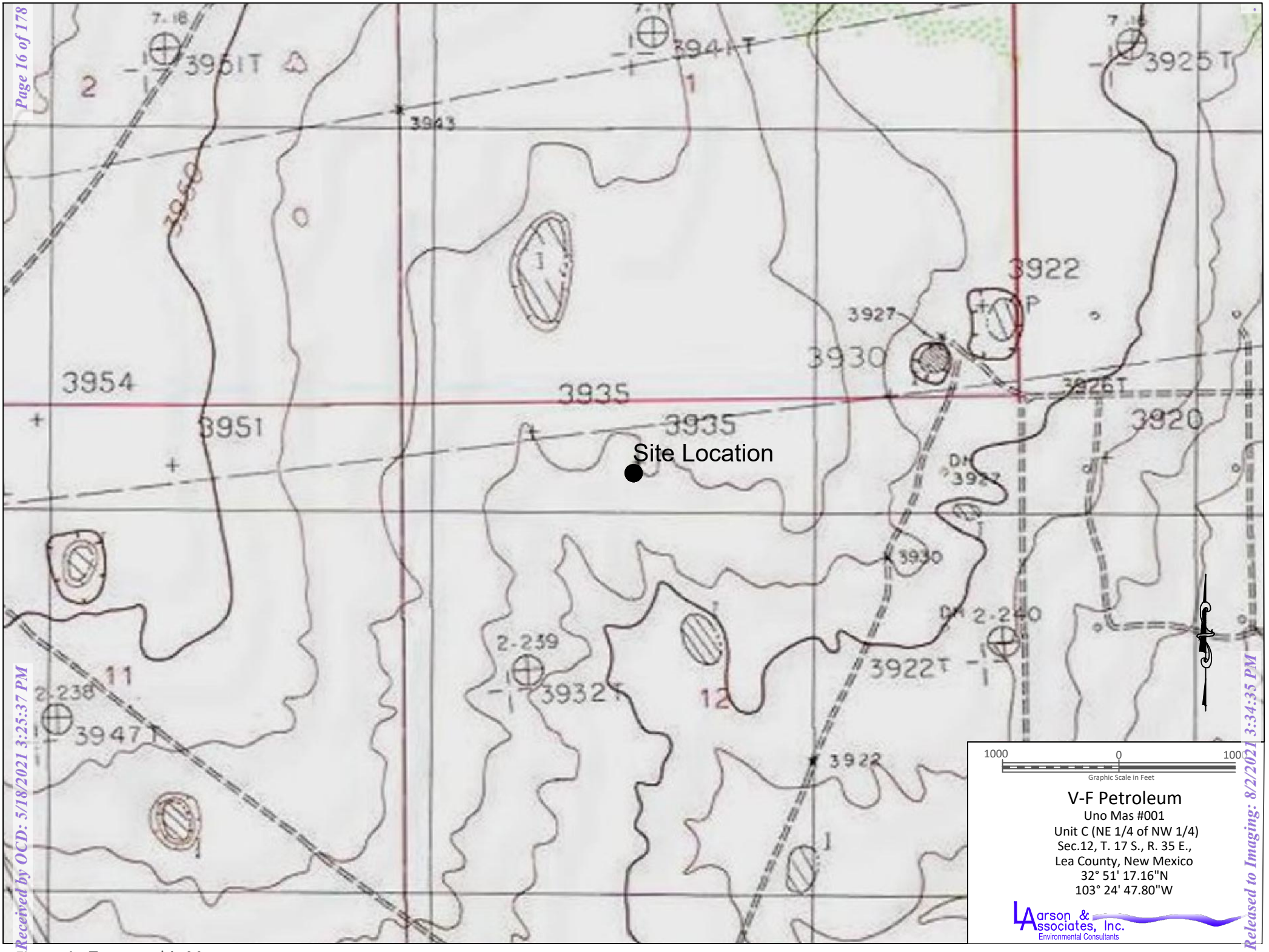

Figure 1 - Topographic Map

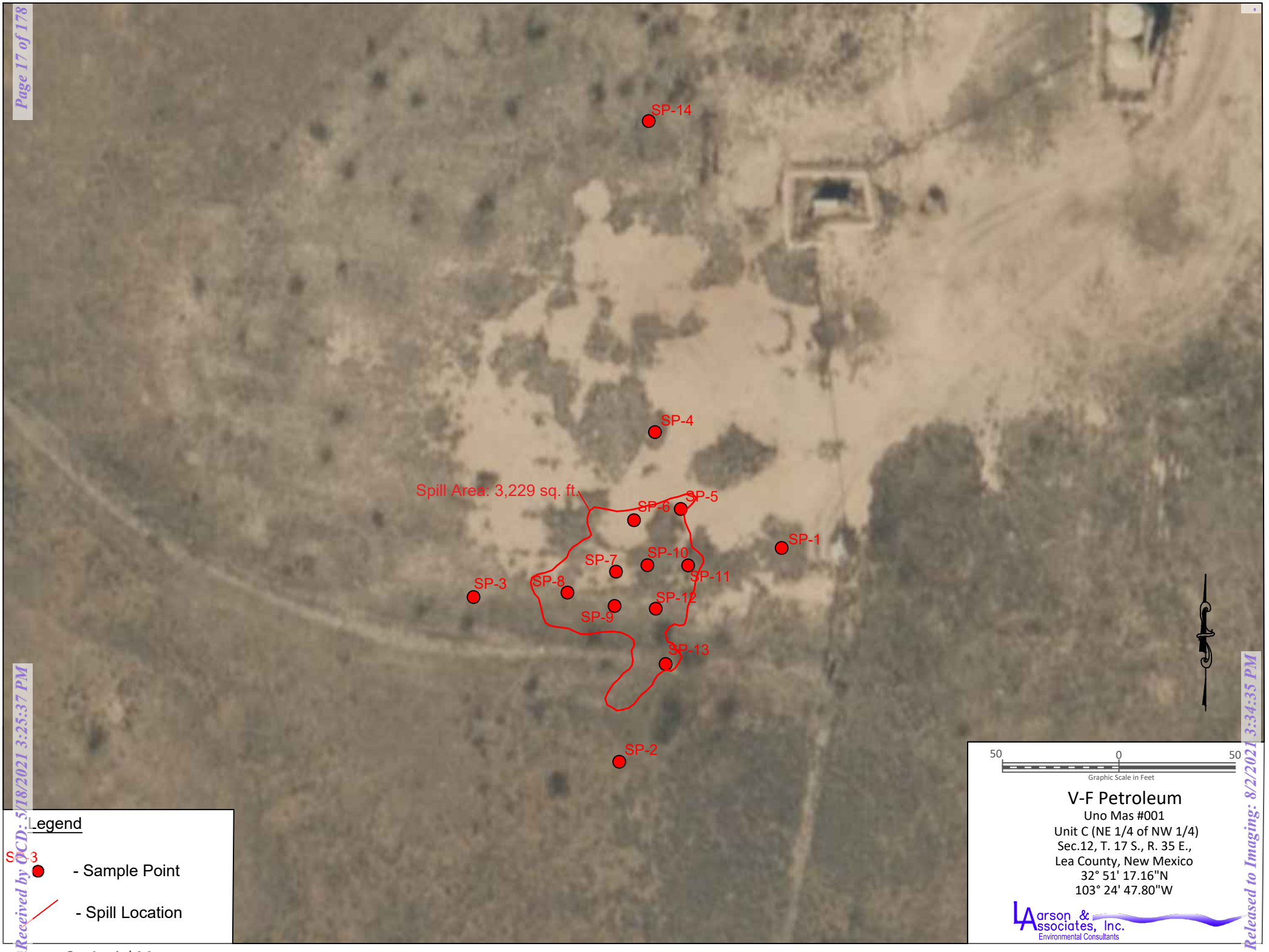

Figure 2 - Aerial Map

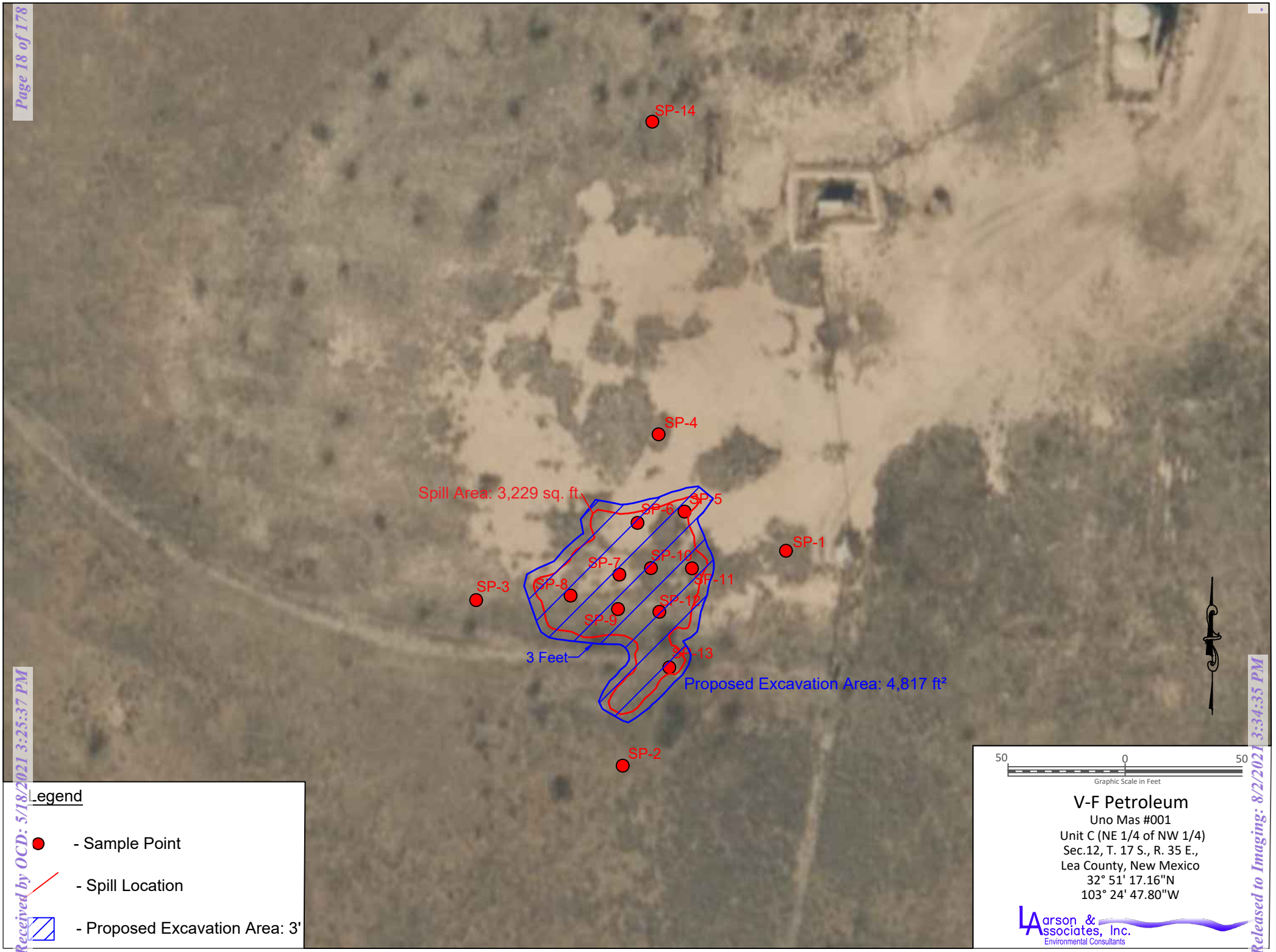

Figure 3 - Aerial Map Showing Proposed Excavation Area

Appendix A

Initial C-141

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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: V-F Petroleum, Inc.	OGRID: 24010
Contact Name: Bill Pierce	Contact Telephone: 432-683-3344
Contact email: bill@vfpetroleum.com	Incident # *(assigned by OCD)*
Contact mailing address: 500 W Texas Ave, Midland, Tx 79701	

Location of Release Source

Latitude: 32.854767°N Longitude: -103.413278°W
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Uno Mas #001	Site Type: Gas
Date Release Discovered: 7/9/2020	API#: 30-025-26593

Unit Letter	Section	Township	Range	County
C	12	17S	35E	Lea

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released 130 (bbls)	Volume Recovered 0 (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: Illegal dumping.		

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Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
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? The release was greater than 25 bbls of liquid.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? By Bill Pierce, phone call to NMOCD and Mike Bratcher on 7/9/2020; 8:38 AM MST	

Initial Response

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

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

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

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

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

Printed Name: Bill Pierce Title: Engineer

Signature: Bill Pierce Date: 04-09-2021

email: bill@vfpetroleum.com Telephone: 432-683-3344

OCD Only

Received by: _____ Date: _____

Appendix B

Karst Risk Potential

*New Mexico Kart or No Karst - QGIS

Project Edit View Layer Settings Plugins Vector Raster Database Web Mesh Processing Help

Browser

- Favorites
- Spatial Bookmarks
- Project Home
- Home
- C:\
- D:\
- L:\
- Z:\
- GeoPackage
- SpatiaLite
- PostGIS
- MSSQL
- Oracle
- DB2
- WMS/WMTS
- XYZ Tiles
- WCS
- WFS / OGC API - Features
- OWS
- ArcGisMapServer
- ArcGisFeatureServer
- GeoNode

Layers

- Added geom info
- carlsbad_west
- Karst_or_No_Karst
  - High
  - Low
  - Medium
- Bing Satellite

Low

Appendix C

Laboratory Reports

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
1400 Rankin Hwy
Midland, TX 79701

PBELAB

Analytical Report

Prepared for:

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Uno Mas

Project Number: 20-0128-01

Location: NM

Lab Order Number: 0G14001

NELAP ACCREDITED TNI LABORATORY

Current Certification

Report Date: 07/22/20

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Uno Mas
Project Number: 20-0128-01
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP-1 @ 0.5'	0G14001-01	Soil	07/13/20 11:30	07-14-2020 08:48
SP-1 @ 1'	0G14001-02	Soil	07/13/20 11:35	07-14-2020 08:48
SP-2 @ 0.5'	0G14001-03	Soil	07/13/20 11:40	07-14-2020 08:48
SP-3 @ 0.5'	0G14001-04	Soil	07/13/20 11:45	07-14-2020 08:48
SP-4 @ 0.5'	0G14001-05	Soil	07/13/20 11:50	07-14-2020 08:48
SP-4 @ 1'	0G14001-06	Soil	07/13/20 11:55	07-14-2020 08:48
SP-5 @ 0.5'	0G14001-07	Soil	07/13/20 12:00	07-14-2020 08:48
SP-6 @ 0.5'	0G14001-08	Soil	07/13/20 12:05	07-14-2020 08:48
SP-6 @ 1'	0G14001-09	Soil	07/13/20 12:10	07-14-2020 08:48
SP-7 @ 0.5'	0G14001-10	Soil	07/13/20 12:15	07-14-2020 08:48
SP-7 @ 1'	0G14001-11	Soil	07/13/20 12:20	07-14-2020 08:48
SP-8 @ 0.5'	0G14001-12	Soil	07/13/20 12:25	07-14-2020 08:48
SP-9 @ 0.5'	0G14001-13	Soil	07/13/20 12:30	07-14-2020 08:48
SP-10 @ 0.5'	0G14001-14	Soil	07/13/20 12:35	07-14-2020 08:48
SP-10 @ 1'	0G14001-15	Soil	07/13/20 12:40	07-14-2020 08:48
SP-11 @ 0.5'	0G14001-16	Soil	07/13/20 12:45	07-14-2020 08:48
SP-11 @ 1'	0G14001-17	Soil	07/13/20 12:50	07-14-2020 08:48
SP-12 @ 0.5'	0G14001-18	Soil	07/13/20 12:55	07-14-2020 08:48
SP-13 @ 0.5'	0G14001-19	Soil	07/13/20 13:00	07-14-2020 08:48
SP-13 @ 1'	0G14001-20	Soil	07/13/20 13:05	07-14-2020 08:48

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-1 @ 0.5'

0G14001-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	**0.00100**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 15:31	EPA 8021B	
Toluene	**0.00352**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 15:31	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 15:31	EPA 8021B	
Xylene (p/m)	**0.00264**	0.00200	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 15:31	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 15:31	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*97.1 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 15:31*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*94.8 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 15:31*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**22.2**	1.01	mg/kg dry	1	P0G1509	07/15/20 16:47	07/16/20 01:36	EPA 300.0	
% Moisture	**1.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.3	mg/kg dry	1	P0G1411	07/14/20 14:19	07/14/20 23:21	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0G1411	07/14/20 14:19	07/14/20 23:21	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0G1411	07/14/20 14:19	07/14/20 23:21	TPH 8015M	
Surrogate: 1-Chlorooctane		*83.8 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/14/20 23:21*	*TPH 8015M*	
Surrogate: o-Terphenyl		*94.5 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/14/20 23:21*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	07/14/20 14:19	07/14/20 23:21	calc	

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-1 @ 1'

0G14001-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 15:52	EPA 8021B	
Toluene	**0.00295**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 15:52	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 15:52	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 15:52	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 15:52	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*96.7 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 15:52*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*96.5 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 15:52*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**99.2**	1.01	mg/kg dry	1	P0G1509	07/15/20 16:47	07/16/20 02:24	EPA 300.0	
% Moisture	**1.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.3	mg/kg dry	1	P0G1411	07/14/20 14:19	07/14/20 23:45	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0G1411	07/14/20 14:19	07/14/20 23:45	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0G1411	07/14/20 14:19	07/14/20 23:45	TPH 8015M	
Surrogate: 1-Chlorooctane		*84.5 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/14/20 23:45*	*TPH 8015M*	
Surrogate: o-Terphenyl		*96.9 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/14/20 23:45*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	07/14/20 14:19	07/14/20 23:45	calc	

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-2 @ 0.5'

0G14001-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 16:54	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 16:54	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 16:54	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 16:54	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 16:54	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*94.0 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 16:54*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*98.8 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 16:54*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**10.8**	1.01	mg/kg dry	1	P0G1509	07/15/20 16:47	07/16/20 03:11	EPA 300.0	
% Moisture	**1.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.3	mg/kg dry	1	P0G1411	07/14/20 14:19	07/15/20 00:08	TPH 8015M	
>C12-C28	ND	25.3	mg/kg dry	1	P0G1411	07/14/20 14:19	07/15/20 00:08	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0G1411	07/14/20 14:19	07/15/20 00:08	TPH 8015M	
Surrogate: 1-Chlorooctane		*72.5 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/15/20 00:08*	*TPH 8015M*	
Surrogate: o-Terphenyl		*81.0 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/15/20 00:08*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.3	mg/kg dry	1	[CALC]	07/14/20 14:19	07/15/20 00:08	calc	

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-3 @ 0.5'

0G14001-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 17:15	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 17:15	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 17:15	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 17:15	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 17:15	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*90.9 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 17:15*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*95.2 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 17:15*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**11.2**	1.01	mg/kg dry	1	P0G1509	07/15/20 16:47	07/16/20 03:27	EPA 300.0	
% Moisture	**1.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.3	mg/kg dry	1	P0G1411	07/14/20 14:19	07/15/20 00:31	TPH 8015M	
>C12-C28	**36.4**	25.3	mg/kg dry	1	P0G1411	07/14/20 14:19	07/15/20 00:31	TPH 8015M	
>C28-C35	ND	25.3	mg/kg dry	1	P0G1411	07/14/20 14:19	07/15/20 00:31	TPH 8015M	
Surrogate: 1-Chlorooctane		*90.4 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/15/20 00:31*	*TPH 8015M*	
Surrogate: o-Terphenyl		*101 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/15/20 00:31*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**36.4**	25.3	mg/kg dry	1	[CALC]	07/14/20 14:19	07/15/20 00:31	calc	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Uno Mas
Project Number: 20-0128-01
Project Manager: Mark Larson

Fax: (432) 687-0456

SP-4 @ 0.5'

0G14001-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 17:36	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 17:36	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 17:36	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 17:36	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 17:36	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*90.9 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 17:36*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*95.1 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 17:36*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**608**	27.2	mg/kg dry	25	P0G1509	07/15/20 16:47	07/16/20 03:43	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P0G1411	07/14/20 14:19	07/15/20 00:54	TPH 8015M	
>C12-C28	**179**	27.2	mg/kg dry	1	P0G1411	07/14/20 14:19	07/15/20 00:54	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P0G1411	07/14/20 14:19	07/15/20 00:54	TPH 8015M	
Surrogate: 1-Chlorooctane		*88.0 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/15/20 00:54*	*TPH 8015M*	
Surrogate: o-Terphenyl		*103 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/15/20 00:54*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**179**	27.2	mg/kg dry	1	[CALC]	07/14/20 14:19	07/15/20 00:54	calc	

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-4 @ 1'

0G14001-06 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 17:57	EPA 8021B	
Toluene	**0.00267**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 17:57	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 17:57	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 17:57	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 17:57	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*86.8 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 17:57*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*99.9 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 17:57*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**506**	28.7	mg/kg dry	25	P0G1509	07/15/20 16:47	07/16/20 03:58	EPA 300.0	
% Moisture	**13.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.7	mg/kg dry	1	P0G1411	07/14/20 14:19	07/15/20 01:18	TPH 8015M	
>C12-C28	**2260**	28.7	mg/kg dry	1	P0G1411	07/14/20 14:19	07/15/20 01:18	TPH 8015M	
>C28-C35	**54.1**	28.7	mg/kg dry	1	P0G1411	07/14/20 14:19	07/15/20 01:18	TPH 8015M	
Surrogate: 1-Chlorooctane		*85.4 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/15/20 01:18*	*TPH 8015M*	
Surrogate: o-Terphenyl		*104 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/15/20 01:18*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**2310**	28.7	mg/kg dry	1	[CALC]	07/14/20 14:19	07/15/20 01:18	calc	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Uno Mas
Project Number: 20-0128-01
Project Manager: Mark Larson

Fax: (432) 687-0456

SP-5 @ 0.5'

0G14001-07 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**2.48**	0.100	mg/kg dry	100	P0G1408	07/14/20 09:57	07/15/20 11:39	EPA 8021B	
Toluene	**42.9**	0.100	mg/kg dry	100	P0G1408	07/14/20 09:57	07/15/20 11:39	EPA 8021B	
Ethylbenzene	**43.4**	0.100	mg/kg dry	100	P0G1408	07/14/20 09:57	07/15/20 11:39	EPA 8021B	
Xylene (p/m)	**63.6**	0.200	mg/kg dry	100	P0G1408	07/14/20 09:57	07/15/20 11:39	EPA 8021B	
Xylene (o)	**43.2**	0.100	mg/kg dry	100	P0G1408	07/14/20 09:57	07/15/20 11:39	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*87.4 %*		*75-125*	*P0G1408*	*07/14/20 09:57*	*07/15/20 11:39*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*88.2 %*		*75-125*	*P0G1408*	*07/14/20 09:57*	*07/15/20 11:39*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**89.4**	11.5	mg/kg dry	10	P0G1509	07/15/20 16:47	07/16/20 11:24	EPA 300.0	
% Moisture	**13.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**3550**	287	mg/kg dry	10	P0G1411	07/14/20 14:19	07/15/20 01:41	TPH 8015M	
>C12-C28	**13900**	287	mg/kg dry	10	P0G1411	07/14/20 14:19	07/15/20 01:41	TPH 8015M	
>C28-C35	**2260**	287	mg/kg dry	10	P0G1411	07/14/20 14:19	07/15/20 01:41	TPH 8015M	
Surrogate: 1-Chlorooctane		*102 %*		*70-130*	*P0G1411*	*07/14/20 14:19*	*07/15/20 01:41*	*TPH 8015M*	
Surrogate: o-Terphenyl		*116 %*		*70-130*	*P0G1411*	*07/14/20 14:19*	*07/15/20 01:41*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**19700**	287	mg/kg dry	10	[CALC]	07/14/20 14:19	07/15/20 01:41	calc	

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-6 @ 0.5'

0G14001-08 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0200	mg/kg dry	20	P0G1408	07/14/20 09:57	07/14/20 18:38	EPA 8021B	
Toluene	**0.296**	0.0200	mg/kg dry	20	P0G1408	07/14/20 09:57	07/14/20 18:38	EPA 8021B	
Ethylbenzene	**0.380**	0.0200	mg/kg dry	20	P0G1408	07/14/20 09:57	07/14/20 18:38	EPA 8021B	
Xylene (p/m)	**0.599**	0.0400	mg/kg dry	20	P0G1408	07/14/20 09:57	07/14/20 18:38	EPA 8021B	
Xylene (o)	**0.277**	0.0200	mg/kg dry	20	P0G1408	07/14/20 09:57	07/14/20 18:38	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*87.9 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 18:38*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*88.1 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 18:38*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**15600**	71.4	mg/kg dry	50	P0G1509	07/15/20 16:47	07/16/20 04:30	EPA 300.0	
% Moisture	**30.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**630**	179	mg/kg dry	5	P0G1411	07/14/20 14:19	07/15/20 02:04	TPH 8015M	
>C12-C28	**11400**	179	mg/kg dry	5	P0G1411	07/14/20 14:19	07/15/20 02:04	TPH 8015M	
>C28-C35	**1690**	179	mg/kg dry	5	P0G1411	07/14/20 14:19	07/15/20 02:04	TPH 8015M	
Surrogate: 1-Chlorooctane		*104 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/15/20 02:04*	*TPH 8015M*	
Surrogate: o-Terphenyl		*112 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/15/20 02:04*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**13700**	179	mg/kg dry	5	[CALC]	07/14/20 14:19	07/15/20 02:04	calc	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Uno Mas
Project Number: 20-0128-01
Project Manager: Mark Larson

Fax: (432) 687-0456

SP-6 @ 1'

0G14001-09 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00667**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 18:59	EPA 8021B	
Toluene	**0.0187**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 18:59	EPA 8021B	
Ethylbenzene	**0.0286**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 18:59	EPA 8021B	
Xylene (p/m)	**0.0576**	0.00200	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 18:59	EPA 8021B	
Xylene (o)	**0.0359**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 18:59	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*54.0 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 18:59*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*113 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 18:59*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**8140**	56.8	mg/kg dry	50	P0G1509	07/15/20 16:47	07/16/20 04:46	EPA 300.0	
% Moisture	**12.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**518**	142	mg/kg dry	5	P0G1411	07/14/20 14:19	07/15/20 02:28	TPH 8015M	
>C12-C28	**9460**	142	mg/kg dry	5	P0G1411	07/14/20 14:19	07/15/20 02:28	TPH 8015M	
>C28-C35	**1480**	142	mg/kg dry	5	P0G1411	07/14/20 14:19	07/15/20 02:28	TPH 8015M	
Surrogate: 1-Chlorooctane		*105 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/15/20 02:28*	*TPH 8015M*	
Surrogate: o-Terphenyl		*115 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/15/20 02:28*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**11500**	142	mg/kg dry	5	[CALC]	07/14/20 14:19	07/15/20 02:28	calc	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Uno Mas
Project Number: 20-0128-01
Project Manager: Mark Larson

Fax: (432) 687-0456

SP-7 @ 0.5'

0G14001-10 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00139**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 19:19	EPA 8021B	
Toluene	**0.00888**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 19:19	EPA 8021B	
Ethylbenzene	**0.0144**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 19:19	EPA 8021B	
Xylene (p/m)	**0.0172**	0.00200	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 19:19	EPA 8021B	
Xylene (o)	**0.00705**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 19:19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*76.6 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 19:19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*104 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 19:19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**131**	10.9	mg/kg dry	10	P0G1509	07/15/20 16:47	07/16/20 11:40	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**58.3**	27.2	mg/kg dry	1	P0G1411	07/14/20 14:19	07/15/20 02:52	TPH 8015M	
>C12-C28	**2660**	27.2	mg/kg dry	1	P0G1411	07/14/20 14:19	07/15/20 02:52	TPH 8015M	
>C28-C35	**457**	27.2	mg/kg dry	1	P0G1411	07/14/20 14:19	07/15/20 02:52	TPH 8015M	
Surrogate: 1-Chlorooctane		*94.4 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/15/20 02:52*	*TPH 8015M*	
Surrogate: o-Terphenyl		*113 %*	*70-130*		*P0G1411*	*07/14/20 14:19*	*07/15/20 02:52*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**3180**	27.2	mg/kg dry	1	[CALC]	07/14/20 14:19	07/15/20 02:52	calc	

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-7 @ 1'

0G14001-11 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00871**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 19:40	EPA 8021B	
Toluene	**0.0191**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 19:40	EPA 8021B	
Ethylbenzene	**0.0192**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 19:40	EPA 8021B	
Xylene (p/m)	**0.0261**	0.00200	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 19:40	EPA 8021B	
Xylene (o)	**0.00814**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 19:40	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*74.8 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 19:40*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*103 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 19:40*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**686**	10.8	mg/kg dry	10	P0G1509	07/15/20 16:47	07/16/20 05:17	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**155**	134	mg/kg dry	5	P0G1412	07/14/20 15:11	07/16/20 02:26	TPH 8015M	
>C12-C28	**6590**	134	mg/kg dry	5	P0G1412	07/14/20 15:11	07/16/20 02:26	TPH 8015M	
>C28-C35	**1140**	134	mg/kg dry	5	P0G1412	07/14/20 15:11	07/16/20 02:26	TPH 8015M	
Surrogate: 1-Chlorooctane		*84.1 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 02:26*	*TPH 8015M*	
Surrogate: o-Terphenyl		*80.4 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 02:26*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**7880**	134	mg/kg dry	5	[CALC]	07/14/20 15:11	07/16/20 02:26	calc	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Uno Mas
Project Number: 20-0128-01
Project Manager: Mark Larson

Fax: (432) 687-0456

SP-8 @ 0.5'

0G14001-12 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00515**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 20:01	EPA 8021B	
Toluene	**0.0499**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 20:01	EPA 8021B	
Ethylbenzene	**0.0671**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 20:01	EPA 8021B	
Xylene (p/m)	**0.123**	0.00200	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 20:01	EPA 8021B	
Xylene (o)	**0.175**	0.00100	mg/kg dry	1	P0G1408	07/14/20 09:57	07/14/20 20:01	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*66.5 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 20:01*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*103 %*	*75-125*		*P0G1408*	*07/14/20 09:57*	*07/14/20 20:01*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**99.6**	1.23	mg/kg dry	1	P0G1606	07/16/20 14:08	07/16/20 16:30	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**427**	154	mg/kg dry	5	P0G1412	07/14/20 15:11	07/16/20 02:49	TPH 8015M	
>C12-C28	**6840**	154	mg/kg dry	5	P0G1412	07/14/20 15:11	07/16/20 02:49	TPH 8015M	
>C28-C35	**1070**	154	mg/kg dry	5	P0G1412	07/14/20 15:11	07/16/20 02:49	TPH 8015M	
Surrogate: 1-Chlorooctane		*97.7 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 02:49*	*TPH 8015M*	
Surrogate: o-Terphenyl		*65.2 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 02:49*	*TPH 8015M*	*S-GC*
Total Petroleum Hydrocarbon C6-C35	**8340**	154	mg/kg dry	5	[CALC]	07/14/20 15:11	07/16/20 02:49	calc	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Uno Mas
Project Number: 20-0128-01
Project Manager: Mark Larson

Fax: (432) 687-0456

SP-9 @ 0.5'

0G14001-13 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.0225**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 16:55	EPA 8021B	
Toluene	**0.0429**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 16:55	EPA 8021B	
Ethylbenzene	**0.0204**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 16:55	EPA 8021B	
Xylene (p/m)	ND	0.0400	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 16:55	EPA 8021B	
Xylene (o)	ND	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 16:55	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*91.3 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/15/20 16:55*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*92.1 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/15/20 16:55*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**51.4**	5.62	mg/kg dry	5	P0G1606	07/16/20 14:08	07/17/20 10:24	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**30.8**	28.1	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 03:12	TPH 8015M	
>C12-C28	**679**	28.1	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 03:12	TPH 8015M	
>C28-C35	**119**	28.1	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 03:12	TPH 8015M	
Surrogate: 1-Chlorooctane		*82.3 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 03:12*	*TPH 8015M*	
Surrogate: o-Terphenyl		*103 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 03:12*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**828**	28.1	mg/kg dry	1	[CALC]	07/14/20 15:11	07/16/20 03:12	calc	

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-10 @ 0.5'

0G14001-14 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.116**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/16/20 10:06	EPA 8021B	
Toluene	**0.795**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/16/20 10:06	EPA 8021B	
Ethylbenzene	**1.13**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/16/20 10:06	EPA 8021B	
Xylene (p/m)	**2.95**	0.0400	mg/kg dry	20	P0G1505	07/15/20 14:19	07/16/20 10:06	EPA 8021B	
Xylene (o)	**1.93**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/16/20 10:06	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*101 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/16/20 10:06*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*88.9 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/16/20 10:06*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**166**	10.9	mg/kg dry	10	P0G1606	07/16/20 14:08	07/17/20 10:40	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**2090**	272	mg/kg dry	10	P0G1412	07/14/20 15:11	07/16/20 12:38	TPH 8015M	
>C12-C28	**28100**	272	mg/kg dry	10	P0G1412	07/14/20 15:11	07/16/20 12:38	TPH 8015M	
>C28-C35	**5280**	272	mg/kg dry	10	P0G1412	07/14/20 15:11	07/16/20 12:38	TPH 8015M	
Surrogate: 1-Chlorooctane		*109 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 12:38*	*TPH 8015M*	
Surrogate: o-Terphenyl		*120 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 12:38*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**35500**	272	mg/kg dry	10	[CALC]	07/14/20 15:11	07/16/20 12:38	calc	

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-10 @ 1'

0G14001-15 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 17:36	EPA 8021B	
Toluene	**0.0596**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 17:36	EPA 8021B	
Ethylbenzene	**0.0536**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 17:36	EPA 8021B	
Xylene (p/m)	**0.0978**	0.0400	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 17:36	EPA 8021B	
Xylene (o)	**0.0440**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 17:36	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*85.9 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/15/20 17:36*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*90.6 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/15/20 17:36*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**541**	11.0	mg/kg dry	10	P0G1606	07/16/20 14:08	07/17/20 10:56	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**50.4**	27.5	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 03:59	TPH 8015M	
>C12-C28	**1150**	27.5	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 03:59	TPH 8015M	
>C28-C35	**193**	27.5	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 03:59	TPH 8015M	
Surrogate: 1-Chlorooctane		*86.5 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 03:59*	*TPH 8015M*	
Surrogate: o-Terphenyl		*106 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 03:59*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**1390**	27.5	mg/kg dry	1	[CALC]	07/14/20 15:11	07/16/20 03:59	calc	

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-11 @ 0.5'

0G14001-16 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.116**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 17:57	EPA 8021B	
Toluene	**0.210**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 17:57	EPA 8021B	
Ethylbenzene	**0.101**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 17:57	EPA 8021B	
Xylene (p/m)	**0.121**	0.0400	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 17:57	EPA 8021B	
Xylene (o)	**0.194**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 17:57	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*87.2 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/15/20 17:57*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*93.2 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/15/20 17:57*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**542**	1.03	mg/kg dry	1	P0G1606	07/16/20 14:08	07/16/20 17:33	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**48.6**	25.8	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 04:23	TPH 8015M	
>C12-C28	**3160**	25.8	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 04:23	TPH 8015M	
>C28-C35	**588**	25.8	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 04:23	TPH 8015M	
Surrogate: 1-Chlorooctane		*95.0 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 04:23*	*TPH 8015M*	
Surrogate: o-Terphenyl		*116 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 04:23*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**3800**	25.8	mg/kg dry	1	[CALC]	07/14/20 15:11	07/16/20 04:23	calc	

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-11 @ 1'

0G14001-17 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**1.16**	0.100	mg/kg dry	100	P0G1505	07/15/20 14:19	07/15/20 18:18	EPA 8021B	
Toluene	**3.34**	0.100	mg/kg dry	100	P0G1505	07/15/20 14:19	07/15/20 18:18	EPA 8021B	
Ethylbenzene	**2.09**	0.100	mg/kg dry	100	P0G1505	07/15/20 14:19	07/15/20 18:18	EPA 8021B	
Xylene (p/m)	**9.32**	0.200	mg/kg dry	100	P0G1505	07/15/20 14:19	07/15/20 18:18	EPA 8021B	
Xylene (o)	**16.1**	0.100	mg/kg dry	100	P0G1505	07/15/20 14:19	07/15/20 18:18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*80.4 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/15/20 18:18*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*91.0 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/15/20 18:18*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**850**	11.2	mg/kg dry	10	P0G1606	07/16/20 14:08	07/16/20 17:48	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**2860**	281	mg/kg dry	10	P0G1412	07/14/20 15:11	07/16/20 04:46	TPH 8015M	
>C12-C28	**7660**	281	mg/kg dry	10	P0G1412	07/14/20 15:11	07/16/20 04:46	TPH 8015M	
>C28-C35	**1370**	281	mg/kg dry	10	P0G1412	07/14/20 15:11	07/16/20 04:46	TPH 8015M	
Surrogate: 1-Chlorooctane		*121 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 04:46*	*TPH 8015M*	
Surrogate: o-Terphenyl		*84.8 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 04:46*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**11900**	281	mg/kg dry	10	[CALC]	07/14/20 15:11	07/16/20 04:46	calc	

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-12 @ 0.5'

0G14001-18 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.0610**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 18:38	EPA 8021B	
Toluene	**0.0750**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 18:38	EPA 8021B	
Ethylbenzene	**0.0269**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 18:38	EPA 8021B	
Xylene (p/m)	**0.0586**	0.0400	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 18:38	EPA 8021B	
Xylene (o)	**0.0519**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 18:38	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*91.0 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/15/20 18:38*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*91.8 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/15/20 18:38*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**297**	5.95	mg/kg dry	5	P0G1606	07/16/20 14:08	07/16/20 18:04	EPA 300.0	
% Moisture	**16.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**71.4**	29.8	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 05:10	TPH 8015M	
>C12-C28	**2060**	29.8	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 05:10	TPH 8015M	
>C28-C35	**340**	29.8	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 05:10	TPH 8015M	
Surrogate: 1-Chlorooctane		*86.6 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 05:10*	*TPH 8015M*	
Surrogate: o-Terphenyl		*108 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 05:10*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**2480**	29.8	mg/kg dry	1	[CALC]	07/14/20 15:11	07/16/20 05:10	calc	

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

SP-13 @ 0.5'

0G14001-19 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.0447**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 18:59	EPA 8021B	
Toluene	**0.0491**	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 18:59	EPA 8021B	
Ethylbenzene	ND	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 18:59	EPA 8021B	
Xylene (p/m)	ND	0.0400	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 18:59	EPA 8021B	
Xylene (o)	ND	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 18:59	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*88.4 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/15/20 18:59*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*92.4 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/15/20 18:59*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**119**	1.11	mg/kg dry	1	P0G1606	07/16/20 14:08	07/16/20 18:20	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 05:33	TPH 8015M	
>C12-C28	**2010**	27.8	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 05:33	TPH 8015M	
>C28-C35	**380**	27.8	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 05:33	TPH 8015M	
Surrogate: 1-Chlorooctane		*84.7 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 05:33*	*TPH 8015M*	
Surrogate: o-Terphenyl		*103 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 05:33*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**2390**	27.8	mg/kg dry	1	[CALC]	07/14/20 15:11	07/16/20 05:33	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-13 @ 1'

0G14001-20 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 19:19	EPA 8021B	
Toluene	ND	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 19:19	EPA 8021B	
Ethylbenzene	ND	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 19:19	EPA 8021B	
Xylene (p/m)	ND	0.0400	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 19:19	EPA 8021B	
Xylene (o)	ND	0.0200	mg/kg dry	20	P0G1505	07/15/20 14:19	07/15/20 19:19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*87.7 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/15/20 19:19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*93.3 %*	*75-125*		*P0G1505*	*07/15/20 14:19*	*07/15/20 19:19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**58.5**	1.11	mg/kg dry	1	P0G1606	07/16/20 14:08	07/16/20 18:36	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P0G1501	07/15/20 08:59	07/15/20 09:02	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 05:56	TPH 8015M	
>C12-C28	**374**	27.8	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 05:56	TPH 8015M	
>C28-C35	**79.9**	27.8	mg/kg dry	1	P0G1412	07/14/20 15:11	07/16/20 05:56	TPH 8015M	
Surrogate: 1-Chlorooctane		*95.5 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 05:56*	*TPH 8015M*	
Surrogate: o-Terphenyl		*115 %*	*70-130*		*P0G1412*	*07/14/20 15:11*	*07/16/20 05:56*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**454**	27.8	mg/kg dry	1	[CALC]	07/14/20 15:11	07/16/20 05:56	calc	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Uno Mas
Project Number: 20-0128-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0G1408 - General Preparation (GC)										
Blank (P0G1408-BLK1)				Prepared & Analyzed: 07/14/20						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	*0.107*		*"*	*0.120*		*89.4*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.108*		*"*	*0.120*		*89.7*	*75-125*			
LCS (P0G1408-BS1)				Prepared & Analyzed: 07/14/20						
Benzene	0.0977	0.00100	mg/kg wet	0.100		97.7	80-120			
Toluene	0.0952	0.00100	"	0.100		95.2	80-120			
Ethylbenzene	0.0987	0.00100	"	0.100		98.7	80-120			
Xylene (p/m)	0.214	0.00200	"	0.200		107	80-120			
Xylene (o)	0.0975	0.00100	"	0.100		97.5	80-120			
Surrogate: 4-Bromofluorobenzene	*0.109*		*"*	*0.120*		*91.1*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.113*		*"*	*0.120*		*94.2*	*75-125*			
LCS Dup (P0G1408-BSD1)				Prepared & Analyzed: 07/14/20						
Benzene	0.107	0.00100	mg/kg wet	0.100		107	80-120	8.85	20	
Toluene	0.109	0.00100	"	0.100		109	80-120	13.2	20	
Ethylbenzene	0.105	0.00100	"	0.100		105	80-120	6.54	20	
Xylene (p/m)	0.239	0.00200	"	0.200		119	80-120	11.0	20	
Xylene (o)	0.110	0.00100	"	0.100		110	80-120	12.0	20	
Surrogate: 4-Bromofluorobenzene	*0.109*		*"*	*0.120*		*91.2*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.114*		*"*	*0.120*		*94.7*	*75-125*			
Calibration Blank (P0G1408-CCB1)				Prepared & Analyzed: 07/14/20						
Benzene	0.00		mg/kg wet							
Toluene	0.910		"							
Ethylbenzene	0.420		"							
Xylene (p/m)	0.800		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.105*		*"*	*0.120*		*87.7*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.109*		*"*	*0.120*		*91.2*	*75-125*			

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Midland TX, 79710

Project: Uno Mas
Project Number: 20-0128-01
Project Manager: Mark Larson

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Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0G1408 - General Preparation (GC)										
Calibration Blank (P0G1408-CCB2)				Prepared & Analyzed: 07/14/20						
Benzene	0.00		mg/kg wet							
Toluene	0.710		"							
Ethylbenzene	0.610		"							
Xylene (p/m)	1.31		"							
Xylene (o)	0.390		"							
Surrogate: 4-Bromofluorobenzene	*0.113*		*"*	*0.120*		*94.2*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.111*		*"*	*0.120*		*92.3*	*75-125*			
Calibration Check (P0G1408-CCV1)				Prepared & Analyzed: 07/14/20						
Benzene	0.102	0.00100	mg/kg wet	0.100		102	80-120			
Toluene	0.105	0.00100	"	0.100		105	80-120			
Ethylbenzene	0.111	0.00100	"	0.100		111	80-120			
Xylene (p/m)	0.231	0.00200	"	0.200		116	80-120			
Xylene (o)	0.107	0.00100	"	0.100		107	80-120			
Surrogate: 4-Bromofluorobenzene	*0.114*		*"*	*0.120*		*94.9*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.113*		*"*	*0.120*		*93.9*	*75-125*			
Calibration Check (P0G1408-CCV2)				Prepared & Analyzed: 07/14/20						
Benzene	0.112	0.00100	mg/kg wet	0.100		112	80-120			
Toluene	0.107	0.00100	"	0.100		107	80-120			
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120			
Xylene (p/m)	0.229	0.00200	"	0.200		115	80-120			
Xylene (o)	0.113	0.00100	"	0.100		113	80-120			
Surrogate: 4-Bromofluorobenzene	*0.115*		*"*	*0.120*		*95.4*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.115*		*"*	*0.120*		*96.0*	*75-125*			
Calibration Check (P0G1408-CCV3)				Prepared & Analyzed: 07/14/20						
Benzene	0.108	0.00100	mg/kg wet	0.100		108	80-120			
Toluene	0.108	0.00100	"	0.100		108	80-120			
Ethylbenzene	0.113	0.00100	"	0.100		113	80-120			
Xylene (p/m)	0.221	0.00200	"	0.200		111	80-120			
Xylene (o)	0.109	0.00100	"	0.100		109	80-120			
Surrogate: 4-Bromofluorobenzene	*0.108*		*"*	*0.120*		*90.0*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.113*		*"*	*0.120*		*94.5*	*75-125*			

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Project: Uno Mas
Project Number: 20-0128-01
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Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0G1408 - General Preparation (GC)										
Matrix Spike (P0G1408-MS1)		**Source: 0G14001-01**		Prepared & Analyzed: 07/14/20						
Benzene	0.0717	0.00100	mg/kg dry	0.101	0.00100	70.0	80-120			QM-07
Toluene	0.0650	0.00100	"	0.101	0.00352	60.9	80-120			QM-07
Ethylbenzene	0.0702	0.00100	"	0.101	0.000899	68.6	80-120			QM-07
Xylene (p/m)	0.116	0.00200	"	0.202	0.00264	55.9	80-120			QM-07
Xylene (o)	0.0529	0.00100	"	0.101	ND	52.4	80-120			QM-07
Surrogate: 4-Bromofluorobenzene	*0.108*		*"*	*0.121*		*88.7*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.118*		*"*	*0.121*		*97.3*	*75-125*			
Matrix Spike Dup (P0G1408-MSD1)		**Source: 0G14001-01**		Prepared & Analyzed: 07/14/20						
Benzene	0.0877	0.00100	mg/kg dry	0.101	0.00100	85.8	80-120	20.4	20	QM-07
Toluene	0.0754	0.00100	"	0.101	0.00352	71.2	80-120	15.6	20	QM-07
Ethylbenzene	0.0848	0.00100	"	0.101	0.000899	83.1	80-120	19.1	20	
Xylene (p/m)	0.141	0.00200	"	0.202	0.00264	68.7	80-120	20.5	20	QM-07
Xylene (o)	0.0644	0.00100	"	0.101	ND	63.7	80-120	19.5	20	QM-07
Surrogate: 4-Bromofluorobenzene	*0.115*		*"*	*0.121*		*94.8*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.118*		*"*	*0.121*		*97.3*	*75-125*			
Batch P0G1505 - General Preparation (GC)										
Blank (P0G1505-BLK1)				Prepared & Analyzed: 07/15/20						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	*0.113*		*"*	*0.120*		*94.0*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.108*		*"*	*0.120*		*90.2*	*75-125*			

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Project: Uno Mas
Project Number: 20-0128-01
Project Manager: Mark Larson

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Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0G1505 - General Preparation (GC)										
LCS (P0G1505-BS1)				Prepared & Analyzed: 07/15/20						
Benzene	0.101	0.00100	mg/kg wet	0.100		101	80-120			
Toluene	0.0972	0.00100	"	0.100		97.2	80-120			
Ethylbenzene	0.103	0.00100	"	0.100		103	80-120			
Xylene (p/m)	0.217	0.00200	"	0.200		109	80-120			
Xylene (o)	0.0995	0.00100	"	0.100		99.5	80-120			
Surrogate: 4-Bromofluorobenzene	*0.112*		*"*	*0.120*		*93.0*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.116*		*"*	*0.120*		*96.2*	*75-125*			
LCS Dup (P0G1505-BSD1)				Prepared & Analyzed: 07/15/20						
Benzene	0.107	0.00100	mg/kg wet	0.100		107	80-120	6.07	20	
Toluene	0.107	0.00100	"	0.100		107	80-120	9.40	20	
Ethylbenzene	0.104	0.00100	"	0.100		104	80-120	1.02	20	
Xylene (p/m)	0.235	0.00200	"	0.200		117	80-120	7.61	20	
Xylene (o)	0.108	0.00100	"	0.100		108	80-120	7.98	20	
Surrogate: 4-Bromofluorobenzene	*0.110*		*"*	*0.120*		*91.4*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.115*		*"*	*0.120*		*95.6*	*75-125*			
Calibration Blank (P0G1505-CCB1)				Prepared & Analyzed: 07/15/20						
Benzene	0.00		mg/kg wet							
Toluene	0.790		"							
Ethylbenzene	0.480		"							
Xylene (p/m)	0.890		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.110*		*"*	*0.120*		*92.0*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.109*		*"*	*0.120*		*90.9*	*75-125*			
Calibration Blank (P0G1505-CCB2)				Prepared & Analyzed: 07/15/20						
Benzene	0.340		mg/kg wet							
Toluene	1.33		"							
Ethylbenzene	0.620		"							
Xylene (p/m)	1.07		"							
Xylene (o)	0.430		"							
Surrogate: 4-Bromofluorobenzene	*0.111*		*"*	*0.120*		*92.1*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.109*		*"*	*0.120*		*90.6*	*75-125*			

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Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0G1505 - General Preparation (GC)										
Calibration Check (P0G1505-CCV1)				Prepared & Analyzed: 07/15/20						
Benzene	0.0995	0.00100	mg/kg wet	0.100		99.5	80-120			
Toluene	0.104	0.00100	"	0.100		104	80-120			
Ethylbenzene	0.113	0.00100	"	0.100		113	80-120			
Xylene (p/m)	0.232	0.00200	"	0.200		116	80-120			
Xylene (o)	0.107	0.00100	"	0.100		107	80-120			
Surrogate: 4-Bromofluorobenzene	*0.118*		"	*0.120*		*98.6*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.115*		"	*0.120*		*95.6*	*75-125*			
Calibration Check (P0G1505-CCV2)				Prepared & Analyzed: 07/15/20						
Benzene	0.106	0.00100	mg/kg wet	0.100		106	80-120			
Toluene	0.109	0.00100	"	0.100		109	80-120			
Ethylbenzene	0.116	0.00100	"	0.100		116	80-120			
Xylene (p/m)	0.232	0.00200	"	0.200		116	80-120			
Xylene (o)	0.110	0.00100	"	0.100		110	80-120			
Surrogate: 4-Bromofluorobenzene	*0.111*		"	*0.120*		*92.7*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.116*		"	*0.120*		*96.3*	*75-125*			
Calibration Check (P0G1505-CCV3)				Prepared & Analyzed: 07/15/20						
Benzene	0.0956	0.00100	mg/kg wet	0.100		95.6	80-120			
Toluene	0.0930	0.00100	"	0.100		93.0	80-120			
Ethylbenzene	0.0985	0.00100	"	0.100		98.5	80-120			
Xylene (p/m)	0.199	0.00200	"	0.200		99.4	80-120			
Xylene (o)	0.0930	0.00100	"	0.100		93.0	80-120			
Surrogate: 4-Bromofluorobenzene	*0.104*		"	*0.120*		*87.1*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.116*		"	*0.120*		*96.7*	*75-125*			
Matrix Spike (P0G1505-MS1)	**Source: 0G14001-20**			Prepared & Analyzed: 07/15/20						
Benzene	0.111	0.00100	mg/kg dry	0.111	0.00778	93.2	80-120			
Toluene	0.110	0.00100	"	0.111	0.0196	81.6	80-120			
Ethylbenzene	0.109	0.00100	"	0.111	ND	97.9	80-120			
Xylene (p/m)	0.240	0.00200	"	0.222	0.00711	105	80-120			
Xylene (o)	0.111	0.00100	"	0.111	ND	100	80-120			
Surrogate: 4-Bromofluorobenzene	*0.119*		"	*0.133*		*89.3*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.126*		"	*0.133*		*94.5*	*75-125*			

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Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0G1505 - General Preparation (GC)										
Matrix Spike Dup (P0G1505-MSD1)	**Source: 0G14001-20**			Prepared & Analyzed: 07/15/20						
Benzene	0.120	0.00100	mg/kg dry	0.111	0.00778	101	80-120	8.07	20	
Toluene	0.117	0.00100	"	0.111	0.0196	87.7	80-120	7.23	20	
Ethylbenzene	0.110	0.00100	"	0.111	ND	99.4	80-120	1.50	20	
Xylene (p/m)	0.254	0.00200	"	0.222	0.00711	111	80-120	5.74	20	
Xylene (o)	0.118	0.00100	"	0.111	ND	107	80-120	6.16	20	
Surrogate: 4-Bromofluorobenzene	*0.117*		*"*	*0.133*		*88.1*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.130*		*"*	*0.133*		*97.4*	*75-125*			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0G1501 - * DEFAULT PREP *** **										
Blank (P0G1501-BLK1)				Prepared & Analyzed: 07/15/20						
% Moisture	ND	0.1	%							
Blank (P0G1501-BLK2)				Prepared & Analyzed: 07/15/20						
% Moisture	ND	0.1	%							
Blank (P0G1501-BLK3)				Prepared & Analyzed: 07/15/20						
% Moisture	ND	0.1	%							
Duplicate (P0G1501-DUP1)		**Source: 0G14002-04**		Prepared & Analyzed: 07/15/20						
% Moisture	9.0	0.1	%		10.0			10.5	20	
Duplicate (P0G1501-DUP2)		**Source: 0G14001-05**		Prepared & Analyzed: 07/15/20						
% Moisture	8.0	0.1	%		8.0			0.00	20	
Duplicate (P0G1501-DUP3)		**Source: 0G14001-20**		Prepared & Analyzed: 07/15/20						
% Moisture	10.0	0.1	%		10.0			0.00	20	
Duplicate (P0G1501-DUP4)		**Source: 0G14003-10**		Prepared & Analyzed: 07/15/20						
% Moisture	3.0	0.1	%		3.0			0.00	20	
Duplicate (P0G1501-DUP5)		**Source: 0G14005-02**		Prepared & Analyzed: 07/15/20						
% Moisture	4.0	0.1	%		3.0			28.6	20	R3
Batch P0G1509 - * DEFAULT PREP *** **										
LCS (P0G1509-BS1)				Prepared & Analyzed: 07/15/20						
Chloride	403	1.00	mg/kg wet	400		101	80-120			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0G1509 - * DEFAULT PREP *** **										
LCS Dup (P0G1509-BSD1)				Prepared & Analyzed: 07/15/20						
Chloride	404	1.00	mg/kg wet	400		101	80-120	0.446	20	
Calibration Check (P0G1509-CCV1)				Prepared & Analyzed: 07/15/20						
Chloride	20.7		mg/kg	20.0		104	0-200			
Calibration Check (P0G1509-CCV2)				Prepared: 07/15/20 Analyzed: 07/16/20						
Chloride	20.7		mg/kg	20.0		104	0-200			
Calibration Check (P0G1509-CCV3)				Prepared: 07/15/20 Analyzed: 07/16/20						
Chloride	19.7		mg/kg	20.0		98.4	0-200			
Matrix Spike (P0G1509-MS1)		**Source: 0G15011-01**		Prepared & Analyzed: 07/15/20						
Chloride	714	1.04	mg/kg dry	521	241	90.7	80-120			
Matrix Spike (P0G1509-MS2)		**Source: 0G14001-02**		Prepared: 07/15/20 Analyzed: 07/16/20						
Chloride	582	1.01	mg/kg dry	505	99.2	95.6	80-120			
Matrix Spike Dup (P0G1509-MSD1)		**Source: 0G15011-01**		Prepared & Analyzed: 07/15/20						
Chloride	752	1.04	mg/kg dry	521	241	98.1	80-120	5.28	20	
Matrix Spike Dup (P0G1509-MSD2)		**Source: 0G14001-02**		Prepared: 07/15/20 Analyzed: 07/16/20						
Chloride	645	1.01	mg/kg dry	505	99.2	108	80-120	10.2	20	
Batch P0G1606 - * DEFAULT PREP *** **										
LCS (P0G1606-BS1)				Prepared & Analyzed: 07/16/20						
Chloride	400	1.00	mg/kg wet	400		100	80-120			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0G1606 - * DEFAULT PREP *** **										
LCS Dup (P0G1606-BSD1)				Prepared & Analyzed: 07/16/20						
Chloride	400	1.00	mg/kg wet	400		100	80-120	0.0599	20	
Calibration Check (P0G1606-CCV1)				Prepared & Analyzed: 07/16/20						
Chloride	19.8		mg/kg	20.0		98.8	0-200			
Calibration Check (P0G1606-CCV2)				Prepared & Analyzed: 07/16/20						
Chloride	19.6		mg/kg	20.0		98.0	0-200			
Calibration Check (P0G1606-CCV3)				Prepared & Analyzed: 07/16/20						
Chloride	19.8		mg/kg	20.0		98.8	0-200			
Matrix Spike (P0G1606-MS1)		**Source: 0G16001-01**		Prepared & Analyzed: 07/16/20						
Chloride	547	1.02	mg/kg dry	510	75.0	92.5	80-120			
Matrix Spike (P0G1606-MS2)		**Source: 0G14003-01**		Prepared & Analyzed: 07/16/20						
Chloride	20500	58.8	mg/kg dry	5880	13300	122	80-120			QM-05
Matrix Spike Dup (P0G1606-MSD1)		**Source: 0G16001-01**		Prepared & Analyzed: 07/16/20						
Chloride	590	1.02	mg/kg dry	510	75.0	101	80-120	7.68	20	
Matrix Spike Dup (P0G1606-MSD2)		**Source: 0G14003-01**		Prepared & Analyzed: 07/16/20						
Chloride	19500	58.8	mg/kg dry	5880	13300	105	80-120	4.97	20	

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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0G1411 - TX 1005										
Blank (P0G1411-BLK1)				Prepared & Analyzed: 07/14/20						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*90.0*		*"*	*100*		*90.0*	*70-130*			
Surrogate: o-Terphenyl	*47.4*		*"*	*50.0*		*94.9*	*70-130*			
LCS (P0G1411-BS1)				Prepared & Analyzed: 07/14/20						
C6-C12	934	25.0	mg/kg wet	1000		93.4	75-125			
>C12-C28	1050	25.0	"	1000		105	75-125			
Surrogate: 1-Chlorooctane	*77.6*		*"*	*100*		*77.6*	*70-130*			
Surrogate: o-Terphenyl	*36.8*		*"*	*50.0*		*73.6*	*70-130*			
LCS Dup (P0G1411-BSD1)				Prepared & Analyzed: 07/14/20						
C6-C12	1010	25.0	mg/kg wet	1000		101	75-125	8.22	20	
>C12-C28	1180	25.0	"	1000		118	75-125	11.4	20	
Surrogate: 1-Chlorooctane	*97.6*		*"*	*100*		*97.6*	*70-130*			
Surrogate: o-Terphenyl	*41.2*		*"*	*50.0*		*82.3*	*70-130*			
Calibration Check (P0G1411-CCV1)				Prepared & Analyzed: 07/14/20						
C6-C12	487	25.0	mg/kg wet	500		97.4	85-115			
>C12-C28	519	25.0	"	500		104	85-115			
Surrogate: 1-Chlorooctane	*75.7*		*"*	*100*		*75.7*	*70-130*			
Surrogate: o-Terphenyl	*37.6*		*"*	*50.0*		*75.2*	*70-130*			
Calibration Check (P0G1411-CCV2)				Prepared & Analyzed: 07/14/20						
C6-C12	514	25.0	mg/kg wet	500		103	85-115			
>C12-C28	542	25.0	"	500		108	85-115			
Surrogate: 1-Chlorooctane	*85.9*		*"*	*100*		*85.9*	*70-130*			
Surrogate: o-Terphenyl	*43.5*		*"*	*50.0*		*87.0*	*70-130*			

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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0G1411 - TX 1005										
Calibration Check (P0G1411-CCV3)				Prepared: 07/14/20 Analyzed: 07/15/20						
C6-C12	521	25.0	mg/kg wet	500		104	85-115			
>C12-C28	558	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	*88.6*		*"*	*100*		*88.6*	*70-130*			
Surrogate: o-Terphenyl	*43.4*		*"*	*50.0*		*86.9*	*70-130*			
Matrix Spike (P0G1411-MS1)		**Source: 0G14001-04**		Prepared: 07/14/20 Analyzed: 07/15/20						
C6-C12	1150	25.3	mg/kg dry	1010	15.0	112	75-125			
>C12-C28	1250	25.3	"	1010	36.4	120	75-125			
Surrogate: 1-Chlorooctane	*106*		*"*	*101*		*105*	*70-130*			
Surrogate: o-Terphenyl	*49.9*		*"*	*50.5*		*98.9*	*70-130*			
Matrix Spike Dup (P0G1411-MSD1)		**Source: 0G14001-04**		Prepared: 07/14/20 Analyzed: 07/15/20						
C6-C12	1220	25.3	mg/kg dry	1010	15.0	119	75-125	5.91	20	
>C12-C28	1350	25.3	"	1010	36.4	130	75-125	7.87	20	QM-05
Surrogate: 1-Chlorooctane	*98.7*		*"*	*101*		*97.7*	*70-130*			
Surrogate: o-Terphenyl	*48.3*		*"*	*50.5*		*95.7*	*70-130*			
Batch P0G1412 - TX 1005										
Blank (P0G1412-BLK1)				Prepared: 07/14/20 Analyzed: 07/16/20						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*91.0*		*"*	*100*		*91.0*	*70-130*			
Surrogate: o-Terphenyl	*48.6*		*"*	*50.0*		*97.1*	*70-130*			
LCS (P0G1412-BS1)				Prepared: 07/14/20 Analyzed: 07/16/20						
C6-C12	1050	25.0	mg/kg wet	1000		105	75-125			
>C12-C28	1240	25.0	"	1000		124	75-125			
Surrogate: 1-Chlorooctane	*90.0*		*"*	*100*		*90.0*	*70-130*			
Surrogate: o-Terphenyl	*43.6*		*"*	*50.0*		*87.3*	*70-130*			

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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0G1412 - TX 1005										
LCS Dup (P0G1412-BSD1)				Prepared: 07/14/20 Analyzed: 07/16/20						
C6-C12	1030	25.0	mg/kg wet	1000		103	75-125	1.94	20	
>C12-C28	1220	25.0	"	1000		122	75-125	1.16	20	
Surrogate: 1-Chlorooctane	*103*		*"*	*100*		*103*	*70-130*			
Surrogate: o-Terphenyl	*43.3*		*"*	*50.0*		*86.5*	*70-130*			
Calibration Check (P0G1412-CCV1)				Prepared: 07/14/20 Analyzed: 07/16/20						
C6-C12	556	25.0	mg/kg wet	500		111	85-115			
>C12-C28	563	25.0	"	500		113	85-115			
Surrogate: 1-Chlorooctane	*92.4*		*"*	*100*		*92.4*	*70-130*			
Surrogate: o-Terphenyl	*46.4*		*"*	*50.0*		*92.7*	*70-130*			
Calibration Check (P0G1412-CCV2)				Prepared: 07/14/20 Analyzed: 07/16/20						
C6-C12	545	25.0	mg/kg wet	500		109	85-115			
>C12-C28	563	25.0	"	500		113	85-115			
Surrogate: 1-Chlorooctane	*90.8*		*"*	*100*		*90.8*	*70-130*			
Surrogate: o-Terphenyl	*45.4*		*"*	*50.0*		*90.8*	*70-130*			
Calibration Check (P0G1412-CCV3)				Prepared: 07/14/20 Analyzed: 07/16/20						
C6-C12	483	25.0	mg/kg wet	500		96.7	85-115			
>C12-C28	518	25.0	"	500		104	85-115			
Surrogate: 1-Chlorooctane	*88.5*		*"*	*100*		*88.5*	*70-130*			
Surrogate: o-Terphenyl	*44.8*		*"*	*50.0*		*89.5*	*70-130*			
Matrix Spike (P0G1412-MS1)	**Source: 0G14003-15**			Prepared: 07/14/20 Analyzed: 07/16/20						
C6-C12	1050	25.5	mg/kg dry	1020	20.7	101	75-125			
>C12-C28	1230	25.5	"	1020	18.9	119	75-125			
Surrogate: 1-Chlorooctane	*91.8*		*"*	*102*		*90.0*	*70-130*			
Surrogate: o-Terphenyl	*42.0*		*"*	*51.0*		*82.4*	*70-130*			

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P0G1412 - TX 1005										
Matrix Spike Dup (P0G1412-MSD1)	**Source: 0G14003-15**			Prepared: 07/14/20 Analyzed: 07/16/20						
C6-C12	1010	25.5	mg/kg dry	1020	20.7	97.4	75-125	3.27	20	
>C12-C28	1190	25.5	"	1020	18.9	115	75-125	3.60	20	
Surrogate: 1-Chlorooctane	*95.1*		*"*	*102*		*93.2*	*70-130*			
Surrogate: o-Terphenyl	*39.1*		*"*	*51.0*		*76.7*	*70-130*			

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
ROI	Received on Ice
R3	The RPD exceeded the acceptance limit due to sample matrix effects.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
BULK	Samples received in Bulk soil containers
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 7/22/2020

Brent Barron, Laboratory Director/Technical Director

Larson & Associates, Inc.	Project: Uno Mas	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0128-01	
Midland TX, 79710	Project Manager: Mark Larson	

LOS CK MD №1199

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

DATE: 7/13/20 PAGE 1 OF 2

PO#: LAB WORK ORDER#: 0614001

PROJECT LOCATION OR NAME: UNO MAS

LAI PROJECT #: 20-0128-01 COLLECTOR: RN

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TBLP - METALS (RCRA)	TCLP - PEST ☐ HERB ☐	TCLP VOC ☐	TOTAL METALS (RCRA)	LEAD - TOTAL ☐	Semi-VOC ☐	OTHER LIST ☐	RCI ☐ TOX ☐	D.W. 200.8 ☐ TCLP ☐	TDS ☐ TSS ☐	FLASHPOINT ☐	pH ☐ HEXAVALENT CHROMIUM ☐	% MOISTURE ☐ CYANIDE ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☒ ANIONS ☐	ALKALINITY ☐	FIELD NOTES
SP-1-0.5'	1	7/13/20	1130	S	1				X		X			X	X	X																					
SP-1-1'	2		1135																																X		
SP-2-0.5'	3		1140																																		
SP-3-0.5'	4		1145																																		
SP-4-0.5'	5		1150																																		
SP-4-1'	6		1155																																		
SP-5-0.5'	7		1200																																		
SP-6-0.5'	8		1205																																		
SP-6-1'	9		1210																																		
SP-7-0.5'	10		1215																																		
SP-7-1'	11		1220																																		
SP-8-0.5'	12		1225																																		
SP-9-0.5'	13		1230																																		
SP-10-0.5'	14		1235																																		
SP-10-1'	15		1240																																		
TOTAL	15																																				

RELINQUISHED BY:(Signature): Trent Dalton — DATE/TIME: 7/14/20 8:48 — RECEIVED BY: (Signature): Alyssa Bledsoe

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

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

LABORATORY: PBEL

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

LABORATORY USE ONLY:
RECEIVING TEMP: -1.2 -.2 — THERM#: CF+1 C2
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

№ 1200

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants

507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

DATE: 7/13/20 PAGE 2 OF 2

PO#:

LAB WORK ORDER#: OG14001

PROJECT LOCATION OR NAME: Uno Mas

LAI PROJECT #: 20-0128-01 COLLECTOR: KN

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

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

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4/NaOH	ICE	UNPRESSERVED	BTEX	TRPH	GASOLINE	DIESEL	OIL	VOC	SVOC	8081	8082	TBLP	TCLP	TOTAL METALS	LEAD	RCI	TDS	pH	EXPLOSIVES	CHLORIDE	FIELD NOTES
SP-11- 0.5'	16	7/13/20	1245	S	1				X		X		X	X	X													X	
SP-11- 1'	17	↓	1250	↓	↓				↓		↓		↓	↓	↓													↓	
SP-12- 0.5'	18	↓	1255	↓	↓				↓		↓		↓	↓	↓													↓	
SP-13- 0.5'	19	↓	1300	↓	↓				↓		↓		↓	↓	↓													↓	
SP-13- 1'	20	↓	1305	↓	↓				↓		↓		↓	↓	↓													↓	

TOTAL 5

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	7/14/20 8:40	Teresa Bledsoe

LABORATORY: PBEL

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

LABORATORY USE ONLY:
RECEIVING TEMP: -1.2 -.2 THERM#: CF+1 L2
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

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Certificate of Analysis Summary 669565

Larson and Associates, Inc., Midland, TX

Project Name: VNO Mas

Project Id: 20-0128-01
Contact: Mark Larson
Project Location:

Date Received in Lab: Mon 08.10.2020 09:00
Report Date: 08.17.2020 09:19
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	669565-001		669565-002		669565-003		669565-004		669565-005		669565-006	
	Field Id:	SP-7 1'		SP-7 3'		SP-8 1'		SP-8 3'		SP-9 1'		SP-9 3'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	08.06.2020 13:36		08.06.2020 13:38		08.06.2020 11:03		08.06.2020 11:05		08.06.2020 10:53		08.06.2020 10:55	
BTEX by EPA 8021B	***Extracted:***	08.11.2020 16:00		08.11.2020 16:00		08.11.2020 16:00		08.11.2020 16:00		08.11.2020 16:00		08.11.2020 16:00	
	Analyzed:	08.12.2020 01:00		08.12.2020 01:20		08.12.2020 01:41		08.12.2020 02:01		08.12.2020 03:23		08.12.2020 03:44	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00198	0.00198	<0.00200	0.00200	0.0409	0.0200	0.0536	0.0199	<0.00198	0.00198	<0.00198	0.00198
Toluene		<0.00198	0.00198	<0.00200	0.00200	0.0463	0.0200	0.0279	0.0199	<0.00198	0.00198	<0.00198	0.00198
Ethylbenzene		<0.00198	0.00198	<0.00200	0.00200	0.106	0.0200	1.10	0.0199	<0.00198	0.00198	<0.00198	0.00198
m,p-Xylenes		<0.00396	0.00396	<0.00401	0.00401	<0.0399	0.0399	0.927	0.0398	<0.00397	0.00397	<0.00396	0.00396
o-Xylene		<0.00198	0.00198	<0.00200	0.00200	0.0411	0.0200	0.770	0.0199	<0.00198	0.00198	<0.00198	0.00198
Total Xylenes		<0.00198	0.00198	<0.00200	0.00200	0.0411	0.0200	1.70	0.0199	<0.00198	0.00198	<0.00198	0.00198
Total BTEX		<0.00198	0.00198	<0.00200	0.00200	0.234	0.0200	2.88	0.0199	<0.00198	0.00198	<0.00198	0.00198
Chloride by EPA 300	***Extracted:***	08.11.2020 10:50		08.11.2020 10:50		08.11.2020 10:50		08.11.2020 10:50		08.11.2020 10:50		08.11.2020 10:50	
	Analyzed:	08.11.2020 17:14		08.11.2020 17:20		08.11.2020 17:26		08.12.2020 08:25		08.11.2020 17:39		08.11.2020 17:58	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		146	49.7	421	25.2	56.2	49.8	37.8	4.95	78.8	25.3	41.5	4.98
TPH by SW8015 Mod	***Extracted:***	08.10.2020 11:00		08.10.2020 11:00		08.10.2020 11:00		08.10.2020 11:00		08.10.2020 11:00		08.10.2020 11:00	
	Analyzed:	08.10.2020 14:33		08.10.2020 13:30		08.10.2020 14:54		08.10.2020 15:15		08.10.2020 15:36		08.11.2020 07:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<249	249	<49.9	49.9	<50.0	50.0	<50.0	50.0
Diesel Range Organics (DRO)		1100	50.0	<50.0	50.0	10800	249	394	49.9	60.1	50.0	91.6	50.0
Motor Oil Range Hydrocarbons (MRO)		271	50.0	<50.0	50.0	1950	249	64.0	49.9	<50.0	50.0	<50.0	50.0
Total TPH		1370	50.0	<50.0	50.0	12800	249	458	49.9	60.1	50.0	91.6	50.0

BRL - Below Reporting Limit

Holly Taylor

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Certificate of Analysis Summary 669565

Larson and Associates, Inc., Midland, TX

Project Name: VNO Mas

Project Id: 20-0128-01
Contact: Mark Larson
Project Location:

Date Received in Lab: Mon 08.10.2020 09:00
Report Date: 08.17.2020 09:19
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	669565-007		669565-008		669565-009		669565-010		669565-011		669565-012	
	Field Id:	SP-12 1'		SP-12 3'		SP-13 1.5'		SP-6 1'		SP-6 3'		SP-5 1'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	08.06.2020 10:30		08.06.2020 10:32		08.06.2020 11:15		08.06.2020 14:02		08.06.2020 14:04		08.06.2020 14:12	
BTEX by EPA 8021B	***Extracted:***	08.11.2020 16:00		08.11.2020 16:00		08.11.2020 16:00		08.11.2020 16:00		08.11.2020 16:00		08.11.2020 16:00	
	Analyzed:	08.12.2020 04:04		08.12.2020 04:25		08.12.2020 04:45		08.12.2020 05:05		08.12.2020 05:26		08.12.2020 05:46	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		0.0400	0.0200	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200
Toluene		0.0331	0.0200	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		0.0237	0.0200	0.0726	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.0401	0.0401	0.0102	0.00399	<0.00398	0.00398	<0.00397	0.00397	<0.00398	0.00398	<0.00399	0.00399
o-Xylene		0.0497	0.0200	0.0572	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		0.0497	0.0200	0.0674	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		0.147	0.0200	0.140	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	08.11.2020 10:50		08.11.2020 10:50		08.11.2020 10:50		08.11.2020 10:50		08.11.2020 10:50		08.11.2020 10:50	
	Analyzed:	08.11.2020 18:04		08.11.2020 18:23		08.11.2020 18:30		08.11.2020 18:36		08.11.2020 18:42		08.11.2020 18:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		59.7	49.5	110	25.2	35.7	4.99	6090	100	604	5.00	88.6	50.0
TPH by SW8015 Mod	***Extracted:***	08.10.2020 11:00		08.10.2020 11:00		08.10.2020 11:00		08.10.2020 11:00		08.10.2020 11:00		08.10.2020 11:00	
	Analyzed:	08.10.2020 16:20		08.10.2020 16:42		08.10.2020 17:03		08.10.2020 17:25		08.11.2020 07:53		08.10.2020 18:30	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<249	249	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)		4820	249	146	49.8	79.9	50.0	556	50.0	<49.9	49.9	694	50.0
Motor Oil Range Hydrocarbons (MRO)		959	249	<49.8	49.8	<50.0	50.0	119	50.0	<49.9	49.9	200	50.0
Total TPH		5780	249	146	49.8	79.9	50.0	675	50.0	<49.9	49.9	894	50.0

BRL - Below Reporting Limit

Holly Taylor

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Certificate of Analysis Summary 669565

Larson and Associates, Inc., Midland, TX

Project Name: VNO Mas

Project Id: 20-0128-01
Contact: Mark Larson
Project Location:

Date Received in Lab: Mon 08.10.2020 09:00
Report Date: 08.17.2020 09:19
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	669565-013		669565-014		669565-015		669565-016		669565-017		669565-018	
	Field Id:	SP-5 3'		SP-5 5'		SP-5 7'		SP-11 1'		SP-11 3'		SP-10 1'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	08.06.2020 14:14		08.06.2020 14:16		08.06.2020 14:25		08.07.2020 09:19		08.07.2020 09:20		08.07.2020 09:46	
BTEX by EPA 8021B	***Extracted:***	08.11.2020 16:00		08.11.2020 16:00		08.12.2020 09:00		08.12.2020 09:00		08.12.2020 09:00		08.12.2020 09:00	
	Analyzed:	08.12.2020 06:07		08.12.2020 06:27		08.12.2020 11:47		08.12.2020 12:08		08.12.2020 12:28		08.12.2020 12:48	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.0198	0.0198
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	0.0452	0.0198
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	0.0302	0.0198
m,p-Xylenes		<0.00402	0.00402	<0.00401	0.00401	<0.00403	0.00403	<0.00398	0.00398	<0.00398	0.00398	<0.0397	0.0397
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	0.0554	0.0198
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	0.0554	0.0198
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	0.131	0.0198
Chloride by EPA 300	***Extracted:***	08.11.2020 10:50		08.11.2020 10:50		08.11.2020 14:10		08.11.2020 14:10		08.11.2020 14:10		08.11.2020 14:10	
	Analyzed:	08.11.2020 18:55		08.11.2020 19:01		08.11.2020 15:28		08.11.2020 15:48		08.11.2020 15:53		08.11.2020 15:59	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		44.2	25.2	72.2	4.95	223	5.00	882	49.8	651	24.8	144	25.2
TPH by SW8015 Mod	***Extracted:***	08.10.2020 11:00		08.10.2020 11:00		08.10.2020 11:00		08.10.2020 11:00		08.10.2020 11:00		08.10.2020 11:00	
	Analyzed:	08.10.2020 18:51		08.10.2020 19:12		08.10.2020 19:33		08.10.2020 19:54		08.10.2020 20:15		08.10.2020 20:35	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0
Diesel Range Organics (DRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0	97.2	49.9	<49.8	49.8	1580	50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	264	50.0
Total TPH		<49.9	49.9	<50.0	50.0	<50.0	50.0	97.2	49.9	<49.8	49.8	1840	50.0

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor

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Certificate of Analysis Summary 669565

Larson and Associates, Inc., Midland, TX

Project Name: VNO Mas

Project Id: 20-0128-01
Contact: Mark Larson
Project Location:

Date Received in Lab: Mon 08.10.2020 09:00
Report Date: 08.17.2020 09:19
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	669565-019		669565-020		669565-021		669565-022					
	Field Id:	SP-10 3'		SP-10 5'		SP-4 1'		SP-4 3'					
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	08.07.2020 09:47		08.07.2020 09:48		08.07.2020 09:55		08.07.2020 09:56					
BTEX by EPA 8021B	***Extracted:***	08.12.2020 09:00		08.12.2020 09:00		08.12.2020 09:00		08.12.2020 09:00					
	Analyzed:	08.12.2020 13:09		08.12.2020 13:29		08.12.2020 13:50		08.12.2020 14:10					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200				
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200				
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200				
m,p-Xylenes		<0.00402	0.00402	<0.00401	0.00401	<0.00398	0.00398	<0.00400	0.00400				
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200				
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200				
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	08.11.2020 14:10		08.11.2020 14:10		08.11.2020 14:10		08.11.2020 14:10					
	Analyzed:	08.11.2020 16:04		08.11.2020 16:20		08.11.2020 16:25		08.11.2020 16:30					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		312	5.00	448	24.8	840	50.0	660	25.3				
TPH by SW8015 Mod	***Extracted:***	08.10.2020 11:00		08.10.2020 11:00		08.11.2020 12:00		08.11.2020 12:00					
	Analyzed:	08.10.2020 20:56		08.10.2020 21:17		08.11.2020 19:04		08.11.2020 19:23					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0				
Diesel Range Organics (DRO)		96.6	50.0	1460	49.9	179	49.9	<50.0	50.0				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	262	49.9	<49.9	49.9	<50.0	50.0				
Total TPH		96.6	50.0	1720	49.9	179	49.9	<50.0	50.0				

BRL - Below Reporting Limit

Holly Taylor

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Analytical Report 669565

for

Larson and Associates, Inc.

Project Manager: Mark Larson

VNO Mas

20-0128-01

08.17.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-37), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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08.17.2020

Project Manager: **Mark Larson**
Larson and Associates, Inc.
P. O. Box 50685
Midland, TX 79710

Reference: Eurofins Xenco, LLC Report No(s): **669565**
VNO Mas
Project Address:

Mark Larson:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 669565. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 669565 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Holly Taylor

Holly Taylor
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-7 1'	S	08.06.2020 13:36		669565-001
SP-7 3'	S	08.06.2020 13:38		669565-002
SP-8 1'	S	08.06.2020 11:03		669565-003
SP-8 3'	S	08.06.2020 11:05		669565-004
SP-9 1'	S	08.06.2020 10:53		669565-005
SP-9 3'	S	08.06.2020 10:55		669565-006
SP-12 1'	S	08.06.2020 10:30		669565-007
SP-12 3'	S	08.06.2020 10:32		669565-008
SP-13 1.5'	S	08.06.2020 11:15		669565-009
SP-6 1'	S	08.06.2020 14:02		669565-010
SP-6 3'	S	08.06.2020 14:04		669565-011
SP-5 1'	S	08.06.2020 14:12		669565-012
SP-5 3'	S	08.06.2020 14:14		669565-013
SP-5 5'	S	08.06.2020 14:16		669565-014
SP-5 7'	S	08.06.2020 14:25		669565-015
SP-11 1'	S	08.07.2020 09:19		669565-016
SP-11 3'	S	08.07.2020 09:20		669565-017
SP-10 1'	S	08.07.2020 09:46		669565-018
SP-10 3'	S	08.07.2020 09:47		669565-019
SP-10 5'	S	08.07.2020 09:48		669565-020
SP-4 1'	S	08.07.2020 09:55		669565-021
SP-4 3'	S	08.07.2020 09:56		669565-022

CASE NARRATIVE

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Client Name: Larson and Associates, Inc.

Project Name: VNO Mas

Project ID: *20-0128-01*
Work Order Number(s): *669565*

Report Date: *08.17.2020*
Date Received: *08.10.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3134149 TPH by SW8015 Mod

Surrogate 1-Chlorooctane recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 669565-012.
Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 669565-020,669565-018.

Batch: LBA-3134228 Chloride by EPA 300

E300
Batch 3134228,
Lab Sample ID 669565-005 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 669565-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3134276 BTEX by EPA 8021B

Surrogate 1,4-Difluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 669565-003,669565-004.
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 669565-008,669565-004,669565-007,669565-003.

Batch: LBA-3134386 BTEX by EPA 8021B

Lab Sample ID 669565-019 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). m,p-Xylenes recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 669565-015, -016, -017, -018, -019, -020, -021, -022.
The Laboratory Control Sample for m,p-Xylenes is within laboratory Control Limits, therefore the data was accepted.

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CASE NARRATIVE

Client Name: Larson and Associates, Inc.

Project Name: VNO Mas

Project ID:	*20-0128-01*	Report Date:	*08.17.2020*
Work Order Number(s):	*669565*	Date Received:	*08.10.2020*

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-7 1'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-001 Date Collected: 08.06.2020 13:36

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 10:50 Basis: Wet Weight

Seq Number: 3134228

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**146**	49.7	mg/kg	08.11.2020 17:14		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 14:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1100**	50.0	mg/kg	08.10.2020 14:33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**271**	50.0	mg/kg	08.10.2020 14:33		1
Total TPH	PHC635	**1370**	50.0	mg/kg	08.10.2020 14:33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	08.10.2020 14:33	
o-Terphenyl	84-15-1	130	%	70-130	08.10.2020 14:33	

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-7 1'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-001	Date Collected:	08.06.2020 13:36		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.11.2020 16:00	Basis:	Wet Weight
Seq Number:	3134276				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.12.2020 01:00	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.12.2020 01:00	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.12.2020 01:00	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.12.2020 01:00	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.12.2020 01:00	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.12.2020 01:00	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.12.2020 01:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.12.2020 01:00	
1,4-Difluorobenzene	540-36-3	115	%	70-130	08.12.2020 01:00	

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-7 3'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-002 Date Collected: 08.06.2020 13:38

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 10:50 Basis: Wet Weight

Seq Number: 3134228

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**421**	25.2	mg/kg	08.11.2020 17:20		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 13:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.10.2020 13:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.10.2020 13:30	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.10.2020 13:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	08.10.2020 13:30	
o-Terphenyl	84-15-1	113	%	70-130	08.10.2020 13:30	

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-7 3'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-002	Date Collected:	08.06.2020 13:38		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.11.2020 16:00	Basis:	Wet Weight
Seq Number:	3134276				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.12.2020 01:20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.12.2020 01:20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.12.2020 01:20	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.12.2020 01:20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.12.2020 01:20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.12.2020 01:20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.12.2020 01:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	112	%	70-130	08.12.2020 01:20	
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.12.2020 01:20	

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-8 1'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-003 Date Collected: 08.06.2020 11:03

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 10:50 Basis: Wet Weight

Seq Number: 3134228

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**56.2**	49.8	mg/kg	08.11.2020 17:26		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<249	249	mg/kg	08.10.2020 14:54	U	5
Diesel Range Organics (DRO)	C10C28DRO	**10800**	249	mg/kg	08.10.2020 14:54		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1950**	249	mg/kg	08.10.2020 14:54		5
Total TPH	PHC635	**12800**	249	mg/kg	08.10.2020 14:54		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	08.10.2020 14:54	
o-Terphenyl	84-15-1	116	%	70-130	08.10.2020 14:54	

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-8 1'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-003	Date Collected:	08.06.2020 11:03		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.11.2020 16:00	Basis:	Wet Weight
Seq Number:	3134276				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0409**	0.0200	mg/kg	08.12.2020 01:41		10
Toluene	108-88-3	**0.0463**	0.0200	mg/kg	08.12.2020 01:41		10
Ethylbenzene	100-41-4	**0.106**	0.0200	mg/kg	08.12.2020 01:41		10
m,p-Xylenes	179601-23-1	<0.0399	0.0399	mg/kg	08.12.2020 01:41	U	10
o-Xylene	95-47-6	**0.0411**	0.0200	mg/kg	08.12.2020 01:41		10
Total Xylenes	1330-20-7	**0.0411**	0.0200	mg/kg	08.12.2020 01:41		10
Total BTEX		**0.234**	0.0200	mg/kg	08.12.2020 01:41		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	179	%	70-130	08.12.2020 01:41	**
1,4-Difluorobenzene	540-36-3	132	%	70-130	08.12.2020 01:41	**

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-8 3'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-004 Date Collected: 08.06.2020 11:05

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 10:50 Basis: Wet Weight

Seq Number: 3134228

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**37.8**	4.95	mg/kg	08.12.2020 08:25		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.10.2020 15:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	**394**	49.9	mg/kg	08.10.2020 15:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**64.0**	49.9	mg/kg	08.10.2020 15:15		1
Total TPH	PHC635	**458**	49.9	mg/kg	08.10.2020 15:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	08.10.2020 15:15	
o-Terphenyl	84-15-1	109	%	70-130	08.10.2020 15:15	

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-8 3'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-004	Date Collected:	08.06.2020 11:05		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.11.2020 16:00	Basis:	Wet Weight
Seq Number:	3134276				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0536**	0.0199	mg/kg	08.12.2020 02:01		10
Toluene	108-88-3	**0.0279**	0.0199	mg/kg	08.12.2020 02:01		10
Ethylbenzene	100-41-4	**1.10**	0.0199	mg/kg	08.12.2020 02:01		10
m,p-Xylenes	179601-23-1	**0.927**	0.0398	mg/kg	08.12.2020 02:01		10
o-Xylene	95-47-6	**0.770**	0.0199	mg/kg	08.12.2020 02:01		10
Total Xylenes	1330-20-7	**1.70**	0.0199	mg/kg	08.12.2020 02:01		10
Total BTEX		**2.88**	0.0199	mg/kg	08.12.2020 02:01		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	194	%	70-130	08.12.2020 02:01	**
1,4-Difluorobenzene	540-36-3	133	%	70-130	08.12.2020 02:01	**

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-9 1'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-005 Date Collected: 08.06.2020 10:53

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 10:50 Basis: Wet Weight

Seq Number: 3134228

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**78.8**	25.3	mg/kg	08.11.2020 17:39		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 15:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	**60.1**	50.0	mg/kg	08.10.2020 15:36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.10.2020 15:36	U	1
Total TPH	PHC635	**60.1**	50.0	mg/kg	08.10.2020 15:36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	08.10.2020 15:36	
o-Terphenyl	84-15-1	103	%	70-130	08.10.2020 15:36	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-9 1'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-005	Date Collected:	08.06.2020 10:53		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.11.2020 16:00	Basis:	Wet Weight
Seq Number:	3134276				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.12.2020 03:23	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.12.2020 03:23	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.12.2020 03:23	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.12.2020 03:23	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.12.2020 03:23	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.12.2020 03:23	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.12.2020 03:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	08.12.2020 03:23	
4-Bromofluorobenzene	460-00-4	92	%	70-130	08.12.2020 03:23	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-9 3'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-006 Date Collected: 08.06.2020 10:55

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 10:50 Basis: Wet Weight

Seq Number: 3134228

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**41.5**	4.98	mg/kg	08.11.2020 17:58		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.11.2020 07:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	**91.6**	50.0	mg/kg	08.11.2020 07:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.11.2020 07:15	U	1
Total TPH	PHC635	**91.6**	50.0	mg/kg	08.11.2020 07:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-130	08.11.2020 07:15	
o-Terphenyl	84-15-1	119	%	70-130	08.11.2020 07:15	

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VNO Mas

Sample Id:	**SP-9 3'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-006	Date Collected:	08.06.2020 10:55		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.11.2020 16:00	Basis:	Wet Weight
Seq Number:	3134276				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.12.2020 03:44	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.12.2020 03:44	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.12.2020 03:44	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.12.2020 03:44	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.12.2020 03:44	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.12.2020 03:44	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.12.2020 03:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	08.12.2020 03:44	
1,4-Difluorobenzene	540-36-3	113	%	70-130	08.12.2020 03:44	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-12 1'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-007 Date Collected: 08.06.2020 10:30

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 10:50 Basis: Wet Weight

Seq Number: 3134228

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**59.7**	49.5	mg/kg	08.11.2020 18:04		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<249	249	mg/kg	08.10.2020 16:20	U	5
Diesel Range Organics (DRO)	C10C28DRO	**4820**	249	mg/kg	08.10.2020 16:20		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**959**	249	mg/kg	08.10.2020 16:20		5
Total TPH	PHC635	**5780**	249	mg/kg	08.10.2020 16:20		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-130	08.10.2020 16:20	
o-Terphenyl	84-15-1	98	%	70-130	08.10.2020 16:20	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-12 1'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-007	Date Collected:	08.06.2020 10:30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.11.2020 16:00	Basis:	Wet Weight
Seq Number:	3134276				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0400**	0.0200	mg/kg	08.12.2020 04:04		10
Toluene	108-88-3	**0.0331**	0.0200	mg/kg	08.12.2020 04:04		10
Ethylbenzene	100-41-4	**0.0237**	0.0200	mg/kg	08.12.2020 04:04		10
m,p-Xylenes	179601-23-1	<0.0401	0.0401	mg/kg	08.12.2020 04:04	U	10
o-Xylene	95-47-6	**0.0497**	0.0200	mg/kg	08.12.2020 04:04		10
Total Xylenes	1330-20-7	**0.0497**	0.0200	mg/kg	08.12.2020 04:04		10
Total BTEX		**0.147**	0.0200	mg/kg	08.12.2020 04:04		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	174	%	70-130	08.12.2020 04:04	**
1,4-Difluorobenzene	540-36-3	124	%	70-130	08.12.2020 04:04	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-12 3'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-008	Date Collected:	08.06.2020 10:32		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.11.2020 10:50	Basis:	Wet Weight
Seq Number:	3134228				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**110**	25.2	mg/kg	08.11.2020 18:23		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.10.2020 11:00	Basis:	Wet Weight
Seq Number:	3134149				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.10.2020 16:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	**146**	49.8	mg/kg	08.10.2020 16:42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.10.2020 16:42	U	1
Total TPH	PHC635	**146**	49.8	mg/kg	08.10.2020 16:42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-130	08.10.2020 16:42	
o-Terphenyl	84-15-1	121	%	70-130	08.10.2020 16:42	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-12 3'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-008	Date Collected:	08.06.2020 10:32		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.11.2020 16:00	Basis:	Wet Weight
Seq Number:	3134276				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.12.2020 04:25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.12.2020 04:25	U	1
Ethylbenzene	100-41-4	**0.0726**	0.00200	mg/kg	08.12.2020 04:25		1
m,p-Xylenes	179601-23-1	**0.0102**	0.00399	mg/kg	08.12.2020 04:25		1
o-Xylene	95-47-6	**0.0572**	0.00200	mg/kg	08.12.2020 04:25		1
Total Xylenes	1330-20-7	**0.0674**	0.00200	mg/kg	08.12.2020 04:25		1
Total BTEX		**0.140**	0.00200	mg/kg	08.12.2020 04:25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	112	%	70-130	08.12.2020 04:25	
4-Bromofluorobenzene	460-00-4	150	%	70-130	08.12.2020 04:25	**

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-13 1.5'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-009 Date Collected: 08.06.2020 11:15

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 10:50 Basis: Wet Weight

Seq Number: 3134228

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**35.7**	4.99	mg/kg	08.11.2020 18:30		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 17:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	**79.9**	50.0	mg/kg	08.10.2020 17:03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.10.2020 17:03	U	1
Total TPH	PHC635	**79.9**	50.0	mg/kg	08.10.2020 17:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	08.10.2020 17:03	
o-Terphenyl	84-15-1	105	%	70-130	08.10.2020 17:03	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-13 1.5'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-009	Date Collected:	08.06.2020 11:15		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.11.2020 16:00	Basis:	Wet Weight
Seq Number:	3134276				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.12.2020 04:45	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.12.2020 04:45	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.12.2020 04:45	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.12.2020 04:45	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.12.2020 04:45	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.12.2020 04:45	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.12.2020 04:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	08.12.2020 04:45	
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.12.2020 04:45	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-6 1'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-010 Date Collected: 08.06.2020 14:02

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 10:50 Basis: Wet Weight

Seq Number: 3134228

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6090**	100	mg/kg	08.11.2020 18:36		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 17:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	**556**	50.0	mg/kg	08.10.2020 17:25		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**119**	50.0	mg/kg	08.10.2020 17:25		1
Total TPH	PHC635	**675**	50.0	mg/kg	08.10.2020 17:25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	08.10.2020 17:25	
o-Terphenyl	84-15-1	117	%	70-130	08.10.2020 17:25	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-6 1'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-010	Date Collected:	08.06.2020 14:02		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.11.2020 16:00	Basis:	Wet Weight
Seq Number:	3134276				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.12.2020 05:05	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.12.2020 05:05	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.12.2020 05:05	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.12.2020 05:05	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.12.2020 05:05	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.12.2020 05:05	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.12.2020 05:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	112	%	70-130	08.12.2020 05:05	
4-Bromofluorobenzene	460-00-4	109	%	70-130	08.12.2020 05:05	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-6 3'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-011 Date Collected: 08.06.2020 14:04

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 10:50 Basis: Wet Weight

Seq Number: 3134228

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**604**	5.00	mg/kg	08.11.2020 18:42		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.11.2020 07:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.11.2020 07:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.11.2020 07:53	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.11.2020 07:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-130	08.11.2020 07:53	
o-Terphenyl	84-15-1	116	%	70-130	08.11.2020 07:53	

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VNO Mas

Sample Id:	**SP-6 3'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-011	Date Collected:	08.06.2020 14:04		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.11.2020 16:00	Basis:	Wet Weight
Seq Number:	3134276				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.12.2020 05:26	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.12.2020 05:26	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.12.2020 05:26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.12.2020 05:26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.12.2020 05:26	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.12.2020 05:26	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.12.2020 05:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	08.12.2020 05:26	
1,4-Difluorobenzene	540-36-3	111	%	70-130	08.12.2020 05:26	

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-5 1'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-012 Date Collected: 08.06.2020 14:12

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 10:50 Basis: Wet Weight

Seq Number: 3134228

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**88.6**	50.0	mg/kg	08.11.2020 18:49		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 18:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	**694**	50.0	mg/kg	08.10.2020 18:30		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**200**	50.0	mg/kg	08.10.2020 18:30		1
Total TPH	PHC635	**894**	50.0	mg/kg	08.10.2020 18:30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	58	%	70-130	08.10.2020 18:30	**
o-Terphenyl	84-15-1	80	%	70-130	08.10.2020 18:30	

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-5 1'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-012	Date Collected:	08.06.2020 14:12		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.11.2020 16:00	Basis:	Wet Weight
Seq Number:	3134276				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.12.2020 05:46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.12.2020 05:46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.12.2020 05:46	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.12.2020 05:46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.12.2020 05:46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.12.2020 05:46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.12.2020 05:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.12.2020 05:46	
1,4-Difluorobenzene	540-36-3	116	%	70-130	08.12.2020 05:46	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-5 3'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-013 Date Collected: 08.06.2020 14:14

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 10:50 Basis: Wet Weight

Seq Number: 3134228

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**44.2**	25.2	mg/kg	08.11.2020 18:55		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.10.2020 18:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.10.2020 18:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.10.2020 18:51	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.10.2020 18:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	08.10.2020 18:51	
o-Terphenyl	84-15-1	82	%	70-130	08.10.2020 18:51	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-5 3'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-013	Date Collected:	08.06.2020 14:14		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.11.2020 16:00	Basis:	Wet Weight
Seq Number:	3134276				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.12.2020 06:07	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.12.2020 06:07	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.12.2020 06:07	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.12.2020 06:07	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.12.2020 06:07	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.12.2020 06:07	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.12.2020 06:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	08.12.2020 06:07	
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.12.2020 06:07	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-5 5'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-014 Date Collected: 08.06.2020 14:16

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 10:50 Basis: Wet Weight

Seq Number: 3134228

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**72.2**	4.95	mg/kg	08.11.2020 19:01		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 19:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.10.2020 19:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.10.2020 19:12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.10.2020 19:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	08.10.2020 19:12	
o-Terphenyl	84-15-1	105	%	70-130	08.10.2020 19:12	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-5 5'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-014	Date Collected:	08.06.2020 14:16		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.11.2020 16:00	Basis:	Wet Weight
Seq Number:	3134276				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.12.2020 06:27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.12.2020 06:27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.12.2020 06:27	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.12.2020 06:27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.12.2020 06:27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.12.2020 06:27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.12.2020 06:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	08.12.2020 06:27	
4-Bromofluorobenzene	460-00-4	109	%	70-130	08.12.2020 06:27	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-5 7'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-015 Date Collected: 08.06.2020 14:25

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 14:10 Basis: Wet Weight

Seq Number: 3134218

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**223**	5.00	mg/kg	08.11.2020 15:28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 19:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.10.2020 19:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.10.2020 19:33	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.10.2020 19:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-130	08.10.2020 19:33	
o-Terphenyl	84-15-1	108	%	70-130	08.10.2020 19:33	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-5 7'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-015	Date Collected:	08.06.2020 14:25		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.12.2020 09:00	Basis:	Wet Weight
Seq Number:	3134386				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.12.2020 11:47	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.12.2020 11:47	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.12.2020 11:47	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.12.2020 11:47	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.12.2020 11:47	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.12.2020 11:47	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.12.2020 11:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	08.12.2020 11:47	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.12.2020 11:47	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-11 1'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-016 Date Collected: 08.07.2020 09:19

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 14:10 Basis: Wet Weight

Seq Number: 3134218

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**882**	49.8	mg/kg	08.11.2020 15:48		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.10.2020 19:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	**97.2**	49.9	mg/kg	08.10.2020 19:54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.10.2020 19:54	U	1
Total TPH	PHC635	**97.2**	49.9	mg/kg	08.10.2020 19:54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	08.10.2020 19:54	
o-Terphenyl	84-15-1	100	%	70-130	08.10.2020 19:54	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-11 1'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-016	Date Collected:	08.07.2020 09:19		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.12.2020 09:00	Basis:	Wet Weight
Seq Number:	3134386				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.12.2020 12:08	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.12.2020 12:08	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.12.2020 12:08	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.12.2020 12:08	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.12.2020 12:08	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.12.2020 12:08	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.12.2020 12:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.12.2020 12:08	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.12.2020 12:08	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-11 3'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-017 Date Collected: 08.07.2020 09:20

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 14:10 Basis: Wet Weight

Seq Number: 3134218

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**651**	24.8	mg/kg	08.11.2020 15:53		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.10.2020 20:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.10.2020 20:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.10.2020 20:15	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.10.2020 20:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	08.10.2020 20:15	
o-Terphenyl	84-15-1	105	%	70-130	08.10.2020 20:15	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-11 3'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-017	Date Collected:	08.07.2020 09:20		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.12.2020 09:00	Basis:	Wet Weight
Seq Number:	3134386				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.12.2020 12:28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.12.2020 12:28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.12.2020 12:28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.12.2020 12:28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.12.2020 12:28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.12.2020 12:28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.12.2020 12:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.12.2020 12:28	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.12.2020 12:28	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-10 1'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-018 Date Collected: 08.07.2020 09:46

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 14:10 Basis: Wet Weight

Seq Number: 3134218

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**144**	25.2	mg/kg	08.11.2020 15:59		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 20:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1580**	50.0	mg/kg	08.10.2020 20:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**264**	50.0	mg/kg	08.10.2020 20:35		1
Total TPH	PHC635	**1840**	50.0	mg/kg	08.10.2020 20:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	08.10.2020 20:35	
o-Terphenyl	84-15-1	145	%	70-130	08.10.2020 20:35	**

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-10 1'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-018	Date Collected:	08.07.2020 09:46		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.12.2020 09:00	Basis:	Wet Weight
Seq Number:	3134386				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0198	0.0198	mg/kg	08.12.2020 12:48	U	10
Toluene	108-88-3	**0.0452**	0.0198	mg/kg	08.12.2020 12:48		10
Ethylbenzene	100-41-4	**0.0302**	0.0198	mg/kg	08.12.2020 12:48		10
m,p-Xylenes	179601-23-1	<0.0397	0.0397	mg/kg	08.12.2020 12:48	U	10
o-Xylene	95-47-6	**0.0554**	0.0198	mg/kg	08.12.2020 12:48		10
Total Xylenes	1330-20-7	**0.0554**	0.0198	mg/kg	08.12.2020 12:48		10
Total BTEX		**0.131**	0.0198	mg/kg	08.12.2020 12:48		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	08.12.2020 12:48	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.12.2020 12:48	

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Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-10 3'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-019 Date Collected: 08.07.2020 09:47

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 14:10 Basis: Wet Weight

Seq Number: 3134218

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**312**	5.00	mg/kg	08.11.2020 16:04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 20:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	**96.6**	50.0	mg/kg	08.10.2020 20:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.10.2020 20:56	U	1
Total TPH	PHC635	**96.6**	50.0	mg/kg	08.10.2020 20:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	08.10.2020 20:56	
o-Terphenyl	84-15-1	105	%	70-130	08.10.2020 20:56	

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-10 3'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-019	Date Collected:	08.07.2020 09:47		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.12.2020 09:00	Basis:	Wet Weight
Seq Number:	3134386				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.12.2020 13:09	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.12.2020 13:09	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.12.2020 13:09	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.12.2020 13:09	UX	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.12.2020 13:09	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.12.2020 13:09	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.12.2020 13:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.12.2020 13:09	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.12.2020 13:09	

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-10 5'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-020 Date Collected: 08.07.2020 09:48

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 14:10 Basis: Wet Weight

Seq Number: 3134218

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**448**	24.8	mg/kg	08.11.2020 16:20		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.10.2020 11:00 Basis: Wet Weight

Seq Number: 3134149

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.10.2020 21:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1460**	49.9	mg/kg	08.10.2020 21:17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**262**	49.9	mg/kg	08.10.2020 21:17		1
Total TPH	PHC635	**1720**	49.9	mg/kg	08.10.2020 21:17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	08.10.2020 21:17	
o-Terphenyl	84-15-1	141	%	70-130	08.10.2020 21:17	**

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-10 5'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-020	Date Collected:	08.07.2020 09:48		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.12.2020 09:00	Basis:	Wet Weight
Seq Number:	3134386				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.12.2020 13:29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.12.2020 13:29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.12.2020 13:29	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.12.2020 13:29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.12.2020 13:29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.12.2020 13:29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.12.2020 13:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	08.12.2020 13:29	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.12.2020 13:29	

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-4 1'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-021	Date Collected:	08.07.2020 09:55		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.11.2020 14:10	Basis:	Wet Weight
Seq Number:	3134218				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**840**	50.0	mg/kg	08.11.2020 16:25		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.11.2020 12:00	Basis:	Wet Weight
Seq Number:	3134289				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.11.2020 19:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	**179**	49.9	mg/kg	08.11.2020 19:04		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.11.2020 19:04	U	1
Total TPH	PHC635	**179**	49.9	mg/kg	08.11.2020 19:04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	08.11.2020 19:04	
o-Terphenyl	84-15-1	116	%	70-130	08.11.2020 19:04	

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-4 1'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-021	Date Collected:	08.07.2020 09:55		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.12.2020 09:00	Basis:	Wet Weight
Seq Number:	3134386				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.12.2020 13:50	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.12.2020 13:50	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.12.2020 13:50	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.12.2020 13:50	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.12.2020 13:50	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.12.2020 13:50	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.12.2020 13:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.12.2020 13:50	
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.12.2020 13:50	

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id: **SP-4 3'** Matrix: Soil Date Received:08.10.2020 09:00

Lab Sample Id: 669565-022 Date Collected: 08.07.2020 09:56

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.11.2020 14:10 Basis: Wet Weight

Seq Number: 3134218

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**660**	25.3	mg/kg	08.11.2020 16:30		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.11.2020 12:00 Basis: Wet Weight

Seq Number: 3134289

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.11.2020 19:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.11.2020 19:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.11.2020 19:23	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.11.2020 19:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-130	08.11.2020 19:23	
o-Terphenyl	84-15-1	116	%	70-130	08.11.2020 19:23	

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Certificate of Analytical Results 669565

Larson and Associates, Inc., Midland, TX

VNO Mas

Sample Id:	**SP-4 3'**	Matrix:	Soil	Date Received:	08.10.2020 09:00
Lab Sample Id:	669565-022	Date Collected:	08.07.2020 09:56		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	08.12.2020 09:00	Basis:	Wet Weight
Seq Number:	3134386				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.12.2020 14:10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.12.2020 14:10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.12.2020 14:10	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.12.2020 14:10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.12.2020 14:10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.12.2020 14:10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.12.2020 14:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.12.2020 14:10	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.12.2020 14:10	

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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QC Summary 669565

Larson and Associates, Inc.

VNO Mas

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3134228 — Matrix: Solid — Date Prep: 08.11.2020
MB Sample Id: 7709150-1-BLK — LCS Sample Id: 7709150-1-BKS — LCSD Sample Id: 7709150-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	264	106	265	106	90-110	0	20	mg/kg	08.11.2020 15:57	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3134218 — Matrix: Solid — Date Prep: 08.11.2020
MB Sample Id: 7709184-1-BLK — LCS Sample Id: 7709184-1-BKS — LCSD Sample Id: 7709184-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	264	106	263	105	90-110	0	20	mg/kg	08.11.2020 15:08	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3134228 — Matrix: Soil — Date Prep: 08.11.2020
Parent Sample Id: 669564-011 — MS Sample Id: 669564-011 S — MSD Sample Id: 669564-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	81.7	251	350	107	345	105	90-110	1	20	mg/kg	08.11.2020 16:16	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3134228 — Matrix: Soil — Date Prep: 08.11.2020
Parent Sample Id: 669565-005 — MS Sample Id: 669565-005 S — MSD Sample Id: 669565-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	78.8	1260	1430	107	1420	106	90-110	1	20	mg/kg	08.11.2020 17:45	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3134218 — Matrix: Soil — Date Prep: 08.11.2020
Parent Sample Id: 669565-015 — MS Sample Id: 669565-015 S — MSD Sample Id: 669565-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	223	250	484	104	483	104	90-110	0	20	mg/kg	08.11.2020 15:38	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3134218 — Matrix: Soil — Date Prep: 08.11.2020
Parent Sample Id: 669566-003 — MS Sample Id: 669566-003 S — MSD Sample Id: 669566-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	259	250	519	104	520	104	90-110	0	20	mg/kg	08.11.2020 16:51	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

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QC Summary 669565

Larson and Associates, Inc.

VNO Mas

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3134149 — Matrix: Solid — Date Prep: 08.10.2020
MB Sample Id: 7709121-1-BLK — LCS Sample Id: 7709121-1-BKS — LCSD Sample Id: 7709121-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	945	95	890	89	70-130	6	20	mg/kg	08.10.2020 12:50	
Diesel Range Organics (DRO)	<50.0	1000	954	95	859	86	70-130	10	20	mg/kg	08.10.2020 12:50	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		113		119		70-130	%	08.10.2020 12:50
o-Terphenyl	120		121		115		70-130	%	08.10.2020 12:50

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3134289 — Matrix: Solid — Date Prep: 08.11.2020
MB Sample Id: 7709212-1-BLK — LCS Sample Id: 7709212-1-BKS — LCSD Sample Id: 7709212-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	854	85	884	88	70-130	3	20	mg/kg	08.11.2020 12:17	
Diesel Range Organics (DRO)	<50.0	1000	838	84	898	90	70-130	7	20	mg/kg	08.11.2020 12:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		124		129		70-130	%	08.11.2020 12:17
o-Terphenyl	121		120		128		70-130	%	08.11.2020 12:17

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3134149 — Matrix: Solid — Date Prep: 08.10.2020
MB Sample Id: 7709121-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.10.2020 12:30	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3134289 — Matrix: Solid — Date Prep: 08.11.2020
MB Sample Id: 7709212-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.11.2020 11:57	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

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QC Summary 669565

Larson and Associates, Inc.

VNO Mas

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3134149 Matrix: Soil Date Prep: 08.10.2020
Parent Sample Id: 669565-002 MS Sample Id: 669565-002 S MSD Sample Id: 669565-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	853	85	846	85	70-130	1	20	mg/kg	08.10.2020 13:51	
Diesel Range Organics (DRO)	<49.9	998	857	86	853	86	70-130	0	20	mg/kg	08.10.2020 13:51	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		108		70-130	%	08.10.2020 13:51
o-Terphenyl	127		105		70-130	%	08.10.2020 13:51

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3134289 Matrix: Soil Date Prep: 08.11.2020
Parent Sample Id: 669564-001 MS Sample Id: 669564-001 S MSD Sample Id: 669564-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	801	80	821	82	70-130	2	20	mg/kg	08.11.2020 13:16	
Diesel Range Organics (DRO)	104	997	874	77	866	77	70-130	1	20	mg/kg	08.11.2020 13:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		124		70-130	%	08.11.2020 13:16
o-Terphenyl	120		124		70-130	%	08.11.2020 13:16

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3134276 Matrix: Solid Date Prep: 08.11.2020
MB Sample Id: 7709267-1-BLK LCS Sample Id: 7709267-1-BKS LCSD Sample Id: 7709267-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.104	104	0.106	106	70-130	2	35	mg/kg	08.11.2020 20:35	
Toluene	<0.00200	0.100	0.0980	98	0.100	100	70-130	2	35	mg/kg	08.11.2020 20:35	
Ethylbenzene	<0.00200	0.100	0.0951	95	0.0982	98	70-130	3	35	mg/kg	08.11.2020 20:35	
m,p-Xylenes	<0.00400	0.200	0.189	95	0.195	98	70-130	3	35	mg/kg	08.11.2020 20:35	
o-Xylene	<0.00200	0.100	0.0937	94	0.0971	97	70-130	4	35	mg/kg	08.11.2020 20:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		101		100		70-130	%	08.11.2020 20:35
4-Bromofluorobenzene	105		100		100		70-130	%	08.11.2020 20:35

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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QC Summary 669565

Larson and Associates, Inc.

VNO Mas

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3134386 — Matrix: Solid — Date Prep: 08.12.2020
MB Sample Id: 7709352-1-BLK — LCS Sample Id: 7709352-1-BKS — LCSD Sample Id: 7709352-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.116	116	0.108	108	70-130	7	35	mg/kg	08.12.2020 09:17	
Toluene	<0.00200	0.100	0.123	123	0.116	116	70-130	6	35	mg/kg	08.12.2020 09:17	
Ethylbenzene	<0.00200	0.100	0.106	106	0.0995	100	70-130	6	35	mg/kg	08.12.2020 09:17	
m,p-Xylenes	<0.00400	0.200	0.216	108	0.202	101	70-130	7	35	mg/kg	08.12.2020 09:17	
o-Xylene	<0.00200	0.100	0.105	105	0.0982	98	70-130	7	35	mg/kg	08.12.2020 09:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		101		100		70-130	%	08.12.2020 09:17
4-Bromofluorobenzene	100		98		99		70-130	%	08.12.2020 09:17

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3134276 — Matrix: Soil — Date Prep: 08.11.2020
Parent Sample Id: 669564-015 — MS Sample Id: 669564-015 S — MSD Sample Id: 669564-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0875	88	0.0812	82	70-130	7	35	mg/kg	08.11.2020 21:16	
Toluene	<0.00200	0.0998	0.0818	82	0.0794	80	70-130	3	35	mg/kg	08.11.2020 21:16	
Ethylbenzene	<0.00200	0.0998	0.0758	76	0.0729	73	70-130	4	35	mg/kg	08.11.2020 21:16	
m,p-Xylenes	<0.00399	0.200	0.154	77	0.153	77	70-130	1	35	mg/kg	08.11.2020 21:16	
o-Xylene	<0.00200	0.0998	0.0768	77	0.0769	78	70-130	0	35	mg/kg	08.11.2020 21:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	08.11.2020 21:16
4-Bromofluorobenzene	101		105		70-130	%	08.11.2020 21:16

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3134386 — Matrix: Soil — Date Prep: 08.12.2020
Parent Sample Id: 669565-019 — MS Sample Id: 669565-019 S — MSD Sample Id: 669565-019 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.113	113	0.0991	100	70-130	13	35	mg/kg	08.12.2020 10:05	
Toluene	<0.00200	0.100	0.0974	97	0.0892	90	70-130	9	35	mg/kg	08.12.2020 10:05	
Ethylbenzene	<0.00200	0.100	0.0882	88	0.0744	75	70-130	17	35	mg/kg	08.12.2020 10:05	
m,p-Xylenes	<0.00401	0.200	0.156	78	0.134	67	70-130	15	35	mg/kg	08.12.2020 10:05	X
o-Xylene	<0.00200	0.100	0.0899	90	0.0742	75	70-130	19	35	mg/kg	08.12.2020 10:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		100		70-130	%	08.12.2020 10:05
4-Bromofluorobenzene	99		100		70-130	%	08.12.2020 10:05

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

No 1327

CHAIN-OF-CUSTODY

660565

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 8/7/20 PAGE 1 OF 2
PO#:
LAB WORK ORDER#:
PROJECT LOCATION OR NAME: ~~DOS MOS~~ Vao mas
LAI PROJECT #: 20-0128-01 COLLECTOR: DS & TJ

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

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

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	BTEX	Gasoline Mod 8015	Diesel Mod 8015	Oil Mod 8015	Chloride	Field Notes
SP-7 1'		8/6/20	1336	S	1	X	X	X	X	X	
SP-7 3'			1338			X					
SP-8 1'			1103			X					
SP-8 3'			1105			X					
SP-9 1'			1053			X					
SP-9 3'			1055			X					
SP-12 1'			1030			X					
SP-12 3'			1032			X					
SP-13 1.5'			1115			X					
SP-6 1'			1402			X					
SP-6 3'			1404			X					
SP-5 1'			1412			X					
SP-5 3'			1414			X					
SP-5 5'			1416			X					
SP-5 7'			1425			X					
TOTAL 15											

RELINQUISHED BY:(Signature) [signature] DATE/TIME 8/10/20 RECEIVED BY: (Signature) [signature]
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)
LABORATORY: Xenco

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

LABORATORY USE ONLY:
RECEIVING TEMP: 1.4/1.2 THERM#: TRC
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Nº 1328

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 8/7/20 PAGE 2 OF 2
PO#: LAB WORK ORDER#:
PROJECT LOCATION OR NAME: ~~DGS MAS~~ Uno mas
LAI PROJECT #: 20-0128-01 COLLECTOR: TJ+DS

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

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

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	ICE	BTEX	GASOLINE MOD 8015	DIESEL - MOD 8015	OIL - MOD 8015	CHLORIDE	FIELD NOTES
SP-11 1'		8/7/20	0919	S	1	X	X	X	X	X	X	
SP-11 3'			0920									
SP-10 1'			0946									
SP-10 3'			0947									
SP-10 5'			0948									
SP-4 1'			0955									
SP-4 3'			0956									

(Date, Matrix, # of Containers, ICE and analysis marks are carried down to all rows by vertical lines.)

TOTAL 7

RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	8/10/20	[signature]

LABORATORY: Xenco

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

LABORATORY USE ONLY:
RECEIVING TEMP: 1.0/1.0 THERM#: T-RE
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Date/ Time Received: 08.10.2020 09.00.00 AM

Work Order #: 669565

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.2	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	BTEX was in bulk container
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**N/A**	
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 08.10.2020
Brianna Teel

Checklist reviewed by: Holly Taylor Date: 08.11.2020
Holly Taylor

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Certificate of Analysis Summary 669777

Larson and Associates, Inc., Midland, TX

Project Name: V-F Petroleum UNO MAS

Project Id: 20-0128.01
Contact: Mark Larson
Project Location:

Date Received in Lab: Wed 08.12.2020 08:25
Report Date: 08.17.2020 14:10
Project Manager: Holly Taylor

Analysis Requested									
	Lab Id:	669777-001		669777-002					
	Field Id:	SP-14 @ 0.5'		SP-14 @ 1'					
	Depth:								
	Matrix:	SOIL		SOIL					
	Sampled:	08.11.2020 12:38		08.11.2020 12:44					
BTEX by EPA 8021B	***Extracted:***	08.13.2020 14:00		08.13.2020 14:00					
	Analyzed:	08.14.2020 00:05		08.14.2020 00:25					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00199	0.00199				
Toluene		<0.00200	0.00200	<0.00199	0.00199				
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199				
m,p-Xylenes		<0.00399	0.00399	<0.00398	0.00398				
o-Xylene		<0.00200	0.00200	<0.00199	0.00199				
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199				
Total BTEX		<0.00200	0.00200	<0.00199	0.00199				
Chloride by EPA 300	***Extracted:***	08.12.2020 16:40		08.12.2020 16:40					
	Analyzed:	08.12.2020 17:00		08.12.2020 17:19					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		<4.96	4.96	<5.03	5.03				
TPH by SW8015 Mod	***Extracted:***	08.12.2020 17:00		08.12.2020 17:00					
	Analyzed:	08.13.2020 03:19		08.13.2020 03:38					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9				
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9				
Total TPH		<50.0	50.0	<49.9	49.9				

BRL - Below Reporting Limit

Holly Taylor

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Analytical Report 669777

for

Larson and Associates, Inc.

Project Manager: Mark Larson

V-F Petroleum UNO MAS

20-0128.01

08.17.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-37), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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08.17.2020

Project Manager: **Mark Larson**
Larson and Associates, Inc.
P. O. Box 50685
Midland, TX 79710

Reference: Eurofins Xenco, LLC Report No(s): **669777**
V-F Petroleum UNO MAS
Project Address:

Mark Larson :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 669777. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 669777 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Holly Taylor

Holly Taylor
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 669777

Larson and Associates, Inc., Midland, TX

V-F Petroleum UNO MAS

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-14 @ 0.5'	S	08.11.2020 12:38		669777-001
SP-14 @ 1'	S	08.11.2020 12:44		669777-002

CASE NARRATIVE

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Client Name: Larson and Associates, Inc.

Project Name: V-F Petroleum UNO MAS

Project ID: *20-0128.01*
Work Order Number(s): *669777*

Report Date: *08.17.2020*
Date Received: *08.12.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3134378 Chloride by EPA 300

Lab Sample ID 669808-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 669777-001, -002.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3134434 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7709337-1-BLK.

Batch: LBA-3134523 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Samples affected are: 7709441-1-BKS,7709441-1-BLK,7709441-1-BSD,669700-002 S,669700-002 SD,669777-001,669777-002.

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Certificate of Analytical Results 669777

Larson and Associates, Inc., Midland, TX

V-F Petroleum UNO MAS

Sample Id: **SP-14 @ 0.5'** Matrix: Soil Date Received:08.12.2020 08:25

Lab Sample Id: 669777-001 Date Collected: 08.11.2020 12:38

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.12.2020 16:40 Basis: Wet Weight

Seq Number: 3134378

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	08.12.2020 17:00	UX	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.12.2020 17:00 Basis: Wet Weight

Seq Number: 3134434

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.13.2020 03:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.13.2020 03:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.13.2020 03:19	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.13.2020 03:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-130	08.13.2020 03:19	
o-Terphenyl	84-15-1	125	%	70-130	08.13.2020 03:19	

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Certificate of Analytical Results 669777

Larson and Associates, Inc., Midland, TX

V-F Petroleum UNO MAS

Sample Id:	**SP-14 @ 0.5'**	Matrix:	Soil	Date Received:	08.12.2020 08:25
Lab Sample Id:	669777-001	Date Collected:	08.11.2020 12:38		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.13.2020 14:00	Basis:	Wet Weight
Seq Number:	3134523				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.14.2020 00:05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.14.2020 00:05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.14.2020 00:05	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.14.2020 00:05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.14.2020 00:05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.14.2020 00:05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.14.2020 00:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	158	%	70-130	08.14.2020 00:05	**
1,4-Difluorobenzene	540-36-3	84	%	70-130	08.14.2020 00:05	

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Certificate of Analytical Results 669777

Larson and Associates, Inc., Midland, TX

V-F Petroleum UNO MAS

Sample Id: **SP-14 @ 1'** Matrix: Soil Date Received:08.12.2020 08:25

Lab Sample Id: 669777-002 Date Collected: 08.11.2020 12:44

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 08.12.2020 16:40 Basis: Wet Weight

Seq Number: 3134378

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.03	5.03	mg/kg	08.12.2020 17:19	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.12.2020 17:00 Basis: Wet Weight

Seq Number: 3134434

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.13.2020 03:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.13.2020 03:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.13.2020 03:38	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.13.2020 03:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-130	08.13.2020 03:38	
o-Terphenyl	84-15-1	122	%	70-130	08.13.2020 03:38	

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Certificate of Analytical Results 669777

Larson and Associates, Inc., Midland, TX

V-F Petroleum UNO MAS

Sample Id:	**SP-14 @ 1'**	Matrix:	Soil	Date Received:	08.12.2020 08:25
Lab Sample Id:	669777-002	Date Collected:	08.11.2020 12:44		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	08.13.2020 14:00	Basis:	Wet Weight
Seq Number:	3134523				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.14.2020 00:25	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.14.2020 00:25	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.14.2020 00:25	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.14.2020 00:25	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.14.2020 00:25	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.14.2020 00:25	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.14.2020 00:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	150	%	70-130	08.14.2020 00:25	**
1,4-Difluorobenzene	540-36-3	92	%	70-130	08.14.2020 00:25	

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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QC Summary 669777

Larson and Associates, Inc.

V-F Petroleum UNO MAS

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3134378 — Matrix: Solid — Date Prep: 08.12.2020
MB Sample Id: 7709299-1-BLK — LCS Sample Id: 7709299-1-BKS — LCSD Sample Id: 7709299-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	273	109	274	110	90-110	0	20	mg/kg	08.12.2020 16:47	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3134378 — Matrix: Soil — Date Prep: 08.12.2020
Parent Sample Id: 669777-001 — MS Sample Id: 669777-001 S — MSD Sample Id: 669777-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.96	248	282	114	280	113	90-110	1	20	mg/kg	08.12.2020 17:06	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3134378 — Matrix: Soil — Date Prep: 08.12.2020
Parent Sample Id: 669808-001 — MS Sample Id: 669808-001 S — MSD Sample Id: 669808-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2230	1240	3590	110	3590	110	90-110	0	20	mg/kg	08.12.2020 18:35	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3134434 — Matrix: Solid — Date Prep: 08.12.2020
MB Sample Id: 7709337-1-BLK — LCS Sample Id: 7709337-1-BKS — LCSD Sample Id: 7709337-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1040	104	1000	100	70-130	4	20	mg/kg	08.12.2020 20:04	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	996	100	70-130	3	20	mg/kg	08.12.2020 20:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		81		81		70-130	%	08.12.2020 20:04
o-Terphenyl	143	**	75		72		70-130	%	08.12.2020 20:04

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3134434 — Matrix: Solid — Date Prep: 08.12.2020
MB Sample Id: 7709337-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.12.2020 19:45	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

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QC Summary 669777

Larson and Associates, Inc.

V-F Petroleum UNO MAS

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3134434 Matrix: Soil Date Prep: 08.12.2020
Parent Sample Id: 669771-001 MS Sample Id: 669771-001 S MSD Sample Id: 669771-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	986	99	975	98	70-130	1	20	mg/kg	08.12.2020 21:01	
Diesel Range Organics (DRO)	<49.9	997	995	100	979	98	70-130	2	20	mg/kg	08.12.2020 21:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		130		70-130	%	08.12.2020 21:01
o-Terphenyl	122		119		70-130	%	08.12.2020 21:01

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3134523 Matrix: Solid Date Prep: 08.13.2020
MB Sample Id: 7709441-1-BLK LCS Sample Id: 7709441-1-BKS LCSD Sample Id: 7709441-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.100	100	0.109	109	70-130	9	35	mg/kg	08.13.2020 16:28	
Toluene	<0.00200	0.100	0.102	102	0.111	111	70-130	8	35	mg/kg	08.13.2020 16:28	
Ethylbenzene	<0.00200	0.100	0.0985	99	0.106	106	70-130	7	35	mg/kg	08.13.2020 16:28	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.210	105	70-130	7	35	mg/kg	08.13.2020 16:28	
o-Xylene	<0.00200	0.100	0.0971	97	0.105	105	70-130	8	35	mg/kg	08.13.2020 16:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	82		96		98		70-130	%	08.13.2020 16:28
4-Bromofluorobenzene	138	**	143	**	147	**	70-130	%	08.13.2020 16:28

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3134523 Matrix: Soil Date Prep: 08.13.2020
Parent Sample Id: 669700-002 MS Sample Id: 669700-002 S MSD Sample Id: 669700-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0888	89	0.0918	93	70-130	3	35	mg/kg	08.13.2020 17:14	
Toluene	<0.00200	0.0998	0.0896	90	0.0940	95	70-130	5	35	mg/kg	08.13.2020 17:14	
Ethylbenzene	<0.00200	0.0998	0.0853	85	0.0880	89	70-130	3	35	mg/kg	08.13.2020 17:14	
m,p-Xylenes	<0.00399	0.200	0.168	84	0.174	88	70-130	4	35	mg/kg	08.13.2020 17:14	
o-Xylene	<0.00200	0.0998	0.0836	84	0.0878	89	70-130	5	35	mg/kg	08.13.2020 17:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		93		70-130	%	08.13.2020 17:14
4-Bromofluorobenzene	161	**	160	**	70-130	%	08.13.2020 17:14

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Nº 1261

Vol 9777

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

DATE: 8/12/2020 PAGE 1 OF 1

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: V-F Petroleum Uno Mas

LAI PROJECT #: 20-0128-01 COLLECTOR: DN

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TBLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDES ☒ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
SP-14 @ 0.5'		8/11/20	12:38	S	1				X		X		X	X	X													X	
SP-14 @ 1'		1	12:49	1	1				1		1		1	1	1													1	
TOTAL																													

RELINQUISHED BY:(Signature) DATE/TIME 8/12/20 8:25 RECEIVED BY: (Signature) Tetra Tech

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

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

LABORATORY: Xenco

TURN AROUND TIME
NORMAL ☐
1 DAY ☐
2 DAY ☐
OTHER ☒ 3 Day

LABORATORY USE ONLY:
RECEIVING TEMP: 2.5/2.1 THERM#: IR-6
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Date/ Time Received: 08.12.2020 08.25.00 AM

Work Order #: 669777

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.1	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	BTEX was in bulk container
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**N/A**	
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 08.12.2020
Brianna Teel

Checklist reviewed by: Holly Taylor Date: 08.17.2020
Holly Taylor

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Certificate of Analysis Summary 670839

Larson and Associates, Inc., Midland, TX

Project Name: Uno Mas

Project Id: 20-0128-01
Contact: Mark Larson
Project Location:

Date Received in Lab: Tue 08.25.2020 08:24
Report Date: 08.31.2020 15:47
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	670839-001		670839-002		670839-003		670839-004		670839-005		670839-006	
	Field Id:	BH-8 5'		BH-8 10'		BH-12 5'		BH-12 10'		BH-10 5'		BH-10 10'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	08.24.2020 10:45		08.24.2020 10:50		08.24.2020 11:30		08.24.2020 11:32		08.24.2020 12:28		08.24.2020 12:30	
TPH by SW8015 Mod	***Extracted:***	08.27.2020 17:00		08.28.2020 12:00		08.28.2020 12:00		08.28.2020 12:00		08.28.2020 12:00		08.28.2020 12:00	
	Analyzed:	08.28.2020 06:29		08.28.2020 22:42		08.28.2020 23:54		08.29.2020 00:18		08.29.2020 00:41		08.29.2020 01:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0
Total TPH		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Certificate of Analysis Summary 670839

Larson and Associates, Inc., Midland, TX

Project Name: Uno Mas

Project Id: 20-0128-01
Contact: Mark Larson
Project Location:

Date Received in Lab: Tue 08.25.2020 08:24
Report Date: 08.31.2020 15:47
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	670839-007		670839-008		670839-009		670839-010		670839-011		670839-013	
	Field Id:	BH-11 5'		BH-11 10'		BH-6 5'		BH-6 10'		BH-6 15'		BH-4 5'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	08.24.2020 12:50		08.24.2020 12:55		08.24.2020 13:20		08.24.2020 13:25		08.24.2020 13:58		08.24.2020 15:00	
Chloride by EPA 300	***Extracted:***	08.25.2020 15:40		08.25.2020 15:40		08.25.2020 15:40		08.25.2020 15:40		08.25.2020 16:00		08.25.2020 16:00	
	Analyzed:	08.25.2020 21:02		08.25.2020 21:07		08.25.2020 21:13		08.25.2020 21:18		08.25.2020 21:50		08.25.2020 22:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		554	4.97	197	4.99	1070	5.02	1660	24.8	652	5.00	719	4.98

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor

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Analytical Report 670839

for

Larson and Associates, Inc.

Project Manager: Mark Larson

Uno Mas

20-0128-01

08.31.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-37), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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08.31.2020

Project Manager: **Mark Larson**
Larson and Associates, Inc.
P. O. Box 50685
Midland, TX 79710

Reference: Eurofins Xenco, LLC Report No(s): **670839**
Uno Mas
Project Address:

Mark Larson :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 670839. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 670839 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Holly Taylor

Holly Taylor
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 670839

Larson and Associates, Inc., Midland, TX

Uno Mas

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-8 5'	S	08.24.2020 10:45		670839-001
BH-8 10'	S	08.24.2020 10:50		670839-002
BH-12 5'	S	08.24.2020 11:30		670839-003
BH-12 10'	S	08.24.2020 11:32		670839-004
BH-10 5'	S	08.24.2020 12:28		670839-005
BH-10 10'	S	08.24.2020 12:30		670839-006
BH-11 5'	S	08.24.2020 12:50		670839-007
BH-11 10'	S	08.24.2020 12:55		670839-008
BH-6 5'	S	08.24.2020 13:20		670839-009
BH-6 10'	S	08.24.2020 13:25		670839-010
BH-6 15'	S	08.24.2020 13:58		670839-011
BH-4 5'	S	08.24.2020 15:00		670839-013
BH-6 20'	S	08.24.2020 14:00		Not Analyzed
BH-4 10'	S	08.24.2020 15:05		Not Analyzed

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CASE NARRATIVE

Client Name: Larson and Associates, Inc.

Project Name: Uno Mas

Project ID: *20-0128-01*
Work Order Number(s): *670839*

Report Date: *08.31.2020*
Date Received: *08.25.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3135952 TPH by SW8015 Mod

Lab Sample ID 670839-002 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Diesel Range Organics (DRO) recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 670839-002, -003, -004, -005, -006. The Laboratory Control Sample for Diesel Range Organics (DRO) is within laboratory Control Limits, therefore the data was accepted.

Diesel Range Organics (DRO), Gasoline Range Hydrocarbons (GRO) Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 670839-002, -003, -004, -005, -006

eurofins | Environment Testing Xenco

Certificate of Analytical Results 670839

Larson and Associates, Inc., Midland, TX

Uno Mas

Sample Id:	**BH-8 5'**	Matrix:	Soil	Date Received:	08.25.2020 08:24
Lab Sample Id:	670839-001	Date Collected:	08.24.2020 10:45		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.27.2020 17:00	Basis:	Wet Weight
Seq Number:	3135833				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.28.2020 06:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.28.2020 06:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.28.2020 06:29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.28.2020 06:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	08.28.2020 06:29	
o-Terphenyl	84-15-1	113	%	70-130	08.28.2020 06:29	

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Larson and Associates, Inc., Midland, TX

Uno Mas

Sample Id:	**BH-8 10'**	Matrix:	Soil	Date Received:	08.25.2020 08:24
Lab Sample Id:	670839-002	Date Collected:	08.24.2020 10:50		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.2020 12:00	Basis:	Wet Weight
Seq Number:	3135952				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.28.2020 22:42	UF	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.28.2020 22:42	UXF	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.28.2020 22:42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.28.2020 22:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	08.28.2020 22:42	
o-Terphenyl	84-15-1	107	%	70-130	08.28.2020 22:42	

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Certificate of Analytical Results 670839

Larson and Associates, Inc., Midland, TX

Uno Mas

Sample Id:	**BH-12 5'**	Matrix:	Soil	Date Received:	08.25.2020 08:24
Lab Sample Id:	670839-003	Date Collected:	08.24.2020 11:30		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.2020 12:00	Basis:	Wet Weight
Seq Number:	3135952				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.28.2020 23:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.28.2020 23:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.28.2020 23:54	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.28.2020 23:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-130	08.28.2020 23:54	
o-Terphenyl	84-15-1	103	%	70-130	08.28.2020 23:54	

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Larson and Associates, Inc., Midland, TX

Uno Mas

Sample Id:	**BH-12 10'**	Matrix:	Soil	Date Received:	08.25.2020 08:24
Lab Sample Id:	670839-004	Date Collected:	08.24.2020 11:32		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.2020 12:00	Basis:	Wet Weight
Seq Number:	3135952				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.29.2020 00:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.29.2020 00:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.29.2020 00:18	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.29.2020 00:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	08.29.2020 00:18	
o-Terphenyl	84-15-1	92	%	70-130	08.29.2020 00:18	

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Larson and Associates, Inc., Midland, TX

Uno Mas

Sample Id:	**BH-10 5'**	Matrix:	Soil	Date Received:	08.25.2020 08:24
Lab Sample Id:	670839-005	Date Collected:	08.24.2020 12:28		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.2020 12:00	Basis:	Wet Weight
Seq Number:	3135952				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.29.2020 00:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.29.2020 00:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.29.2020 00:41	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.29.2020 00:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	08.29.2020 00:41	
o-Terphenyl	84-15-1	97	%	70-130	08.29.2020 00:41	

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Larson and Associates, Inc., Midland, TX

Uno Mas

Sample Id:	**BH-10 10'**	Matrix:	Soil	Date Received:	08.25.2020 08:24
Lab Sample Id:	670839-006	Date Collected:	08.24.2020 12:30		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	08.28.2020 12:00	Basis:	Wet Weight
Seq Number:	3135952				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.29.2020 01:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.29.2020 01:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.29.2020 01:05	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.29.2020 01:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-130	08.29.2020 01:05	
o-Terphenyl	84-15-1	99	%	70-130	08.29.2020 01:05	

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Larson and Associates, Inc., Midland, TX

Uno Mas

Sample Id:	**BH-11 5'**	Matrix:	Soil	Date Received:	08.25.2020 08:24
Lab Sample Id:	670839-007	Date Collected:	08.24.2020 12:50		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.25.2020 15:40	Basis:	Wet Weight
Seq Number:	3135535				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**554**	4.97	mg/kg	08.25.2020 21:02		1

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Larson and Associates, Inc., Midland, TX

Uno Mas

Sample Id:	**BH-11 10'**	Matrix:	Soil	Date Received:	08.25.2020 08:24
Lab Sample Id:	670839-008	Date Collected:	08.24.2020 12:55		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.25.2020 15:40	Basis:	Wet Weight
Seq Number:	3135535				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**197**	4.99	mg/kg	08.25.2020 21:07		1

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Larson and Associates, Inc., Midland, TX

Uno Mas

Sample Id:	**BH-6 5'**	Matrix:	Soil	Date Received:	08.25.2020 08:24
Lab Sample Id:	670839-009	Date Collected:	08.24.2020 13:20		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.25.2020 15:40	Basis:	Wet Weight
Seq Number:	3135535				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1070**	5.02	mg/kg	08.25.2020 21:13		1

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Larson and Associates, Inc., Midland, TX

Uno Mas

Sample Id:	**BH-6 10'**	Matrix:	Soil	Date Received:	08.25.2020 08:24
Lab Sample Id:	670839-010	Date Collected:	08.24.2020 13:25		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.25.2020 15:40	Basis:	Wet Weight
Seq Number:	3135535				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1660**	24.8	mg/kg	08.25.2020 21:18		5

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Larson and Associates, Inc., Midland, TX

Uno Mas

Sample Id:	**BH-6 15'**	Matrix:	Soil	Date Received:	08.25.2020 08:24
Lab Sample Id:	670839-011	Date Collected:	08.24.2020 13:58		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.25.2020 16:00	Basis:	Wet Weight
Seq Number:	3135539				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**652**	5.00	mg/kg	08.25.2020 21:50		1

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Larson and Associates, Inc., Midland, TX

Uno Mas

Sample Id:	**BH-4 5'**	Matrix:	Soil	Date Received:	08.25.2020 08:24
Lab Sample Id:	670839-013	Date Collected:	08.24.2020 15:00		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	08.25.2020 16:00	Basis:	Wet Weight
Seq Number:	3135539				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**719**	4.98	mg/kg	08.25.2020 22:05		1

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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QC Summary 670839

Larson and Associates, Inc.

Uno Mas

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3135535 — Matrix: Solid — Date Prep: 08.25.2020
MB Sample Id: 7710136-1-BLK — LCS Sample Id: 7710136-1-BKS — LCSD Sample Id: 7710136-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	247	99	247	99	90-110	0	20	mg/kg	08.25.2020 18:45	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3135539 — Matrix: Solid — Date Prep: 08.25.2020
MB Sample Id: 7710137-1-BLK — LCS Sample Id: 7710137-1-BKS — LCSD Sample Id: 7710137-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	247	99	246	98	90-110	0	20	mg/kg	08.25.2020 21:39	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3135535 — Matrix: Soil — Date Prep: 08.25.2020
Parent Sample Id: 670889-021 — MS Sample Id: 670889-021 S — MSD Sample Id: 670889-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	498	248	740	98	738	97	90-110	0	20	mg/kg	08.25.2020 19:01	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3135535 — Matrix: Soil — Date Prep: 08.25.2020
Parent Sample Id: 670889-031 — MS Sample Id: 670889-031 S — MSD Sample Id: 670889-031 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	33.6	248	299	107	299	107	90-110	0	20	mg/kg	08.25.2020 20:15	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3135539 — Matrix: Soil — Date Prep: 08.25.2020
Parent Sample Id: 670837-006 — MS Sample Id: 670837-006 S — MSD Sample Id: 670837-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	441	1260	1800	108	1800	108	90-110	0	20	mg/kg	08.25.2020 23:09	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3135539 — Matrix: Soil — Date Prep: 08.25.2020
Parent Sample Id: 670839-011 — MS Sample Id: 670839-011 S — MSD Sample Id: 670839-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	652	250	889	95	893	96	90-110	0	20	mg/kg	08.25.2020 21:55	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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QC Summary 670839

Larson and Associates, Inc.

Uno Mas

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3135833 — Matrix: Solid — Date Prep: 08.27.2020
MB Sample Id: 7710336-1-BLK — LCS Sample Id: 7710336-1-BKS — LCSD Sample Id: 7710336-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1190	119	1070	107	70-130	11	20	mg/kg	08.28.2020 05:50	
Diesel Range Organics (DRO)	<50.0	1000	1180	118	1160	116	70-130	2	20	mg/kg	08.28.2020 05:50	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		127		114		70-130	%	08.28.2020 05:50
o-Terphenyl	111		128		118		70-130	%	08.28.2020 05:50

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3135952 — Matrix: Solid — Date Prep: 08.28.2020
MB Sample Id: 7710463-1-BLK — LCS Sample Id: 7710463-1-BKS — LCSD Sample Id: 7710463-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	857	86	835	84	70-130	3	20	mg/kg	08.28.2020 21:51	
Diesel Range Organics (DRO)	<50.0	1000	859	86	889	89	70-130	3	20	mg/kg	08.28.2020 21:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	85		78		87		70-130	%	08.28.2020 21:51
o-Terphenyl	80		75		84		70-130	%	08.28.2020 21:51

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3135833 — Matrix: Solid — Date Prep: 08.27.2020
MB Sample Id: 7710336-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.28.2020 09:28	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3135952 — Matrix: Solid — Date Prep: 08.28.2020
MB Sample Id: 7710463-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.28.2020 21:24	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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QC Summary 670839

Larson and Associates, Inc.

Uno Mas

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3135833 Matrix: Soil Date Prep: 08.27.2020
Parent Sample Id: 670839-001 MS Sample Id: 670839-001 S MSD Sample Id: 670839-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	979	98	992	100	70-130	1	20	mg/kg	08.28.2020 06:49	
Diesel Range Organics (DRO)	<49.9	997	1060	106	1070	107	70-130	1	20	mg/kg	08.28.2020 06:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		114		70-130	%	08.28.2020 06:49
o-Terphenyl	117		117		70-130	%	08.28.2020 06:49

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3135952 Matrix: Soil Date Prep: 08.28.2020
Parent Sample Id: 670839-002 MS Sample Id: 670839-002 S MSD Sample Id: 670839-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	996	852	86	1170	117	70-130	31	20	mg/kg	08.28.2020 23:06	F
Diesel Range Organics (DRO)	<49.8	996	894	90	1420	142	70-130	45	20	mg/kg	08.28.2020 23:06	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		126		70-130	%	08.28.2020 23:06
o-Terphenyl	86		108		70-130	%	08.28.2020 23:06

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Nº 1333

U708 39

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants

507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 8/24/20 PAGE 1 OF 1
PO#:
LAB WORK ORDER#:
PROJECT LOCATION OR NAME: Uno mas
LAI PROJECT #: 20-0128-01 COLLECTOR: TJ + DS

TRRP report? ☐ Yes ☒ No

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

TIME ZONE: Time zone/State: MST

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	GASOLINE MOD 8015	DIESEL - MOD 8015	OIL - MOD 8015	(blank column)	Hold	FIELD NOTES
BH-8 5'		8/24/20	1045	S	1				X		X	X	X			
BH-8 10'		↓	1050	↓	↓				↓		X	X	X			
BH-12 5'			1130								X	X	X			
BH-12 10'			1132								X	X	X			
BH-10 5'			1228								X	X	X			
BH-10 10'			1230								X	X	X			
BH-11 5'			1250											X		
BH-11 10'			1255											X		
BH-6 5'			1320											X		
BH-6 10'			1325											X		
BH-6 15'			1358											X		
BH-6 20'			1400												X	
BH-4 5'			1500											X		
BH-4 10'		↓	1505	↓	↓				↓						X	

TOTAL 14

RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	8/25/20	[signature] 0804

LABORATORY: Xenco

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

LABORATORY USE ONLY:
RECEIVING TEMP: 0.7/0.3 THERM#: IR-8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Date/ Time Received: 08.25.2020 08.24.00 AM

Work Order #: 670839

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 08.25.2020
Brianna Teel

Checklist reviewed by: Holly Taylor Date: 08.25.2020
Holly Taylor

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Certificate of Analysis Summary 673990

Larson and Associates, Inc., Midland, TX

Project Name: UNO MAS #001

Project Id:

Contact: Mark Larson

Project Location:

Date Received in Lab: Wed 09.30.2020 15:50

Report Date: 10.02.2020 20:49

Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	673990-001		673990-002		673990-003		673990-004					
	Field Id:	BH-6 20'		BH-6 25'		BH-6 30'		BH-6 35'					
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	09.30.2020 10:05		09.30.2020 10:14		09.30.2020 10:42		09.30.2020 10:51					
Chloride by EPA 300	***Extracted:***	10.01.2020 09:30		10.01.2020 09:30		10.01.2020 09:30		10.01.2020 09:30					
	Analyzed:	10.01.2020 12:41		10.01.2020 12:46		10.01.2020 12:56		10.01.2020 12:51					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		2180	24.8	1600	25.0	495	5.04	122	4.98				

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

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Analytical Report 673990

for

Larson and Associates, Inc.

Project Manager: Mark Larson

UNO MAS #001

10.02.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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10.02.2020

Project Manager: **Mark Larson**
Larson and Associates, Inc.
P. O. Box 50685
Midland, TX 79710

Reference: Eurofins Xenco, LLC Report No(s): **673990**
UNO MAS #001
Project Address:

Mark Larson :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 673990. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 673990 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 673990

Larson and Associates, Inc., Midland, TX

UNO MAS #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-6 20'	S	09.30.2020 10:05		673990-001
BH-6 25'	S	09.30.2020 10:14		673990-002
BH-6 30'	S	09.30.2020 10:42		673990-003
BH-6 35'	S	09.30.2020 10:51		673990-004

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CASE NARRATIVE

Client Name: Larson and Associates, Inc.

Project Name: UNO MAS #001

Project ID:
Work Order Number(s): *673990*

Report Date: *10.02.2020*
Date Received: *09.30.2020*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 673990

Larson and Associates, Inc., Midland, TX

UNO MAS #001

Sample Id:	**BH-6 20'**	Matrix:	Soil	Date Received:	09.30.2020 15:50
Lab Sample Id:	673990-001	Date Collected:	09.30.2020 10:05		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.01.2020 09:30	Basis:	Wet Weight
Seq Number:	3138609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2180**	24.8	mg/kg	10.01.2020 12:41		5

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Certificate of Analytical Results 673990

Larson and Associates, Inc., Midland, TX

UNO MAS #001

Sample Id:	**BH-6 25'**	Matrix:	Soil	Date Received:	09.30.2020 15:50
Lab Sample Id:	673990-002	Date Collected:	09.30.2020 10:14		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.01.2020 09:30	Basis:	Wet Weight
Seq Number:	3138609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1600**	25.0	mg/kg	10.01.2020 12:46		5

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Certificate of Analytical Results 673990

Larson and Associates, Inc., Midland, TX

UNO MAS #001

Sample Id:	**BH-6 30'**	Matrix:	Soil	Date Received:	09.30.2020 15:50
Lab Sample Id:	673990-003	Date Collected:	09.30.2020 10:42		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.01.2020 09:30	Basis:	Wet Weight
Seq Number:	3138609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**495**	5.04	mg/kg	10.01.2020 12:56		1

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Certificate of Analytical Results 673990

Larson and Associates, Inc., Midland, TX

UNO MAS #001

Sample Id:	**BH-6 35'**	Matrix:	Soil	Date Received:	09.30.2020 15:50
Lab Sample Id:	673990-004	Date Collected:	09.30.2020 10:51		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.01.2020 09:30	Basis:	Wet Weight
Seq Number:	3138609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**122**	4.98	mg/kg	10.01.2020 12:51		1

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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QC Summary 673990

Larson and Associates, Inc.

UNO MAS #001

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3138609 Matrix: Solid Date Prep: 10.01.2020
MB Sample Id: 7712416-1-BLK LCS Sample Id: 7712416-1-BKS LCSD Sample Id: 7712416-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	255	102	256	102	90-110	0	20	mg/kg	10.01.2020 10:39	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3138609 Matrix: Soil Date Prep: 10.01.2020
Parent Sample Id: 673842-004 MS Sample Id: 673842-004 S MSD Sample Id: 673842-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	142	249	391	100	391	100	90-110	0	20	mg/kg	10.01.2020 10:55	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3138609 Matrix: Soil Date Prep: 10.01.2020
Parent Sample Id: 673871-009 MS Sample Id: 673871-009 S MSD Sample Id: 673871-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4700	2480	7620	118	7590	117	90-110	0	20	mg/kg	10.01.2020 12:09	X

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

673990 № 1286

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 9/30/2020 PAGE 1 OF 1

PO#: _____ LAB WORK ORDER#: _____

PROJECT LOCATION OR NAME: Uno Mas #001

LAI PROJECT #: 20-0128-01 COLLECTOR: RW

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES	FIELD NOTES
BH-6, 20'		9/30/20	10:05	S	1					X		
BH-6, 25'		"	10:14	"	"					"		
BH-6, 30'		"	10:42	"	"					"		
BH-6, 35'		"	10:51	"	"					"		
TOTAL					4							

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

RELINQUISHED BY:(Signature) DATE/TIME 9/30/20 1550 RECEIVED BY: (Signature)

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

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

LABORATORY: Xenco

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

LABORATORY USE ONLY:
RECEIVING TEMP: 27.6 THERM#: IR8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

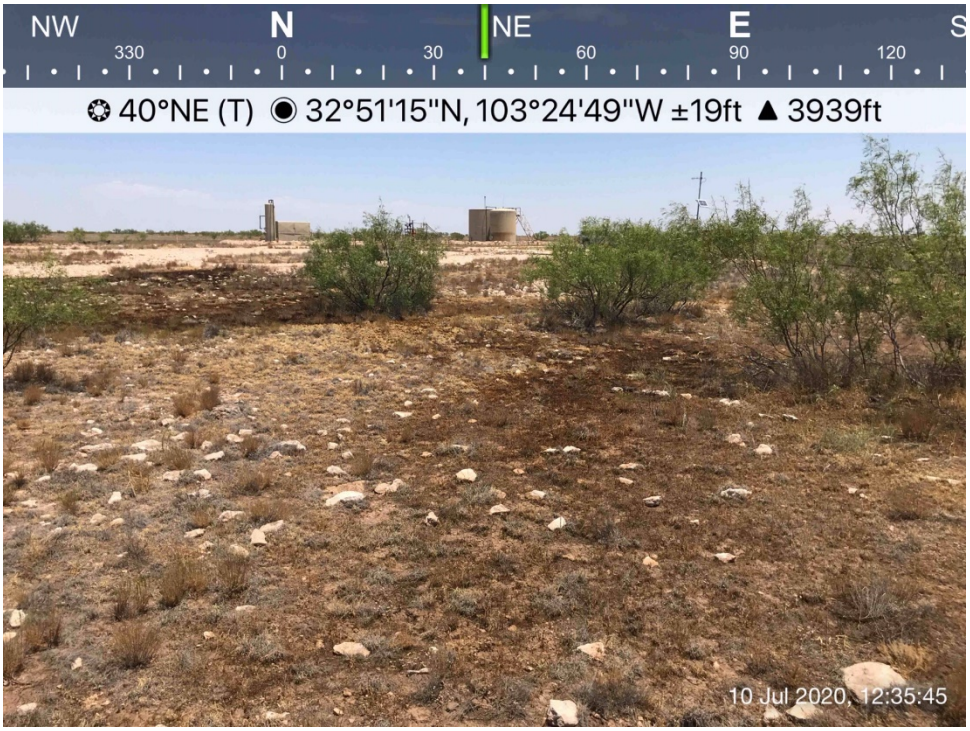
Appendix D

Photographs

View of location sign

Impacted area viewing Northeast, July 10, 2020

Tracking Number: nAPP2109954143
Delineation Report and Remediation Plan
V-F Petroleum Inc., Uno Mas #001 New Mexico
Produced Water Release
May 13, 2021



Impacted area viewing Northeast, July 10, 2020

Impacted area viewing southeast, July 10, 2020

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

Operator: V-F PETROLEUM INC P.O. Box 1889 Midland, TX 79702	OGRID: 24010
	Action Number: 28670
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	8/2/2021