State of New Mexico
Oil Conservation Division

Incident ID	nRM2004351427
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?	90 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	nRM2004351427
District RP	
Facility ID	
Application ID	

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

Printed Name: Amy Barnhill Title: Waste and Water Specialist

Signature: Amy Barnhill Date: 1-18-20

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

OCD Only

Received by: Cristina Eads Date: 01/18/2021

State of New Mexico
Oil Conservation Division

Incident ID	nRM2004351427
District RP	
Facility ID	
Application ID	

Remediation Plan

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

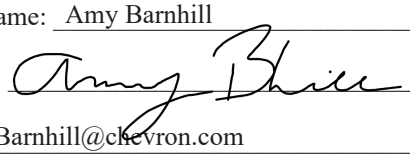
- [x] Detailed description of proposed remediation technique
- [x] Scaled sitemap with GPS coordinates showing delineation points
- [x] Estimated volume of material to be remediated
- [x] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [x] Proposed schedule for remediation (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: Amy Barnhill Title: Waste and Water Specialist

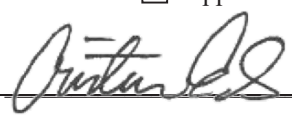
Signature:  Date: 1-18-20

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

OCD Only

Received by: Cristina Eads Date: 01/18/2021

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

Signature:  Date: 03/22/2021

Tracking Number: nRM2004351427
Delineation Report and Remediation Plan
Monument 12 State #016
Crude Oil and Produced Water Release
Lea County, New Mexico

Latitude: N 32.672589°
Longitude: W -103.311600°

LAI Project No. 20-0107-11

October 27, 2020

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

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

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

Daniel St. Germain
Staff Geoscientist

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Table of Contents

Tables

Figures

Appendices

1.0 INTRODUCTION

Larson & Associates, Inc. (LAI) has prepared this delineation report and remediation plan on behalf of Chevron USA Inc. (Chevron) for submittal to the New Mexico Oil Conservation Division (NMOCD) District 1 for a crude oil and produced water release at Monument 12 State #016 (Site). The Site is located in Unit D (NW/4, NW/4), Section 12, Township 19 South, Range 36 East in Lea County, New Mexico. The geodetic position is North 32.672589° and West -103.311600°. Figure 1 presents a location and topographic map.

1.1 Background

The release was discovered on January 24, 2020 and was the result of a small fire caused by a leak in the fire tube burner. Chevron reported that approximately 0.81 barrels (bbls) of crude oil and 4.08 bbls of produced water were released at the time of the fire. None of the released crude oil was recovered, while approximately 3 bbls of produced water were recovered. The affected area measures approximately 2,208 square feet (Figure 2). Appendix A contains the initial C-141 with fluid calculations prepared by Chevron. The C-141 was assigned incident number nRM2004351427 by NMOCD.

1.2 Physical Setting

The physical setting is as follows:

- Surface elevation is approximately 3,737 feet above mean sea level (msl).
- Surface topography gradually slopes to the southwest.
- There are no surface water features within 1,000 feet of the Site.
- Karst data provided by the USGS describes the Site as “Low Risk” potential.
- Soil is designated as Kimbrough-Lea complex, consisting of 0 to 3 inches of gravelly loam, underlain by 3-10 inches of loam, and 10-80 inches of petrocalcic material.
- The geology consists of the Ogallala Formation and has a general composition of gravel, sand, silt, clay, and caliche (USGS).
- Groundwater was reported at approximately 90 feet below ground surface (bgs) in 1948.
- According to the New Mexico Office of the State Engineer (OSE) the closest freshwater well is in Section 13, Township 19 South, Range 36 East, approximately 0.46 miles southwest of the spill area (32°40'00.5"N 103°18'54.9"W).

  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 2,500 mg/Kg
- Chloride 10,000 mg/Kg

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

2.0 DELINEATION

On April 24, 2020, LAI personnel used a stainless steel hand auger to collect soil samples at four (4) locations inside the spill area (S-1 through S-4) and four (4) locations in each cardinal direction from the spill (S-5 through S-8) for horizontal delineation. The samples were collected at approximately 0.5 and 1.0 feet bgs, depending on subsurface conditions, and were delivered under chain of custody and preservation to Permian Basin Environmental Lab (PBEL) in Midland, Texas. All samples were analyzed 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.

On May 13 and 14, 2020, LAI personnel used a Geoprobe Model 7822DT direct push rig to collect samples from five (5) locations (S-1 through S-5) inside of the spill area to depths of 1, 3 and 5 feet bgs. Two (2) additional sample locations (S-9 and S-10) were added outside of the spill area and samples were collected with a stainless-steel hand auger to depths of 0.5 and 1 feet bgs. The samples were delivered under chain of custody and preservation to Xenco Laboratory in Midland, Texas, and were analyzed for BTEX, TPH, and chloride by EPA SW-846 Methods 8021B and 8015M, and M300, respectively.

On July 24, 2020, Scarborough Drilling Inc. (SDI), under supervision from LAI, used an air rotary rig to collect soil samples every 5 feet to approximately 20 feet bgs at sample location S-1. Xenco analyzed the samples for BTEX and TPH by EPA SW-846 Methods 8021B and 8015M, respectively. All samples were analyzed for chloride using EPA SW-846 Method M300.

Benzene and BTEX were below the OCD remediation standards (19.15.29 NMAC Table 1) of 10 milligrams per kilogram (mg/Kg) and 50 mg/Kg, respectively. TPH exceeded the OCD surface restoration level (19.15.29.13 NMAC) of 100 mg/Kg in the upper 4 feet in the following samples:

Sample	Depth (feet)	TPH (mg/Kg)
S-1	0 - 0.5	11,200
	0.5 - 1	606
	1	1,390
S-2	0 - 0.5	1,780
S-3	0 - 0.5	556
	0.5 - 1	4,730
	0.5 - 1	782
S-4	0 - 0.5	2,400
	0.5 - 1	114
S-5	0.5 - 1	116

Benzene, BTEX and TPH were delineated to OCD standards in Table 1 (19.15.29 NMAC).

Chloride exceeded the OCD surface restoration (19.15.29.13 NMAC Table 1) limit of 600 mg/Kg in the upper 4 feet in the following samples:

Sample	Depth (feet)	Chloride, mg/Kg
S-1	0 - 0.5	2,180
	0.5 - 1	1,590
	1	975
	3	901
	5	983
	10	659
S-3	0.5-1	1,200
	1	973

Chloride was delineated to OCD standard in Table 1 (19.15.29 NMAC). Table 1 presents the laboratory analytical data summary. Figure 2 presents the soil sample locations. Appendix B presents the laboratory reports. Appendix C presents photographs.

3.0 REMEDIATION PLAN

Chevron proposes the following remedial actions:

- Excavate soil to approximately 0.5 feet bgs from an area measuring approximately 450 square feet encompassing sample locations S-2.
- Excavate soil to approximately 1-foot bgs from an area measuring approximately 1,756 square feet encompassing sample locations S-3 and S-4.
- Excavate soil to 4.1 feet bgs from an area measuring approximately 627 square feet encompassing sample location S-1.
- 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 on the pad assuming achievement of OCD remediation levels; and
- Prepare report with photographs for submittal to OCD District 2.

Figure 3 presents the proposed excavation areas

Tables

Table 1
Soil Sample Analytical Data Summary
Monument State
Lea County, New Mexico
North 32 40 21.32", West 103 18 41.76"

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 / 2,500**	**600 / 10,000**
S-1	0 - 0.5	4/24/2020	In-Situ	<0.0222	<0.1554	<139	5,950	5,250	**11,200**	**2,180**
	0.5 - 1	4/24/2020	In-Situ	<0.0230	<0.1610	<28.7	73.3	532	**606**	**1,590**
	1	5/13/2020	In-Situ	<0.00201	<0.00201	<50.0	1,050	343	**1,390**	**975**
	3	5/13/2020	In-Situ	<0.00199	<0.00199	<50.0	78	<50.0	78	**901**
	5	5/13/2020	In-Situ	--	--	<49.9	<49.9	<49.9	<49.9	**983**
	10	5/13/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	**659**
	5	7/24/2020	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	454
	10	7/24/2020	In-Situ	--	--	--	--	--	--	247
	15	7/24/2020	In-Situ	--	--	--	--	--	--	90.3
	20	7/24/2020	In-Situ	--	--	--	--	--	--	144
S-2	0 - 0.5	4/24/2020	In-Situ	<0.0217	<0.1521	<27.2	868	908	**1,780**	109
	0.5 - 1	4/24/2020	In-Situ	<0.0233	<0.1629	<29.1	84.9	<29.1	84.9	88.6
	1	5/13/2020	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	31.2
	3	5/13/2020	In-Situ	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	12.0
	5	5/13/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	15.6
S-3	0 - 0.5	4/24/2020	In-Situ	<0.0222	<0.1554	<27.8	435	122	**556**	516
	0.5 - 1	4/24/2020	In-Situ	<0.0220	<0.1540	31.8	3,840	859	**4,730**	**1,200**
	1	5/14/2020	In-Situ	<0.00199	<0.00199	<49.8	685	96.6	**782**	**973**
	3	5/14/2020	In-Situ	<0.00200	<0.00200	<50.0	86	<50.0	86.2	210
S-4	0 - 0.5	4/24/2020	In-Situ	<0.0215	<0.1505	<26.9	1,880	516	**2,400**	139
	0.5 - 1	4/24/2020	In-Situ	<0.0230	<0.1610	<28.7	71.1	43.3	**114**	195
	1	5/14/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	227

Table 1
Soil Sample Analytical Data Summary
Monument State
Lea County, New Mexico
North 32 40 21.32", West 103 18 41.76"

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 / 2,500**	**600 / 10,000**
	3	5/14/2020	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	187
S-5	0 - 0.5	4/24/2020	In-Situ	<0.0213	<0.1491	<26.6	26.6	29.8	56.4	73.1
	0.5 - 1	4/24/2020	In-Situ	<0.0206	<0.1442	<25.8	81.2	34.5	**116**	158
	1	5/15/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	229
	3	5/15/2020	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	17.1
S-6	0 - 0.5	4/24/2020	In-Situ	<0.0204	<0.1428	<25.5	<25.5	<25.5	<25.5	10.3
	0.5 - 1	4/24/2020	In-Situ	<0.0204	<0.1428	<25.5	<25.5	<25.5	<25.5	10.8
S-7	0 - 0.5	4/24/2020	In-Situ	<0.0204	<0.1428	<25.5	<25.5	<25.5	<25.5	1.82
	0.5 - 1	4/24/2020	In-Situ	<0.0204	<0.1428	<25.5	<25.5	<25.5	<25.5	3.09
S-8	0 - 0.5	4/24/2020	In-Situ	<0.0278	<0.1390	<34.7	<34.7	<34.7	34.7	26.2
	0.5 - 1	4/24/2020	In-Situ	<0.0204	<0.1428	<25.5	<25.5	<25.5	<25.5	14.0
S-9	0.5	5/15/2020	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	195.0
	1	5/15/2020	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	228.0
	3	5/15/2020	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	139.0
S-10	0.5	5/15/2020	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	10.6
	1	5/15/2020	In-Situ	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	8.90

Notes: Analysis performed by Xenco Laboratories
Depth in feet below ground surface (bgs)
mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

Table 1
Soil Sample Analytical Data Summary
Monument State
Lea County, New Mexico
North 32 40 21.32", West 103 18 41.76"

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 / 2,500**	**600 / 10,000**

<: denotes concentration less than analytical method reporting limit

Bold and Highlighted exceeds OCD remediation action limits

Figures

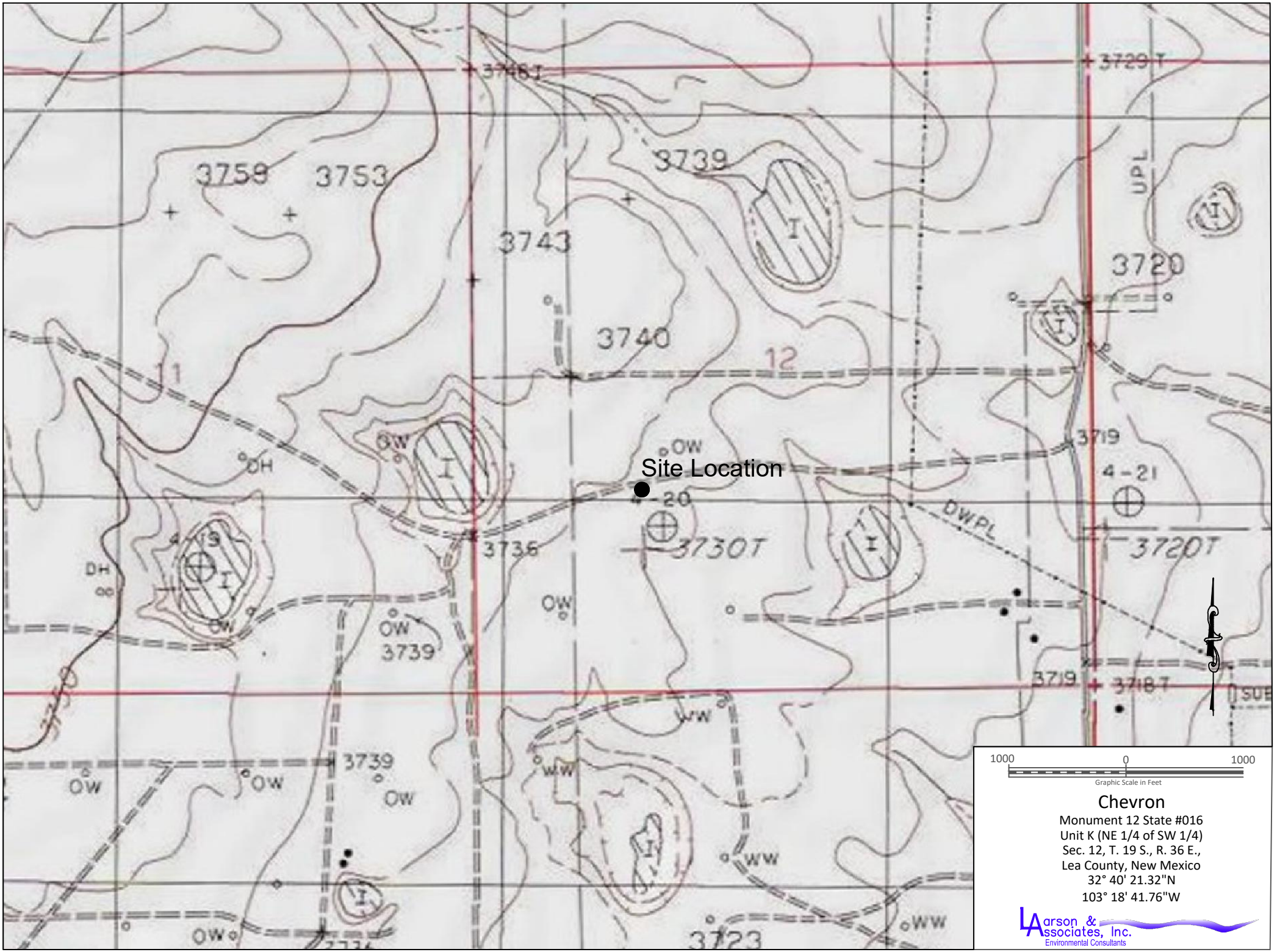

Figure 1 - Topographic Map

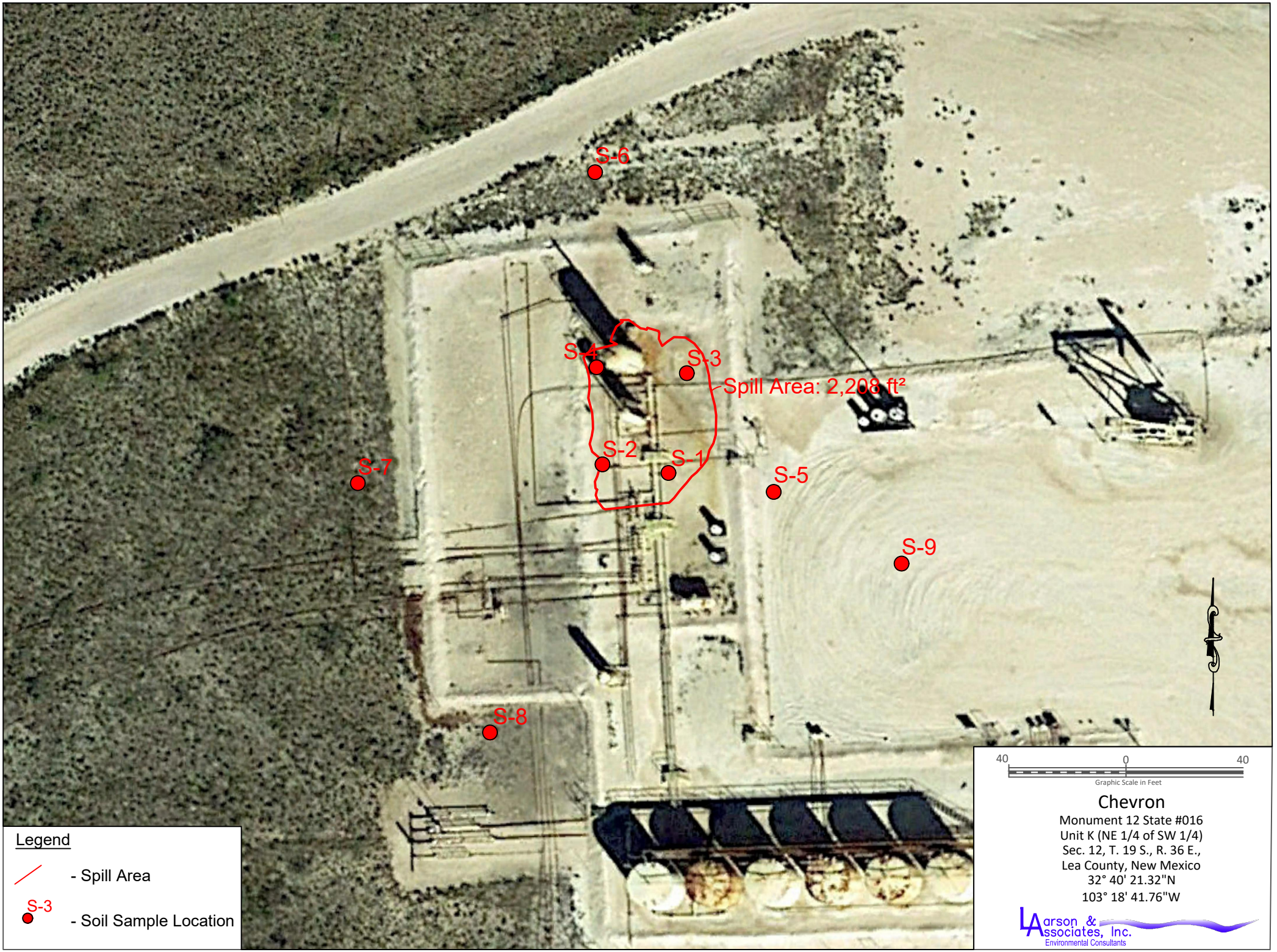

Figure 2 - Aerial Map

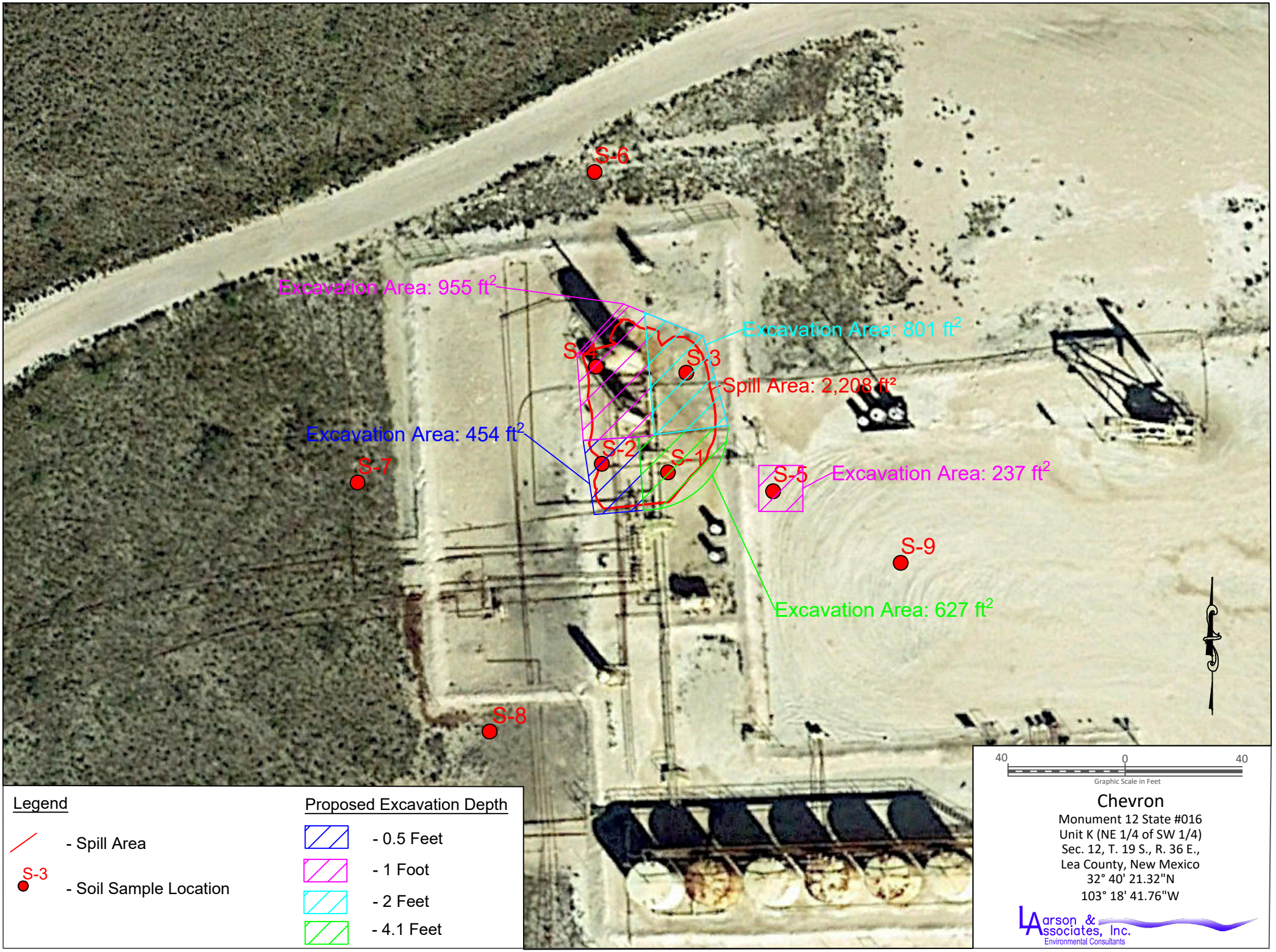

Figure 3 - Aerial Map Showing Proposed Excavation Locations

Appendix A
Initial C-141 and Spill Calculation

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: Chevron USA Inc.	OGRID
Contact Name: Josepha DeLeon	Contact Telephone: 575-263-0424
Contact email: jdxd@chevron.com	Incident # *(assigned by OCD)*
Contact mailing address: 1616 E. Bender Blvd., Hobbs, NM 88240	

Location of Release Source

Latitude 32.67659 Longitude ,-103.3131638
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Monument 12 State #016	Site Type: OIL
Date Release Discovered: 01/24/2020	API# *(if applicable): 30-025-34152*

Unit Letter	Section	Township	Range	County
E	12	19S	26E	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): 0.81 barrels	Volume Recovered (bbls): 0 barrels
☒ Produced Water	Volume Released (bbls): 4.08 barrels	Volume Recovered (bbls): 3 barrels
	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:

Fire tube burner had a leak which resulted in leak and small fire.

Monument Fire Department was called out. After approximately 45 minutes to an hour after initial spraying down heater, the fire department left location. No injuries occurred and battery was secure.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
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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? **19.15.29.7 DEFINITIONS:** **A. "Major release" means:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more;** **(2) an unauthorized release of a volume that:** **(a) results in a fire or is the result of a fire;**

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, by Josepha DeLeon, by email to ENMRD-OCD-District1spills@state.nm.ue and rmann@slo.state.nm.us

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.

Signature: JDeLeon Date: February 6, 2020

Printed Name: Josepha DeLeon Title: Environmental Compliance Specialist

email:jdxd@chevron.com Telephone: 575-263-0424

OCD Only

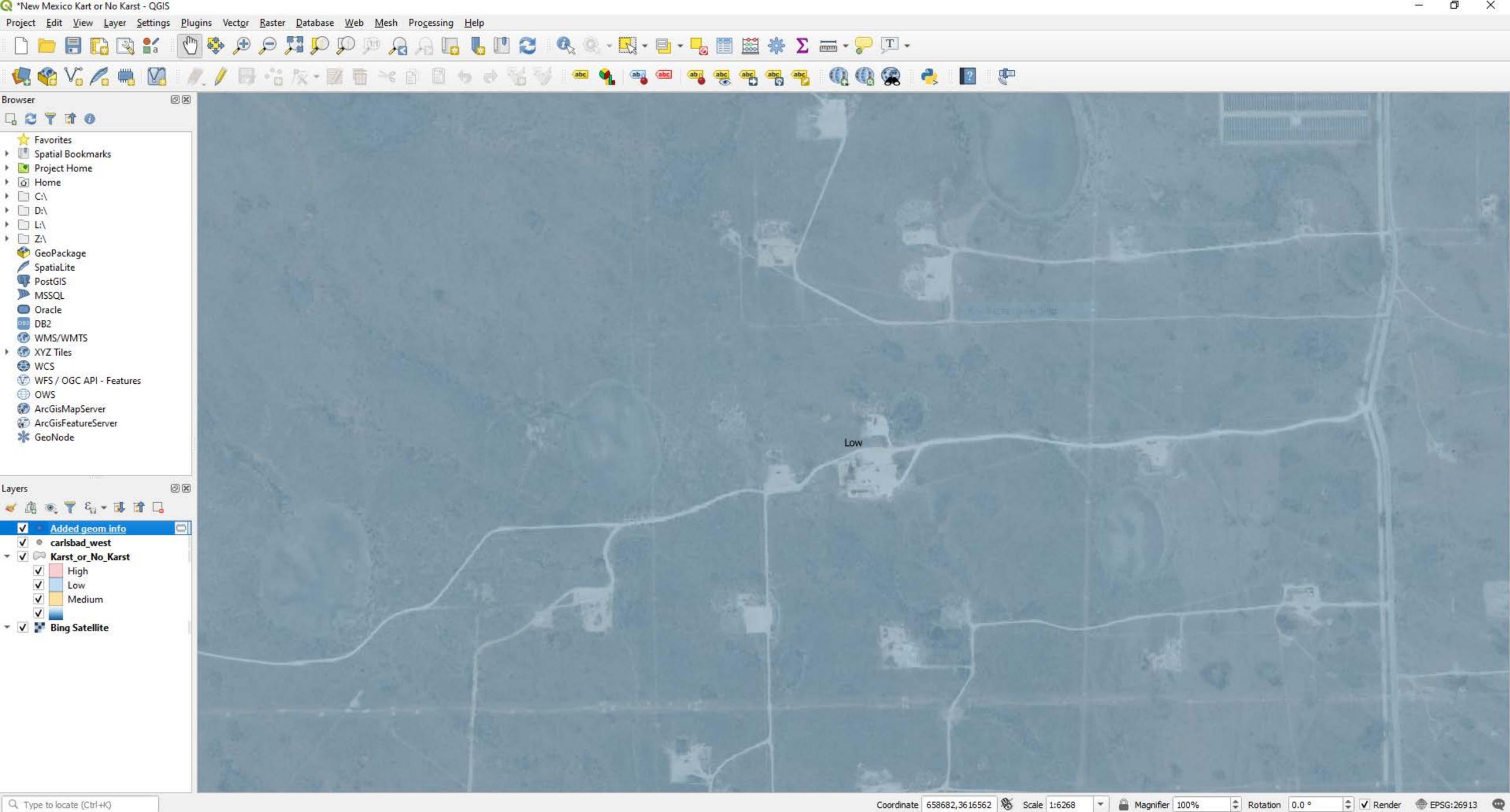
Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Incident Date			1/24/2020		
Incident Time			Start Time	End Time	
			7:00 AM	8:00 AM	
Location			Monument		
Area	Standing Liquid	In Soil	size	Oil Volume	Water Volume
1	x		19x28	0.67	3.28
2		x	20x25	0.06	0.31
3		x	20x20	0.05	0.25
4		x	40	0.03	0.2
5		x	5x11	0	0.04
			Total Fluid	0.81	4.08

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
Type to locate (Ctrl+K)
Coordinate 658682,3616562
Scale 1:6268
Magnifier 100%
Rotation 0.0 °
Render
EPSG:26913

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: Monument 12 State #016

Project Number: 20-0107-11

Location: NM

Lab Order Number: 0D27008

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-18-9

Report Date: 05/05/20

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

Project: Monument 12 State #016
Project Number: 20-0107-11
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-1 (0.5')	0D27008-01	Soil	04/24/20 11:07	04-24-2020 16:33
S-1 (1')	0D27008-02	Soil	04/24/20 11:11	04-24-2020 16:33
S-2 (0.5')	0D27008-03	Soil	04/24/20 11:12	04-24-2020 16:33
S-2 (1')	0D27008-04	Soil	04/24/20 11:17	04-24-2020 16:33
S-3 (0.5')	0D27008-05	Soil	04/24/20 11:15	04-24-2020 16:33
S-3 (1')	0D27008-06	Soil	04/24/20 11:17	04-24-2020 16:33
S-4 (0.5')	0D27008-07	Soil	04/24/20 11:20	04-24-2020 16:33
S-4 (1')	0D27008-08	Soil	04/24/20 11:26	04-24-2020 16:33
S-5 (0.5')	0D27008-09	Soil	04/24/20 10:44	04-24-2020 16:33
S-5 (1')	0D27008-10	Soil	04/24/20 10:54	04-24-2020 16:33
S-6 (0.5')	0D27008-11	Soil	04/24/20 10:53	04-24-2020 16:33
S-6 (1')	0D27008-12	Soil	04/24/20 10:54	04-24-2020 16:33
S-7 (0.5')	0D27008-13	Soil	04/24/20 11:00	04-24-2020 16:33
S-7 (1')	0D27008-14	Soil	04/24/20 11:05	04-24-2020 16:33
S-8 (0.5')	0D27008-15	Soil	04/24/20 11:01	04-24-2020 16:33
S-8 (1')	0D27008-16	Soil	04/24/20 11:02	04-24-2020 16:33

Larson & Associates, Inc.
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Midland TX, 79710

Project: Monument 12 State #016
Project Number: 20-0107-11
Project Manager: Mark Larson

Fax: (432) 687-0456

S-1 (0.5')

0D27008-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0222	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0444	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0222	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0444	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0222	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*95.5 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*94.5 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2180**	5.56	mg/kg dry	5	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	139	mg/kg dry	5	P0D2707	04/27/20	04/28/20	TPH 8015M	
>C12-C28	**5950**	139	mg/kg dry	5	P0D2707	04/27/20	04/28/20	TPH 8015M	
>C28-C35	**5250**	139	mg/kg dry	5	P0D2707	04/27/20	04/28/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*78.8 %*	*70-130*		*P0D2707*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*91.9 %*	*70-130*		*P0D2707*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**11200**	139	mg/kg dry	5	[CALC]	04/27/20	04/28/20	calc	

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

Project: Monument 12 State #016
Project Number: 20-0107-11
Project Manager: Mark Larson

Fax: (432) 687-0456

S-1 (1')

0D27008-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0230	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0460	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0230	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0460	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0230	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*89.3 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*92.0 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1590**	5.75	mg/kg dry	5	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**13.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.7	mg/kg dry	1	P0D2707	04/27/20	04/28/20	TPH 8015M	
>C12-C28	**73.3**	28.7	mg/kg dry	1	P0D2707	04/27/20	04/28/20	TPH 8015M	
>C28-C35	**532**	28.7	mg/kg dry	1	P0D2707	04/27/20	04/28/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*85.7 %*	*70-130*		*P0D2707*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*97.4 %*	*70-130*		*P0D2707*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**606**	28.7	mg/kg dry	1	[CALC]	04/27/20	04/28/20	calc	

Larson & Associates, Inc.	Project: Monument 12 State #016	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0107-11	
Midland TX, 79710	Project Manager: Mark Larson	

S-2 (0.5')

0D27008-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0217	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0435	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0217	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0435	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0217	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*94.7 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*95.6 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**109**	1.09	mg/kg dry	1	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P0D2707	04/27/20	04/28/20	TPH 8015M	
>C12-C28	**868**	27.2	mg/kg dry	1	P0D2707	04/27/20	04/28/20	TPH 8015M	
>C28-C35	**908**	27.2	mg/kg dry	1	P0D2707	04/27/20	04/28/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*88.1 %*	*70-130*		*P0D2707*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*103 %*	*70-130*		*P0D2707*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**1780**	27.2	mg/kg dry	1	[CALC]	04/27/20	04/28/20	calc	

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

Project: Monument 12 State #016
Project Number: 20-0107-11
Project Manager: Mark Larson

Fax: (432) 687-0456

S-2 (1')

0D27008-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0233	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0465	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0233	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0465	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0233	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*89.3 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*92.5 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**88.6**	1.16	mg/kg dry	1	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**14.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	29.1	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C12-C28	**84.9**	29.1	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C28-C35	ND	29.1	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*83.9 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*97.4 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**84.9**	29.1	mg/kg dry	1	[CALC]	04/27/20	04/28/20	calc	

Larson & Associates, Inc.	Project: Monument 12 State #016	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0107-11	
Midland TX, 79710	Project Manager: Mark Larson	

S-3 (0.5')

0D27008-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
BTEX by 8021B									
Benzene	ND	0.0222	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0444	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0222	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0444	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0222	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*88.1 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*91.4 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**516**	1.11	mg/kg dry	1	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C12-C28	**435**	27.8	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C28-C35	**122**	27.8	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*110 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*130 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**556**	27.8	mg/kg dry	1	[CALC]	04/27/20	04/28/20	calc	

S-3 (1')

0D27008-06 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0220	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0440	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0220	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0440	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0220	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*96.0 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*93.4 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1200**	1.10	mg/kg dry	1	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**31.8**	27.5	mg/kg dry	1	P0D2708	04/27/20	05/03/20	TPH 8015M	
>C12-C28	**3840**	27.5	mg/kg dry	1	P0D2708	04/27/20	05/03/20	TPH 8015M	
>C28-C35	**859**	27.5	mg/kg dry	1	P0D2708	04/27/20	05/03/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*75.6 %*	*70-130*		*P0D2708*	*04/27/20*	*05/03/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*79.9 %*	*70-130*		*P0D2708*	*04/27/20*	*05/03/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**4730**	27.5	mg/kg dry	1	[CALC]	04/27/20	05/03/20	calc	

Larson & Associates, Inc.	Project: Monument 12 State #016	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0107-11	
Midland TX, 79710	Project Manager: Mark Larson	

S-4 (0.5')

0D27008-07 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0215	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0430	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0215	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0430	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0215	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*94.7 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*92.6 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**139**	1.08	mg/kg dry	1	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P0D2708	04/27/20	05/01/20	TPH 8015M	
>C12-C28	**1880**	26.9	mg/kg dry	1	P0D2708	04/27/20	05/01/20	TPH 8015M	
>C28-C35	**516**	26.9	mg/kg dry	1	P0D2708	04/27/20	05/01/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*109 %*	*70-130*		*P0D2708*	*04/27/20*	*05/01/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*123 %*	*70-130*		*P0D2708*	*04/27/20*	*05/01/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**2400**	26.9	mg/kg dry	1	[CALC]	04/27/20	05/01/20	calc	

Larson & Associates, Inc.	Project: Monument 12 State #016	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0107-11	
Midland TX, 79710	Project Manager: Mark Larson	

S-4 (1')

0D27008-08 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0230	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0460	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0230	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0460	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0230	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*91.4 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*93.3 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**195**	1.15	mg/kg dry	1	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**13.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.7	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C12-C28	**71.1**	28.7	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C28-C35	**43.3**	28.7	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*85.9 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*100 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**114**	28.7	mg/kg dry	1	[CALC]	04/27/20	04/28/20	calc	

Larson & Associates, Inc.	Project: Monument 12 State #016	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0107-11	
Midland TX, 79710	Project Manager: Mark Larson	

S-5 (0.5')

0D27008-09 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0213	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0426	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0213	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0426	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0213	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*93.2 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*94.9 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**73.1**	1.06	mg/kg dry	1	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C12-C28	**26.6**	26.6	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C28-C35	**29.8**	26.6	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*85.3 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*96.9 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**56.4**	26.6	mg/kg dry	1	[CALC]	04/27/20	04/28/20	calc	

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P.O. Box 50685	Project Number: 20-0107-11	
Midland TX, 79710	Project Manager: Mark Larson	

S-5 (1')

0D27008-10 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0206	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0412	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0206	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0412	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0206	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*94.5 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*94.8 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**158**	1.03	mg/kg dry	1	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C12-C28	**81.2**	25.8	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C28-C35	**34.5**	25.8	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*86.8 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*98.8 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**116**	25.8	mg/kg dry	1	[CALC]	04/27/20	04/28/20	calc	

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P.O. Box 50685	Project Number: 20-0107-11	
Midland TX, 79710	Project Manager: Mark Larson	

S-6 (0.5')

0D27008-11 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0204	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0408	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0204	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0408	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0204	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*93.9 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*90.8 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**10.3**	1.02	mg/kg dry	1	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*82.8 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*94.3 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	04/27/20	04/28/20	calc	

Larson & Associates, Inc.	Project: Monument 12 State #016	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0107-11	
Midland TX, 79710	Project Manager: Mark Larson	

S-6 (1')

0D27008-12 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0204	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0408	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0204	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0408	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0204	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*89.9 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*93.2 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**10.8**	1.02	mg/kg dry	1	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*79.2 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*92.0 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	04/27/20	04/28/20	calc	

Larson & Associates, Inc.	Project: Monument 12 State #016	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0107-11	
Midland TX, 79710	Project Manager: Mark Larson	

S-7 (0.5')

0D27008-13 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0204	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0408	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0204	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0408	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0204	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*93.2 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*90.0 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1.82**	1.02	mg/kg dry	1	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*88.0 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*103 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	04/27/20	04/28/20	calc	

Larson & Associates, Inc.	Project: Monument 12 State #016	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0107-11	
Midland TX, 79710	Project Manager: Mark Larson	

S-7 (1')

0D27008-14 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0204	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0408	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0204	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0408	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0204	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*94.0 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*90.8 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**3.09**	1.02	mg/kg dry	1	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*86.2 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*101 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	04/27/20	04/28/20	calc	

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

Project: Monument 12 State #016
Project Number: 20-0107-11
Project Manager: Mark Larson

Fax: (432) 687-0456

S-8 (0.5')

0D27008-15 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0278	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0556	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0278	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0556	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0278	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*95.3 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*92.7 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**26.2**	1.39	mg/kg dry	1	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**28.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	34.7	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C12-C28	ND	34.7	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C28-C35	ND	34.7	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*82.6 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*97.6 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	34.7	mg/kg dry	1	[CALC]	04/27/20	04/28/20	calc	

Larson & Associates, Inc.	Project: Monument 12 State #016	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 20-0107-11	
Midland TX, 79710	Project Manager: Mark Larson	

S-8 (1')

0D27008-16 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BTEX by 8021B									
Benzene	ND	0.0204	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Toluene	ND	0.0408	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Ethylbenzene	ND	0.0204	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (p/m)	ND	0.0408	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Xylene (o)	ND	0.0204	mg/kg dry	20	P0D2803	04/28/20	04/28/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*94.0 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*95.2 %*	*75-125*		*P0D2803*	*04/28/20*	*04/28/20*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**14.0**	1.02	mg/kg dry	1	P0D2710	04/27/20	04/27/20	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P0D2802	04/28/20	04/28/20	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P0D2708	04/27/20	04/28/20	TPH 8015M	
Surrogate: 1-Chlorooctane		*91.2 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Surrogate: o-Terphenyl		*108 %*	*70-130*		*P0D2708*	*04/27/20*	*04/28/20*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	04/27/20	04/28/20	calc	

BTEX by 8021B - 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 P0D2803 - General Preparation (GC)										
Blank (P0D2803-BLK1)				Prepared & Analyzed: 04/28/20						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	*0.108*		*"*	*0.120*		*90.2*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.102*		*"*	*0.120*		*85.0*	*75-125*			
LCS (P0D2803-BS1)				Prepared & Analyzed: 04/28/20						
Benzene	0.103	0.00100	mg/kg wet	0.100		103	70-130			
Toluene	0.102	0.00200	"	0.100		102	70-130			
Ethylbenzene	0.106	0.00100	"	0.100		106	70-130			
Xylene (p/m)	0.220	0.00200	"	0.200		110	70-130			
Xylene (o)	0.106	0.00100	"	0.100		106	70-130			
Surrogate: 4-Bromofluorobenzene	*0.110*		*"*	*0.120*		*91.6*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.115*		*"*	*0.120*		*95.5*	*75-125*			
LCS Dup (P0D2803-BSD1)				Prepared & Analyzed: 04/28/20						
Benzene	0.107	0.00100	mg/kg wet	0.100		107	70-130	4.35	20	
Toluene	0.108	0.00200	"	0.100		108	70-130	6.35	20	
Ethylbenzene	0.103	0.00100	"	0.100		103	70-130	2.61	20	
Xylene (p/m)	0.231	0.00200	"	0.200		115	70-130	4.69	20	
Xylene (o)	0.114	0.00100	"	0.100		114	70-130	6.89	20	
Surrogate: 1,4-Difluorobenzene	*0.115*		*"*	*0.120*		*95.7*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.110*		*"*	*0.120*		*91.5*	*75-125*			
Calibration Blank (P0D2803-CCB1)				Prepared & Analyzed: 04/28/20						
Benzene	0.00		mg/kg wet							
Toluene	1.36		"							
Ethylbenzene	0.400		"							
Xylene (p/m)	0.590		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.109*		*"*	*0.120*		*90.5*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.113*		*"*	*0.120*		*94.1*	*75-125*			

BTEX by 8021B - 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 P0D2803 - General Preparation (GC)										
Calibration Blank (P0D2803-CCB2)				Prepared & Analyzed: 04/28/20						
Benzene	0.00		mg/kg wet							
Toluene	1.05		"							
Ethylbenzene	0.500		"							
Xylene (p/m)	0.600		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.106*		*"*	*0.120*		*88.2*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.108*		*"*	*0.120*		*90.4*	*75-125*			
Calibration Check (P0D2803-CCV1)				Prepared & Analyzed: 04/28/20						
Benzene	0.104	0.00100	mg/kg wet	0.100		104	80-120			
Toluene	0.103	0.00200	"	0.100		103	80-120			
Ethylbenzene	0.105	0.00100	"	0.100		105	80-120			
Xylene (p/m)	0.217	0.00200	"	0.200		109	80-120			
Xylene (o)	0.105	0.00100	"	0.100		105	80-120			
Surrogate: 1,4-Difluorobenzene	*0.115*		*"*	*0.120*		*95.5*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.108*		*"*	*0.120*		*89.6*	*75-125*			
Calibration Check (P0D2803-CCV2)				Prepared & Analyzed: 04/28/20						
Benzene	0.110	0.00100	mg/kg wet	0.100		110	80-120			
Toluene	0.110	0.00200	"	0.100		110	80-120			
Ethylbenzene	0.110	0.00100	"	0.100		110	80-120			
Xylene (p/m)	0.225	0.00200	"	0.200		113	80-120			
Xylene (o)	0.110	0.00100	"	0.100		110	80-120			
Surrogate: 4-Bromofluorobenzene	*0.110*		*"*	*0.120*		*91.5*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.117*		*"*	*0.120*		*97.5*	*75-125*			
Calibration Check (P0D2803-CCV3)				Prepared & Analyzed: 04/28/20						
Benzene	0.102	0.00100	mg/kg wet	0.100		102	80-120			
Toluene	0.103	0.00200	"	0.100		103	80-120			
Ethylbenzene	0.103	0.00100	"	0.100		103	80-120			
Xylene (p/m)	0.208	0.00200	"	0.200		104	80-120			
Xylene (o)	0.109	0.00100	"	0.100		109	80-120			
Surrogate: 1,4-Difluorobenzene	*0.115*		*"*	*0.120*		*95.6*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.110*		*"*	*0.120*		*91.9*	*75-125*			

BTEX by 8021B - 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 P0D2803 - General Preparation (GC)										
Matrix Spike (P0D2803-MS1)		**Source: 0D27008-16**		Prepared & Analyzed: 04/28/20						
Benzene	2.09	0.0204	mg/kg dry	2.04	ND	102	80-120			
Toluene	2.10	0.0408	"	2.04	0.0161	102	80-120			
Ethylbenzene	2.16	0.0204	"	2.04	ND	106	80-120			
Xylene (p/m)	4.51	0.0408	"	4.08	ND	111	80-120			
Xylene (o)	2.21	0.0204	"	2.04	ND	108	80-120			
Surrogate: 1,4-Difluorobenzene	*0.119*		*"*	*0.122*		*97.1*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.115*		*"*	*0.122*		*93.9*	*75-125*			
Matrix Spike Dup (P0D2803-MSD1)		**Source: 0D27008-16**		Prepared & Analyzed: 04/28/20						
Benzene	2.12	0.0204	mg/kg dry	2.04	ND	104	80-120	1.20	20	
Toluene	2.17	0.0408	"	2.04	0.0161	105	80-120	3.27	20	
Ethylbenzene	2.16	0.0204	"	2.04	ND	106	80-120	0.123	20	
Xylene (p/m)	4.61	0.0408	"	4.08	ND	113	80-120	2.08	20	
Xylene (o)	2.24	0.0204	"	2.04	ND	110	80-120	1.45	20	
Surrogate: 1,4-Difluorobenzene	*0.119*		*"*	*0.122*		*97.0*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.113*		*"*	*0.122*		*92.0*	*75-125*			

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 P0D2710 - * DEFAULT PREP *** **										
Blank (P0D2710-BLK1)				Prepared & Analyzed: 04/27/20						
Chloride	ND	0.100	mg/kg wet							
LCS (P0D2710-BS1)				Prepared & Analyzed: 04/27/20						
Chloride	417	1.00	mg/kg wet	400		104	80-120			
LCS Dup (P0D2710-BSD1)				Prepared & Analyzed: 04/27/20						
Chloride	418	1.00	mg/kg wet	400		105	80-120	0.268	20	
Calibration Blank (P0D2710-CCB1)				Prepared & Analyzed: 04/27/20						
Chloride	0.00		mg/kg wet							
Calibration Blank (P0D2710-CCB2)				Prepared & Analyzed: 04/27/20						
Chloride	0.00		mg/kg wet							
Calibration Check (P0D2710-CCV1)				Prepared & Analyzed: 04/27/20						
Chloride	19.5		mg/kg	20.0		97.4	0-200			
Calibration Check (P0D2710-CCV2)				Prepared & Analyzed: 04/27/20						
Chloride	19.4		mg/kg	20.0		97.0	0-200			
Calibration Check (P0D2710-CCV3)				Prepared: 04/27/20 Analyzed: 04/28/20						
Chloride	19.7		mg/kg	20.0		98.4	0-200			
Matrix Spike (P0D2710-MS1)	**Source: 0D27008-01**			Prepared & Analyzed: 04/27/20						
Chloride	2760	5.56	mg/kg dry	556	2180	104	80-120			
Matrix Spike (P0D2710-MS2)	**Source: 0D27008-11**			Prepared & Analyzed: 04/27/20						
Chloride	517	1.02	mg/kg dry	510	10.3	99.3	80-120			

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 P0D2710 - * DEFAULT PREP *** **										
Matrix Spike Dup (P0D2710-MSD1)		**Source: 0D27008-01**		Prepared & Analyzed: 04/27/20						
Chloride	2790	5.56	mg/kg dry	556	2180	110	80-120	1.08	20	
Matrix Spike Dup (P0D2710-MSD2)		**Source: 0D27008-11**		Prepared & Analyzed: 04/27/20						
Chloride	504	1.02	mg/kg dry	510	10.3	96.8	80-120	2.47	20	
Batch P0D2802 - * DEFAULT PREP *** **										
Blank (P0D2802-BLK1)				Prepared & Analyzed: 04/28/20						
% Moisture	ND	0.1	%							
Duplicate (P0D2802-DUP1)		**Source: 0D27007-01**		Prepared & Analyzed: 04/28/20						
% Moisture	1.0	0.1	%		1.0			0.00	20	
Duplicate (P0D2802-DUP2)		**Source: 0D27009-05**		Prepared & Analyzed: 04/28/20						
% Moisture	5.0	0.1	%		4.0			22.2	20	

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 P0D2707 - TX 1005										
Blank (P0D2707-BLK1)				Prepared: 04/27/20 Analyzed: 04/28/20						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*114*		*"*	*150*		*76.2*	*70-130*			
Surrogate: o-Terphenyl	*61.7*		*"*	*75.0*		*82.3*	*70-130*			
LCS (P0D2707-BS1)				Prepared & Analyzed: 04/27/20						
C6-C12	898	25.0	mg/kg wet	1000		89.8	75-125			
>C12-C28	1030	25.0	"	1000		103	75-125			
Surrogate: 1-Chlorooctane	*118*		*"*	*150*		*78.5*	*70-130*			
Surrogate: o-Terphenyl	*55.6*		*"*	*75.0*		*74.2*	*70-130*			
LCS Dup (P0D2707-BSD1)				Prepared: 04/27/20 Analyzed: 04/28/20						
C6-C12	953	25.0	mg/kg wet	1000		95.3	75-125	5.97	20	
>C12-C28	1080	25.0	"	1000		108	75-125	4.62	20	
Surrogate: 1-Chlorooctane	*128*		*"*	*150*		*85.6*	*70-130*			
Surrogate: o-Terphenyl	*54.0*		*"*	*75.0*		*72.0*	*70-130*			
Calibration Blank (P0D2707-CCB1)				Prepared & Analyzed: 04/27/20						
C6-C12	11.7		mg/kg wet							
>C12-C28	9.22		"							
Surrogate: 1-Chlorooctane	*112*		*"*	*150*		*75.0*	*70-130*			
Surrogate: o-Terphenyl	*60.9*		*"*	*75.0*		*81.1*	*70-130*			
Calibration Blank (P0D2707-CCB2)				Prepared: 04/27/20 Analyzed: 04/28/20						
Surrogate: o-Terphenyl	*55.9*		*mg/kg wet*	*75.0*		*74.6*	*70-130*			
Calibration Check (P0D2707-CCV1)				Prepared & Analyzed: 04/27/20						
C6-C12	531	25.0	mg/kg wet	500		106	85-115			
>C12-C28	559	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	*122*		*"*	*150*		*81.5*	*70-130*			
Surrogate: o-Terphenyl	*59.2*		*"*	*75.0*		*78.9*	*70-130*			

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 P0D2707 - TX 1005										
Calibration Check (P0D2707-CCV2)				Prepared: 04/27/20 Analyzed: 04/28/20						
C6-C12	506	25.0	mg/kg wet	500		101	85-115			
>C12-C28	556	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	*114*		*"*	*150*		*76.0*	*70-130*			
Surrogate: o-Terphenyl	*56.2*		*"*	*75.0*		*75.0*	*70-130*			
Duplicate (P0D2707-DUP1)	**Source: 0D27006-01**			Prepared: 04/27/20 Analyzed: 04/28/20						
C6-C12	11.2	25.0	mg/kg dry		16.1			35.9	20	
>C12-C28	73.0	25.0	"		40.1			58.2	20	
Surrogate: 1-Chlorooctane	*139*		*"*	*150*		*92.5*	*70-130*			
Surrogate: o-Terphenyl	*74.1*		*"*	*75.0*		*98.8*	*70-130*			
Batch P0D2708 - TX 1005										
Blank (P0D2708-BLK1)				Prepared: 04/27/20 Analyzed: 04/28/20						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*105*		*"*	*150*		*70.0*	*70-130*			
Surrogate: o-Terphenyl	*57.4*		*"*	*75.0*		*76.5*	*70-130*			
LCS (P0D2708-BS1)				Prepared: 04/27/20 Analyzed: 04/28/20						
C6-C12	846	25.0	mg/kg wet	1000		84.6	75-125			
>C12-C28	993	25.0	"	1000		99.3	75-125			
Surrogate: 1-Chlorooctane	*113*		*"*	*150*		*75.5*	*70-130*			
Surrogate: o-Terphenyl	*49.8*		*"*	*75.0*		*66.4*	*70-130*			*S-GC*
LCS Dup (P0D2708-BSD1)				Prepared: 04/27/20 Analyzed: 04/28/20						
C6-C12	883	25.0	mg/kg wet	1000		88.3	75-125	4.29	20	
>C12-C28	1050	25.0	"	1000		105	75-125	5.64	20	
Surrogate: 1-Chlorooctane	*119*		*"*	*150*		*79.4*	*70-130*			
Surrogate: o-Terphenyl	*52.2*		*"*	*75.0*		*69.6*	*70-130*			*S-GC*

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 P0D2708 - TX 1005										
Calibration Blank (P0D2708-CCB1)				Prepared: 04/27/20 Analyzed: 04/28/20						
C6-C12	7.94		mg/kg wet							
>C12-C28	9.47		"							
Surrogate: 1-Chlorooctane	*107*		*"*	*150*		*71.2*	*70-130*			
Surrogate: o-Terphenyl	*57.8*		*"*	*75.0*		*77.1*	*70-130*			
Calibration Blank (P0D2708-CCB2)				Prepared: 04/27/20 Analyzed: 04/28/20						
C6-C12	11.3		mg/kg wet							
>C12-C28	10.8		"							
Surrogate: 1-Chlorooctane	*108*		*"*	*150*		*71.8*	*70-130*			
Surrogate: o-Terphenyl	*57.7*		*"*	*75.0*		*76.9*	*70-130*			
Calibration Check (P0D2708-CCV1)				Prepared: 04/27/20 Analyzed: 04/28/20						
C6-C12	511	25.0	mg/kg wet	500		102	85-115			
>C12-C28	548	25.0	"	500		110	85-115			
Surrogate: 1-Chlorooctane	*119*		*"*	*150*		*79.2*	*70-130*			
Surrogate: o-Terphenyl	*57.5*		*"*	*75.0*		*76.7*	*70-130*			
Calibration Check (P0D2708-CCV2)				Prepared: 04/27/20 Analyzed: 04/28/20						
C6-C12	499	25.0	mg/kg wet	500		99.8	85-115			
>C12-C28	557	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	*116*		*"*	*150*		*77.6*	*70-130*			
Surrogate: o-Terphenyl	*55.9*		*"*	*75.0*		*74.5*	*70-130*			
Calibration Check (P0D2708-CCV3)				Prepared: 04/27/20 Analyzed: 04/28/20						
C6-C12	543	25.0	mg/kg wet	500		109	85-115			
>C12-C28	564	25.0	"	500		113	85-115			
Surrogate: 1-Chlorooctane	*124*		*"*	*150*		*82.7*	*70-130*			
Surrogate: o-Terphenyl	*59.8*		*"*	*75.0*		*79.7*	*70-130*			

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

Project: Monument 12 State #016
Project Number: 20-0107-11
Project Manager: Mark Larson

Fax: (432) 687-0456

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
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: 5/5/2020

Brent Barron, Laboratory Director/Technical Director

LB CIC № 1028

CHAIN-OF-CUSTOD

Page 28 of 29

Larson & Associates, Inc.
Environmental Consultants

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

Data Reported to:

DATE: 04/24/20 PAGE 1 OF 2

PO#: LAB WORK ORDER#: 0027008

PROJECT LOCATION OR NAME: Monument 12 State #016

LAI PROJECT #: 20-0107-11 COLLECTOR: EC/DS

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MDT/NM

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015	DIESEL - MOD 8015	OIL - MOD 8015	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	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
S-1 (0.5')	1	4/24/20	1107	S	1				X		X			X	X	X													X	
S-1 (1')	2		1111																											
S-2 (0.5')	3		1112																											
S-2 (1')	4		1117																											
S-3 (0.5')	5		1115																											
S-3 (1')	6		1117																											
S-4 (0.5')	7		1120																											
S-4 (1')	8		1126																											
S-5 (0.5')	9		1044																											
S-5 (1')	10		1054																											
S-6 (0.5')	11		1053																											
S-6 (1')	12		1054																											
S-7 (0.5')	13		1100																											
S-7 (1')	14		1105																											
S-8 (0.5')	15		1101																											

TOTAL 15

RELINQUISHED BY:(Signature) DATE/TIME 4-24-20/1633 RECEIVED BY: (Signature)

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

RELINQUISHED BY:(Signature) DATE/TIME 4.24.20/1633 RECEIVED BY: (Signature)

LABORATORY: PBEL

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

LABORATORY USE ONLY:
RECEIVING TEMP: 4.2-5.2 THERM#: CF1, 12
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

№ 1029

CHAIN-OF-CUSTOD

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

DATE: 04/24/20 PAGE 2 OF 2

PO#: _____ LAB WORK ORDER#: 0D27008

PROJECT LOCATION OR NAME: Monument 12 State #016

LAI PROJECT #: 20-0107-11 COLLECTOR: EC/DS

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MDT/NM

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

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

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☒	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDES ☒ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
S-8 (1')	160	4/24/20	1102	S	1				X		X			X	X	X													X	
TOTAL	1																													

RELINQUISHED BY:(Signature) DATE/TIME 4-24-20/1633 RECEIVED BY: (Signature)

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

RELINQUISHED BY:(Signature) DATE/TIME 4-24-20/1633 RECEIVED BY: (Signature)

LABORATORY: PBEL

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

LABORATORY USE ONLY:
RECEIVING TEMP: 4.2-5.2 THERM#: CF1.42
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

Certificate of Analysis Summary 661822

Larson and Associates, Inc., Midland, TX

Project Name: Monument 12 State 16

Project Id: 20-0107-11
Contact: Mark Larson
Project Location:

Date Received in Lab: Mon 05.18.2020 09:51
Report Date: 05.26.2020 15:54
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	661822-001		661822-002		661822-003		661822-004		661822-005		661822-006	
	Field Id:	S-1 (1')		S-1 (3')		S-1 (5')		S-1 (10')		S-2 (1')		S-2 (3')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	05.13.2020 12:58		05.13.2020 12:54		05.13.2020 13:00		05.13.2020 13:02		05.13.2020 13:03		05.13.2020 13:05	
BTEX by EPA 8021B	***Extracted:***	05.19.2020 12:45		05.19.2020 17:00						05.19.2020 17:00		05.19.2020 17:00	
	Analyzed:	05.20.2020 12:39		05.20.2020 04:53						05.20.2020 05:33		05.20.2020 05:54	
	Units/RL:	mg/kg	RL	mg/kg	RL					mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00199	0.00199					<0.00198	0.00198	<0.00199	0.00199
Toluene		<0.00201	0.00201	<0.00199	0.00199					<0.00198	0.00198	<0.00199	0.00199
Ethylbenzene		<0.00201	0.00201	<0.00199	0.00199					<0.00198	0.00198	<0.00199	0.00199
m,p-Xylenes		<0.00402	0.00402	<0.00398	0.00398					<0.00397	0.00397	<0.00398	0.00398
o-Xylene		<0.00201	0.00201	<0.00199	0.00199					<0.00198	0.00198	<0.00199	0.00199
Total Xylenes		<0.00201	0.00201	<0.00199	0.00199					<0.00198	0.00198	<0.00199	0.00199
Total BTEX		<0.00201	0.00201	<0.00199	0.00199					<0.00198	0.00198	<0.00199	0.00199
Chloride by EPA 300	***Extracted:***	05.18.2020 12:30		05.18.2020 12:30		05.18.2020 12:30		05.18.2020 12:30		05.18.2020 12:30		05.18.2020 12:30	
	Analyzed:	05.18.2020 18:38		05.18.2020 18:43		05.18.2020 18:49		05.18.2020 18:55		05.18.2020 19:12		05.18.2020 19:18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		975	25.2	901	4.96	983	5.00	659	5.05	31.2	4.98	12.0	4.99
TPH by SW8015 Mod	***Extracted:***	05.19.2020 11:00		05.19.2020 11:00		05.19.2020 11:00		05.18.2020 11:00		05.18.2020 11:00		05.18.2020 11:00	
	Analyzed:	05.19.2020 13:12		05.19.2020 12:15		05.19.2020 13:32		05.18.2020 15:25		05.18.2020 15:46		05.18.2020 16:08	
	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	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8
Diesel Range Organics (DRO)		1050	50.0	78.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		343	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8
Total TPH		1390	50.0	78.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9	<49.8	49.8

Erica Morales
Project Manager

Certificate of Analysis Summary 661822

Larson and Associates, Inc., Midland, TX

Project Name: Monument 12 State 16

Project Id: 20-0107-11
Contact: Mark Larson
Project Location:

Date Received in Lab: Mon 05.18.2020 09:51
Report Date: 05.26.2020 15:54
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	661822-007		661822-008		661822-009		661822-010		661822-011		661822-012	
	Field Id:	S-2 (5')		S-4 (1')		S-4 (3')		S-3 (1')		S-3 (3')		S-10 (0.5')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	05.13.2020 13:07		05.14.2020 11:19		05.14.2020 11:21		05.14.2020 12:02		05.14.2020 12:04		05.15.2020 10:30	
BTEX by EPA 8021B	***Extracted:***			05.19.2020 17:00		05.19.2020 17:00		05.19.2020 17:00		05.19.2020 17:00		05.19.2020 17:00	
	Analyzed:			05.20.2020 06:34		05.20.2020 06:54		05.20.2020 07:14		05.20.2020 07:34		05.20.2020 07:54	
	Units/RL:			mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene				<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Toluene				<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene				<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes				<0.00401	0.00401	<0.00396	0.00396	<0.00398	0.00398	<0.00399	0.00399	<0.00401	0.00401
o-Xylene				<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes				<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Total BTEX				<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	05.18.2020 12:30		05.18.2020 12:30		05.18.2020 12:30		05.18.2020 12:30		05.18.2020 12:30		05.18.2020 12:30	
	Analyzed:	05.18.2020 19:23		05.18.2020 19:29		05.18.2020 19:35		05.18.2020 19:41		05.18.2020 19:58		05.18.2020 20:03	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		15.6	5.05	227	5.05	187	5.05	973 X	24.9	210	5.00	10.6	5.04
TPH by SW8015 Mod	***Extracted:***	05.18.2020 11:00		05.18.2020 11:00		05.18.2020 11:00		05.18.2020 11:00		05.18.2020 11:00		05.18.2020 11:00	
	Analyzed:	05.18.2020 16:30		05.18.2020 16:52		05.18.2020 17:35		05.18.2020 17:57		05.18.2020 18:19		05.18.2020 18:41	
	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	<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	685	49.8	86.2	50.0	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	96.6	49.8	<50.0	50.0	<49.9	49.9
Total TPH		<50.0	50.0	<50.0	50.0	<49.9	49.9	782	49.8	86.2	50.0	<49.9	49.9

Erica Morales
Project Manager

Certificate of Analysis Summary 661822

Larson and Associates, Inc., Midland, TX

Project Name: Monument 12 State 16

Project Id: 20-0107-11
Contact: Mark Larson
Project Location:

Date Received in Lab: Mon 05.18.2020 09:51
Report Date: 05.26.2020 15:54
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	661822-013		661822-014		661822-015		661822-016		661822-017		661822-018	
	Field Id:	S-10 (1')		S-5(1')		S-5 (3')		S-9 (0.5')		S-9 (1')		S-9(3')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	05.15.2020 10:32		05.15.2020 11:01		05.15.2020 11:02		05.15.2020 10:50		05.15.2020 10:51		05.15.2020 10:52	
BTEX by EPA 8021B	***Extracted:***	05.19.2020 17:00		05.19.2020 17:00		05.19.2020 17:00		05.19.2020 17:00		05.19.2020 17:00		05.19.2020 17:00	
	Analyzed:	05.20.2020 09:13		05.20.2020 09:33		05.20.2020 09:53		05.20.2020 10:13		05.20.2020 10:34		05.20.2020 10:54	
	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	<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198
m,p-Xylenes		<0.00402	0.00402	<0.00400	0.00400	<0.00398	0.00398	<0.00396	0.00396	<0.00397	0.00397	<0.00396	0.00396
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198	<0.00198	0.00198
Chloride by EPA 300	***Extracted:***	05.18.2020 12:30		05.18.2020 12:30		05.18.2020 12:30		05.18.2020 12:30		05.18.2020 12:30		05.18.2020 12:30	
	Analyzed:	05.18.2020 20:21		05.18.2020 20:26		05.18.2020 20:32		05.18.2020 20:38		05.18.2020 20:44		05.18.2020 20:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		8.90	4.95	229	5.04	17.1	4.97	195	4.95	228	5.01	139	4.96
TPH by SW8015 Mod	***Extracted:***	05.18.2020 11:00		05.18.2020 11:00		05.18.2020 11:00		05.18.2020 11:00		05.18.2020 11:00		05.18.2020 11:00	
	Analyzed:	05.18.2020 19:02		05.18.2020 19:24		05.18.2020 19:46		05.18.2020 20:07		05.18.2020 20:29		05.18.2020 20:50	
	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	<49.9	49.9	<50.0	50.0	<50.0	50.0	<50.0	50.0
Diesel Range Organics (DRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0	<50.0	50.0
Total TPH		<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0	<50.0	50.0

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

Erica Morales
Project Manager

Analytical Report 661822

for

Larson and Associates, Inc.

Project Manager: Mark Larson

Monument 12 State 16

20-0107-11

05.26.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-6)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

05.26.2020

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

Reference: XENCO Report No(s): **661822**
Monument 12 State 16
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 XENCO Report Number(s) 661822. 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 XENCO Laboratories. 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. 661822 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 XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Erica Morales
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-1 (1')	S	05.13.2020 12:58		661822-001
S-1 (3')	S	05.13.2020 12:54		661822-002
S-1 (5')	S	05.13.2020 13:00		661822-003
S-1 (10')	S	05.13.2020 13:02		661822-004
S-2 (1')	S	05.13.2020 13:03		661822-005
S-2 (3')	S	05.13.2020 13:05		661822-006
S-2 (5')	S	05.13.2020 13:07		661822-007
S-4 (1')	S	05.14.2020 11:19		661822-008
S-4 (3')	S	05.14.2020 11:21		661822-009
S-3 (1')	S	05.14.2020 12:02		661822-010
S-3 (3')	S	05.14.2020 12:04		661822-011
S-10 (0.5')	S	05.15.2020 10:30		661822-012
S-10 (1')	S	05.15.2020 10:32		661822-013
S-5(1')	S	05.15.2020 11:01		661822-014
S-5 (3')	S	05.15.2020 11:02		661822-015
S-9 (0.5')	S	05.15.2020 10:50		661822-016
S-9 (1')	S	05.15.2020 10:51		661822-017
S-9(3')	S	05.15.2020 10:52		661822-018

CASE NARRATIVE

Client Name: Larson and Associates, Inc.

Project Name: Monument 12 State 16

Project ID: *20-0107-11*
Work Order Number(s): *661822*

Report Date: *05.26.2020*
Date Received: *05.18.2020*

Sample receipt non conformances and comments:

5/19/2020 Report all ranges of TPH for all samples. BTEX is not to be reported on samples 003, 004 and 007 per Robert Nelson (email). HT

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3126370 Chloride by EPA 300

Lab Sample ID 661822-010 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: 661822-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3126484 TPH by SW8015 Mod

Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 661822-002 SD.

Batch: LBA-3126518 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Samples affected are: 7703705-1-BKS,7703705-1-BSD,661822-002 S,661822-002 SD,661822-011.

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-1 (1')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-001	Date Collected:	05.13.2020 12:58		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**975**	25.2	mg/kg	05.18.2020 18:38		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.19.2020 11:00	Basis:	Wet Weight
Seq Number:	3126484				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.19.2020 13:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1050**	50.0	mg/kg	05.19.2020 13:12		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**343**	50.0	mg/kg	05.19.2020 13:12		1
Total TPH	PHC635	**1390**	50.0	mg/kg	05.19.2020 13:12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	05.19.2020 13:12	
o-Terphenyl	84-15-1	129	%	70-130	05.19.2020 13:12	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-1 (1')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-001	Date Collected:	05.13.2020 12:58		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	05.19.2020 12:45	Basis:	Wet Weight
Seq Number:	3126450				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.20.2020 12:39	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.20.2020 12:39	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.20.2020 12:39	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.20.2020 12:39	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.20.2020 12:39	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.20.2020 12:39	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.20.2020 12:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.20.2020 12:39	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.20.2020 12:39	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-1 (3')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-002	Date Collected:	05.13.2020 12:54		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**901**	4.96	mg/kg	05.18.2020 18:43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.19.2020 11:00	Basis:	Wet Weight
Seq Number:	3126484				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.19.2020 12:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	**78.0**	50.0	mg/kg	05.19.2020 12:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.19.2020 12:15	U	1
Total TPH	PHC635	**78.0**	50.0	mg/kg	05.19.2020 12:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-130	05.19.2020 12:15	
o-Terphenyl	84-15-1	128	%	70-130	05.19.2020 12:15	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-1 (3')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-002	Date Collected:	05.13.2020 12:54		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	05.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3126518				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.20.2020 04:53	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.20.2020 04:53	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.20.2020 04:53	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.20.2020 04:53	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.20.2020 04:53	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.20.2020 04:53	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.20.2020 04:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	05.20.2020 04:53	
1,4-Difluorobenzene	540-36-3	97	%	70-130	05.20.2020 04:53	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-1 (5')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-003	Date Collected:	05.13.2020 13:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**983**	5.00	mg/kg	05.18.2020 18:49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.19.2020 11:00	Basis:	Wet Weight
Seq Number:	3126484				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.19.2020 13:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.19.2020 13:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.19.2020 13:32	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.19.2020 13:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	05.19.2020 13:32	
o-Terphenyl	84-15-1	105	%	70-130	05.19.2020 13:32	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-1 (10')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-004	Date Collected:	05.13.2020 13:02		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**659**	5.05	mg/kg	05.18.2020 18:55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.18.2020 11:00	Basis:	Wet Weight
Seq Number:	3126341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.18.2020 15:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.18.2020 15:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.18.2020 15:25	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.18.2020 15:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	05.18.2020 15:25	
o-Terphenyl	84-15-1	106	%	70-130	05.18.2020 15:25	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-2 (1')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-005	Date Collected:	05.13.2020 13:03		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**31.2**	4.98	mg/kg	05.18.2020 19:12		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.18.2020 11:00	Basis:	Wet Weight
Seq Number:	3126341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.18.2020 15:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.18.2020 15:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.18.2020 15:46	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.18.2020 15:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	05.18.2020 15:46	
o-Terphenyl	84-15-1	108	%	70-130	05.18.2020 15:46	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-2 (1')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-005	Date Collected:	05.13.2020 13:03		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	05.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3126518				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.20.2020 05:33	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.20.2020 05:33	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.20.2020 05:33	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.20.2020 05:33	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.20.2020 05:33	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.20.2020 05:33	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.20.2020 05:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	129	%	70-130	05.20.2020 05:33	
1,4-Difluorobenzene	540-36-3	109	%	70-130	05.20.2020 05:33	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-2 (3')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-006	Date Collected:	05.13.2020 13:05		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.0**	4.99	mg/kg	05.18.2020 19:18		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.18.2020 11:00	Basis:	Wet Weight
Seq Number:	3126341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.18.2020 16:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.18.2020 16:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.18.2020 16:08	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.18.2020 16:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	05.18.2020 16:08	
o-Terphenyl	84-15-1	104	%	70-130	05.18.2020 16:08	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-2 (3')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-006	Date Collected:	05.13.2020 13:05		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	05.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3126518				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.20.2020 05:54	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.20.2020 05:54	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.20.2020 05:54	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.20.2020 05:54	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.20.2020 05:54	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.20.2020 05:54	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.20.2020 05:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	123	%	70-130	05.20.2020 05:54	
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.20.2020 05:54	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-2 (5')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-007	Date Collected:	05.13.2020 13:07		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15.6**	5.05	mg/kg	05.18.2020 19:23		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.18.2020 11:00	Basis:	Wet Weight
Seq Number:	3126341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.18.2020 16:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.18.2020 16:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.18.2020 16:30	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.18.2020 16:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	05.18.2020 16:30	
o-Terphenyl	84-15-1	104	%	70-130	05.18.2020 16:30	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-4 (1')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-008	Date Collected:	05.14.2020 11:19		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**227**	5.05	mg/kg	05.18.2020 19:29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.18.2020 11:00	Basis:	Wet Weight
Seq Number:	3126341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.18.2020 16:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.18.2020 16:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.18.2020 16:52	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.18.2020 16:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	05.18.2020 16:52	
o-Terphenyl	84-15-1	102	%	70-130	05.18.2020 16:52	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-4 (1')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-008	Date Collected:	05.14.2020 11:19		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	05.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3126518				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.20.2020 06:34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.20.2020 06:34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.20.2020 06:34	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.20.2020 06:34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.20.2020 06:34	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.20.2020 06:34	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.20.2020 06:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.20.2020 06:34	
4-Bromofluorobenzene	460-00-4	112	%	70-130	05.20.2020 06:34	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-4 (3')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-009	Date Collected:	05.14.2020 11:21		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**187**	5.05	mg/kg	05.18.2020 19:35		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.18.2020 11:00	Basis:	Wet Weight
Seq Number:	3126341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.18.2020 17:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.18.2020 17:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.18.2020 17:35	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.18.2020 17:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	05.18.2020 17:35	
o-Terphenyl	84-15-1	108	%	70-130	05.18.2020 17:35	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-4 (3')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-009	Date Collected:	05.14.2020 11:21		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	05.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3126518				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.20.2020 06:54	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.20.2020 06:54	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.20.2020 06:54	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.20.2020 06:54	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.20.2020 06:54	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.20.2020 06:54	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.20.2020 06:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	05.20.2020 06:54	
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.20.2020 06:54	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-3 (1')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-010	Date Collected:	05.14.2020 12:02		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**973**	24.9	mg/kg	05.18.2020 19:41	X	5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.18.2020 11:00	Basis:	Wet Weight
Seq Number:	3126341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.18.2020 17:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	**685**	49.8	mg/kg	05.18.2020 17:57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**96.6**	49.8	mg/kg	05.18.2020 17:57		1
Total TPH	PHC635	**782**	49.8	mg/kg	05.18.2020 17:57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	05.18.2020 17:57	
o-Terphenyl	84-15-1	113	%	70-130	05.18.2020 17:57	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-3 (1')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-010	Date Collected:	05.14.2020 12:02		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	05.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3126518				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.20.2020 07:14	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.20.2020 07:14	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.20.2020 07:14	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.20.2020 07:14	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.20.2020 07:14	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.20.2020 07:14	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.20.2020 07:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	05.20.2020 07:14	
4-Bromofluorobenzene	460-00-4	121	%	70-130	05.20.2020 07:14	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-3 (3')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-011	Date Collected:	05.14.2020 12:04		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**210**	5.00	mg/kg	05.18.2020 19:58		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.18.2020 11:00	Basis:	Wet Weight
Seq Number:	3126341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.18.2020 18:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	**86.2**	50.0	mg/kg	05.18.2020 18:19		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.18.2020 18:19	U	1
Total TPH	PHC635	**86.2**	50.0	mg/kg	05.18.2020 18:19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	05.18.2020 18:19	
o-Terphenyl	84-15-1	107	%	70-130	05.18.2020 18:19	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-3 (3')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-011	Date Collected:	05.14.2020 12:04		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	05.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3126518				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.20.2020 07:34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.20.2020 07:34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.20.2020 07:34	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.20.2020 07:34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.20.2020 07:34	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.20.2020 07:34	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.20.2020 07:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	137	%	70-130	05.20.2020 07:34	**
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.20.2020 07:34	

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Date/ Time Received: 07.27.2020 08.56.00 AM

Work Order #: 668223

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: 07.27.2020

Brianna Teel

Checklist reviewed by: Holly Taylor Date: 07.28.2020

Holly Taylor

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-10 (0.5')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-012	Date Collected:	05.15.2020 10:30		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.6**	5.04	mg/kg	05.18.2020 20:03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.18.2020 11:00	Basis:	Wet Weight
Seq Number:	3126341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.18.2020 18:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.18.2020 18:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.18.2020 18:41	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.18.2020 18:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	05.18.2020 18:41	
o-Terphenyl	84-15-1	102	%	70-130	05.18.2020 18:41	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-10 (0.5')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-012	Date Collected:	05.15.2020 10:30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	05.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3126518				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.20.2020 07:54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.20.2020 07:54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.20.2020 07:54	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.20.2020 07:54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.20.2020 07:54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.20.2020 07:54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.20.2020 07:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.20.2020 07:54	
4-Bromofluorobenzene	460-00-4	117	%	70-130	05.20.2020 07:54	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-10 (1')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-013	Date Collected:	05.15.2020 10:32		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.90**	4.95	mg/kg	05.18.2020 20:21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.18.2020 11:00	Basis:	Wet Weight
Seq Number:	3126341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.18.2020 19:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.18.2020 19:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.18.2020 19:02	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.18.2020 19:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	05.18.2020 19:02	
o-Terphenyl	84-15-1	106	%	70-130	05.18.2020 19:02	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-10 (1')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-013	Date Collected:	05.15.2020 10:32		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	05.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3126518				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.20.2020 09:13	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.20.2020 09:13	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.20.2020 09:13	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.20.2020 09:13	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.20.2020 09:13	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.20.2020 09:13	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.20.2020 09:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	05.20.2020 09:13	
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.20.2020 09:13	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-5(1')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-014	Date Collected:	05.15.2020 11:01		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**229**	5.04	mg/kg	05.18.2020 20:26		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.18.2020 11:00	Basis:	Wet Weight
Seq Number:	3126341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.18.2020 19:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.18.2020 19:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.18.2020 19:24	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.18.2020 19:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	05.18.2020 19:24	
o-Terphenyl	84-15-1	105	%	70-130	05.18.2020 19:24	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-5(1')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-014	Date Collected:	05.15.2020 11:01		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	05.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3126518				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.20.2020 09:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.20.2020 09:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.20.2020 09:33	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.20.2020 09:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.20.2020 09:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.20.2020 09:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.20.2020 09:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	05.20.2020 09:33	
4-Bromofluorobenzene	460-00-4	114	%	70-130	05.20.2020 09:33	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-5 (3')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-015	Date Collected:	05.15.2020 11:02		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**17.1**	4.97	mg/kg	05.18.2020 20:32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.18.2020 11:00	Basis:	Wet Weight
Seq Number:	3126341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.18.2020 19:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.18.2020 19:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.18.2020 19:46	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.18.2020 19:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	05.18.2020 19:46	
o-Terphenyl	84-15-1	104	%	70-130	05.18.2020 19:46	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-5 (3')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-015	Date Collected:	05.15.2020 11:02		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	05.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3126518				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.20.2020 09:53	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.20.2020 09:53	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.20.2020 09:53	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.20.2020 09:53	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.20.2020 09:53	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.20.2020 09:53	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.20.2020 09:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	05.20.2020 09:53	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.20.2020 09:53	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-9 (0.5')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-016	Date Collected:	05.15.2020 10:50		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**195**	4.95	mg/kg	05.18.2020 20:38		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.18.2020 11:00	Basis:	Wet Weight
Seq Number:	3126341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.18.2020 20:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.18.2020 20:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.18.2020 20:07	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.18.2020 20:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	05.18.2020 20:07	
o-Terphenyl	84-15-1	98	%	70-130	05.18.2020 20:07	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-9 (0.5')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-016	Date Collected:	05.15.2020 10:50		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	05.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3126518				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.20.2020 10:13	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.20.2020 10:13	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.20.2020 10:13	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.20.2020 10:13	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.20.2020 10:13	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.20.2020 10:13	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.20.2020 10:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	05.20.2020 10:13	
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.20.2020 10:13	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-9 (1')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-017	Date Collected:	05.15.2020 10:51		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**228**	5.01	mg/kg	05.18.2020 20:44		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.18.2020 11:00	Basis:	Wet Weight
Seq Number:	3126341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.18.2020 20:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.18.2020 20:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.18.2020 20:29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.18.2020 20:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	05.18.2020 20:29	
o-Terphenyl	84-15-1	101	%	70-130	05.18.2020 20:29	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-9 (1')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-017	Date Collected:	05.15.2020 10:51		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	05.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3126518				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.20.2020 10:34	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.20.2020 10:34	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.20.2020 10:34	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.20.2020 10:34	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.20.2020 10:34	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.20.2020 10:34	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.20.2020 10:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.20.2020 10:34	
1,4-Difluorobenzene	540-36-3	98	%	70-130	05.20.2020 10:34	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-9(3')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-018	Date Collected:	05.15.2020 10:52		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	05.18.2020 12:30	Basis:	Wet Weight
Seq Number:	3126370				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**139**	4.96	mg/kg	05.18.2020 20:49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	05.18.2020 11:00	Basis:	Wet Weight
Seq Number:	3126341				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.18.2020 20:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.18.2020 20:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.18.2020 20:50	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.18.2020 20:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	05.18.2020 20:50	
o-Terphenyl	84-15-1	106	%	70-130	05.18.2020 20:50	

Certificate of Analytical Results 661822

Larson and Associates, Inc., Midland, TX

Monument 12 State 16

Sample Id:	**S-9(3')**	Matrix:	Soil	Date Received:	05.18.2020 09:51
Lab Sample Id:	661822-018	Date Collected:	05.15.2020 10:52		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	05.19.2020 17:00	Basis:	Wet Weight
Seq Number:	3126518				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.20.2020 10:54	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.20.2020 10:54	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.20.2020 10:54	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.20.2020 10:54	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.20.2020 10:54	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.20.2020 10:54	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.20.2020 10:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	05.20.2020 10:54	
1,4-Difluorobenzene	540-36-3	108	%	70-130	05.20.2020 10:54	

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

QC Summary 661822

Larson and Associates, Inc.

Monument 12 State 16

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3126370 Matrix: Solid Date Prep: 05.18.2020
MB Sample Id: 7703514-1-BLK LCS Sample Id: 7703514-1-BKS LCSD Sample Id: 7703514-1-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	244	98	239	96	90-110	2	20	mg/kg	05.18.2020 18:09	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3126370 Matrix: Soil Date Prep: 05.18.2020
Parent Sample Id: 661621-007 MS Sample Id: 661621-007 S MSD Sample Id: 661621-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2560	1250	3870	105	3750	95	90-110	3	20	mg/kg	05.18.2020 18:26	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3126370 Matrix: Soil Date Prep: 05.18.2020
Parent Sample Id: 661822-010 MS Sample Id: 661822-010 S MSD Sample Id: 661822-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	973	1250	2440	117	2400	114	90-110	2	20	mg/kg	05.18.2020 19:46	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3126341 Matrix: Solid Date Prep: 05.18.2020
MB Sample Id: 7703507-1-BLK LCS Sample Id: 7703507-1-BKS LCSD Sample Id: 7703507-1-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	865	87	966	97	70-130	11	20	mg/kg	05.18.2020 12:11	
Diesel Range Organics (DRO)	<50.0	1000	847	85	973	97	70-130	14	20	mg/kg	05.18.2020 12:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		84		96		70-130	%	05.18.2020 12:11
o-Terphenyl	94		84		97		70-130	%	05.18.2020 12:11

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3126484 Matrix: Solid Date Prep: 05.19.2020
MB Sample Id: 7703661-1-BLK LCS Sample Id: 7703661-1-BKS LCSD Sample Id: 7703661-1-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	1100	110	1000	100	70-130	10	20	mg/kg	05.19.2020 11:21	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	948	95	70-130	9	20	mg/kg	05.19.2020 11:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		129		120		70-130	%	05.19.2020 11:21
o-Terphenyl	109		125		111		70-130	%	05.19.2020 11:21

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

QC Summary 661822

Larson and Associates, Inc.

Monument 12 State 16

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3126341 Matrix: Solid Date Prep: 05.18.2020
MB Sample Id: 7703507-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.18.2020 11:49	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3126484 Matrix: Solid Date Prep: 05.19.2020
MB Sample Id: 7703661-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.19.2020 11:02	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3126341 Matrix: Soil Date Prep: 05.18.2020
Parent Sample Id: 661817-021 MS Sample Id: 661817-021 S MSD Sample Id: 661817-021 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	871	87	879	88	70-130	1	20	mg/kg	05.18.2020 13:15	
Diesel Range Organics (DRO)	<49.8	996	875	88	904	90	70-130	3	20	mg/kg	05.18.2020 13:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		93		70-130	%	05.18.2020 13:15
o-Terphenyl	92		96		70-130	%	05.18.2020 13:15

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3126484 Matrix: Soil Date Prep: 05.19.2020
Parent Sample Id: 661822-002 MS Sample Id: 661822-002 S MSD Sample Id: 661822-002 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	997	1050	105	1080	108	70-130	3	20	mg/kg	05.19.2020 12:34	
Diesel Range Organics (DRO)	78.0	997	1050	97	1020	95	70-130	3	20	mg/kg	05.19.2020 12:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		135	**	70-130	%	05.19.2020 12:34
o-Terphenyl	118		130		70-130	%	05.19.2020 12:34

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

QC Summary 661822

Larson and Associates, Inc.

Monument 12 State 16

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3126450 Matrix: Solid Date Prep: 05.19.2020
MB Sample Id: 7703697-1-BLK LCS Sample Id: 7703697-1-BKS LCSD Sample Id: 7703697-1-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	0.0978	98	0.0989	99	70-130	1	35	mg/kg	05.20.2020 01:27	
Toluene	<0.00200	0.100	0.0970	97	0.101	101	70-130	4	35	mg/kg	05.20.2020 01:27	
Ethylbenzene	<0.00200	0.100	0.0885	89	0.0923	92	70-130	4	35	mg/kg	05.20.2020 01:27	
m,p-Xylenes	<0.00400	0.200	0.178	89	0.187	94	70-130	5	35	mg/kg	05.20.2020 01:27	
o-Xylene	<0.00200	0.100	0.0879	88	0.0927	93	70-130	5	35	mg/kg	05.20.2020 01:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		106		104		70-130	%	05.20.2020 01:27
4-Bromofluorobenzene	95		99		102		70-130	%	05.20.2020 01:27

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3126518 Matrix: Solid Date Prep: 05.19.2020
MB Sample Id: 7703705-1-BLK LCS Sample Id: 7703705-1-BKS LCSD Sample Id: 7703705-1-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	0.0956	96	0.0993	99	70-130	4	35	mg/kg	05.20.2020 02:35	
Toluene	<0.00200	0.100	0.0985	99	0.101	101	70-130	3	35	mg/kg	05.20.2020 02:35	
Ethylbenzene	<0.00200	0.100	0.104	104	0.110	110	70-130	6	35	mg/kg	05.20.2020 02:35	
m,p-Xylenes	<0.00400	0.200	0.197	99	0.213	107	70-130	8	35	mg/kg	05.20.2020 02:35	
o-Xylene	<0.00200	0.100	0.0994	99	0.108	108	70-130	8	35	mg/kg	05.20.2020 02:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	84		104		108		70-130	%	05.20.2020 02:35
4-Bromofluorobenzene	70		147	**	153	**	70-130	%	05.20.2020 02:35

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3126450 Matrix: Soil Date Prep: 05.19.2020
Parent Sample Id: 661705-031 MS Sample Id: 661705-031 S MSD Sample Id: 661705-031 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	0.0305	31	0.0191	19	70-130	46	35	mg/kg	05.20.2020 02:07	XF
Toluene	<0.00200	0.0998	0.0303	30	0.0231	23	70-130	27	35	mg/kg	05.20.2020 02:07	X
Ethylbenzene	<0.00200	0.0998	0.0322	32	0.0270	27	70-130	18	35	mg/kg	05.20.2020 02:07	X
m,p-Xylenes	<0.00399	0.200	0.0711	36	0.0524	26	70-130	30	35	mg/kg	05.20.2020 02:07	X
o-Xylene	<0.00200	0.0998	0.0388	39	0.0297	30	70-130	27	35	mg/kg	05.20.2020 02:07	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		70-130	%	05.20.2020 02:07
4-Bromofluorobenzene	107		77		70-130	%	05.20.2020 02:07

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

QC Summary 661822

Larson and Associates, Inc.

Monument 12 State 16

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3126518 Matrix: Soil Date Prep: 05.19.2020

Parent Sample Id: 661822-002 MS Sample Id: 661822-002 S MSD Sample Id: 661822-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0885	89	0.0944	95	70-130	6	35	mg/kg	05.20.2020 03:15	
Toluene	<0.00198	0.0992	0.0910	92	0.0968	97	70-130	6	35	mg/kg	05.20.2020 03:15	
Ethylbenzene	<0.00198	0.0992	0.0930	94	0.0985	99	70-130	6	35	mg/kg	05.20.2020 03:15	
m,p-Xylenes	<0.00397	0.198	0.174	88	0.182	91	70-130	4	35	mg/kg	05.20.2020 03:15	
o-Xylene	<0.00198	0.0992	0.0901	91	0.0953	95	70-130	6	35	mg/kg	05.20.2020 03:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		113		70-130	%	05.20.2020 03:15
4-Bromofluorobenzene	151	**	161	**	70-130	%	05.20.2020 03:15

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

№ 1008

Ww1802

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants

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

Data Reported to:

DATE: 5/18/20 PAGE 1 OF 2

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: MONUMENT 12 STATE 16

LAI PROJECT #: 20-0107-11 COLLECTOR: DS/EC

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

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	HNO₃	H₂SO₄ ☐ NaOH ☐	ICE	UNPRESSERVED	BTEX	GASOLINE MOD 8015	DIESEL - MOD 8015	OIL - MOD 8015	CHLORIDE	FIELD NOTES
S-1 (1')		5/13/20	1258	S	1				X		X	X	X	X	X	
S-1 (3')			1254								X	X	X	X	X	
S-1 (5')			1300								X	X	X	X	X	
S-1 (10')			1302									X	X	X	X	
S-2 (1)			1303								X					
S-2 (3)			1305								X					
S-2 (5)			1307								X					
S-4 (1')		5/14/20	1119								X					
S-4 (3')			1121								X					
S-3 (1')			1202								X					
S-3 (3')			1204								X					
S-10 (0.5')		5/15/20	1030								X					
S-10 (1')			1032								X					
S-5 (1')			1101								X					
S-5 (3')			1102								X					

TOTAL 15

RELINQUISHED BY:(Signature) [signature] DATE/TIME 5/18/20 9:51 RECEIVED BY: (Signature) [signature] 5/18 951

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

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

LABORATORY: XENCO

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

LABORATORY USE ONLY:
RECEIVING TEMP: 2.3/2.0 THERM#: R9
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

№ 1009

CHAIN-OF-CUSTODY

661820

Larson & Associates, Inc.
Environmental Consultants

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

DATE: 5/18/20 PAGE 2 OF 2

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: MONUMENT 12 STATE 14

LAI PROJECT #: 20-0107-11 COLLECTOR: DS/EC

Data Reported to:

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	HCl	HNO_3	H_2SO_4 / NaOH	ICE	UNPRESSERVED	BTEX	TRPH	GASOLINE MOD 8015	DIESEL - MOD 8015	OIL - MOD 8015	CHLORIDE	FIELD NOTES
S-9 (0.5')		5/15/20	1050	S	1				X		I		I	I	I	I	
S-9 (1')		5/15/20	1051	S	1				X		I		I	I	I	I	
S-9 (3')		5/15/20	1052	S	1				X		I		I	I	I	I	

TOTAL 3

RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	5/18/20 9:51	[signature]	5/18 9:51
RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)	
RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)	

LABORATORY: XENCO

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

LABORATORY USE ONLY:
RECEIVING TEMP: 2.3/2.4 THERM#: K9
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Date/ Time Received: 05.18.2020 09.51.00 AM

Work Order #: 661822

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

Temperature Measuring device used : R9

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	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: 05.18.2020
Brianna Teel

Checklist reviewed by: Holly Taylor Date: 05.19.2020
Holly Taylor

Certificate of Analysis Summary 668223

Larson and Associates, Inc., Midland, TX

Project Name: Monument 12 State #016

Project Id: 20-0107-11
Contact: Mark Larson
Project Location:

Date Received in Lab: Mon 07.27.2020 08:56
Report Date: 07.30.2020 16:59
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	668223-001		668223-002		668223-003		668223-004					
	Field Id:	S-1, 5'		S-1, 10'		S-1, 15'		S-1, 20'					
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	07.24.2020 11:00		07.24.2020 11:05		07.24.2020 11:10		07.24.2020 11:15					
BTEX by EPA 8021B	***Extracted:***	07.28.2020 08:00											
	Analyzed:	07.28.2020 18:20											
	Units/RL:	mg/kg	RL										
Benzene		<0.00199	0.00199										
Toluene		<0.00199	0.00199										
Ethylbenzene		<0.00199	0.00199										
m,p-Xylenes		<0.00398	0.00398										
o-Xylene		<0.00199	0.00199										
Total Xylenes		<0.00199	0.00199										
Total BTEX		<0.00199	0.00199										
Chloride by EPA 300	***Extracted:***	07.27.2020 16:00		07.27.2020 16:00		07.27.2020 16:00		07.27.2020 16:00					
	Analyzed:	07.27.2020 16:56		07.27.2020 17:15		07.27.2020 17:21		07.27.2020 17:27					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		454	4.99	247	5.05	90.3	5.00	144	4.98				
TPH by SW8015 Mod	***Extracted:***	07.27.2020 11:00											
	Analyzed:	07.27.2020 18:42											
	Units/RL:	mg/kg	RL										
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0										
Diesel Range Organics (DRO)		<50.0	50.0										
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0										
Total TPH		<50.0	50.0										

BRL - Below Reporting Limit

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

Final 1.000

eurofins | Environment Testing Xenco

Analytical Report 668223

for

Larson and Associates, Inc.

Project Manager: Mark Larson

Monument 12 State #016

20-0107-11

07.30.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

07.30.2020

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

Reference: Eurofins Xenco, LLC Report No(s): **668223**
Monument 12 State #016
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) 668223. 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. 668223 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

Sample Cross Reference 668223

Larson and Associates, Inc., Midland, TX

Monument 12 State #016

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-1, 5'	S	07.24.2020 11:00		668223-001
S-1, 10'	S	07.24.2020 11:05		668223-002
S-1, 15'	S	07.24.2020 11:10		668223-003
S-1, 20'	S	07.24.2020 11:15		668223-004

CASE NARRATIVE

Client Name: Larson and Associates, Inc.

Project Name: Monument 12 State #016

Project ID: *20-0107-11*
Work Order Number(s): *668223*

Report Date: *07.30.2020*
Date Received: *07.27.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3132793 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 668223-001.

Certificate of Analytical Results 668223

Larson and Associates, Inc., Midland, TX

Monument 12 State #016

Sample Id:	**S-1, 5'**	Matrix:	Soil	Date Received:	07.27.2020 08:56
Lab Sample Id:	668223-001	Date Collected:	07.24.2020 11:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.27.2020 16:00	Basis:	Wet Weight
Seq Number:	3132746				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**454**	4.99	mg/kg	07.27.2020 16:56		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.27.2020 11:00	Basis:	Wet Weight
Seq Number:	3132793				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.27.2020 18:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.27.2020 18:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.27.2020 18:42	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.27.2020 18:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	126	%	70-130	07.27.2020 18:42	
o-Terphenyl	84-15-1	133	%	70-130	07.27.2020 18:42	**

Certificate of Analytical Results 668223

Larson and Associates, Inc., Midland, TX

Monument 12 State #016

Sample Id:	**S-1, 5'**	Matrix:	Soil	Date Received:	07.27.2020 08:56
Lab Sample Id:	668223-001	Date Collected:	07.24.2020 11:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	AMF			% Moisture:	
Analyst:	AMF	Date Prep:	07.28.2020 08:00	Basis:	Wet Weight
Seq Number:	3132875				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.28.2020 18:20	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.28.2020 18:20	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.28.2020 18:20	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.28.2020 18:20	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.28.2020 18:20	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.28.2020 18:20	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.28.2020 18:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.28.2020 18:20	
4-Bromofluorobenzene	460-00-4	104	%	70-130	07.28.2020 18:20	

Certificate of Analytical Results 668223

Larson and Associates, Inc., Midland, TX

Monument 12 State #016

Sample Id:	**S-1, 10'**	Matrix:	Soil	Date Received:	07.27.2020 08:56
Lab Sample Id:	668223-002	Date Collected:	07.24.2020 11:05		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.27.2020 16:00	Basis:	Wet Weight
Seq Number:	3132746				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**247**	5.05	mg/kg	07.27.2020 17:15		1

Certificate of Analytical Results 668223

Larson and Associates, Inc., Midland, TX

Monument 12 State #016

Sample Id:	**S-1, 15'**	Matrix:	Soil	Date Received:	07.27.2020 08:56
Lab Sample Id:	668223-003	Date Collected:	07.24.2020 11:10		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.27.2020 16:00	Basis:	Wet Weight
Seq Number:	3132746				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**90.3**	5.00	mg/kg	07.27.2020 17:21		1

Certificate of Analytical Results 668223

Larson and Associates, Inc., Midland, TX

Monument 12 State #016

Sample Id:	**S-1, 20'**	Matrix:	Soil	Date Received:	07.27.2020 08:56
Lab Sample Id:	668223-004	Date Collected:	07.24.2020 11:15		
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.27.2020 16:00	Basis:	Wet Weight
Seq Number:	3132746				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**144**	4.98	mg/kg	07.27.2020 17:27		1

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

Larson and Associates, Inc.

Monument 12 State #016

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3132746 Matrix: Solid Date Prep: 07.27.2020
MB Sample Id: 7708160-1-BLK LCS Sample Id: 7708160-1-BKS LCSD Sample Id: 7708160-1-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	263	105	264	106	90-110	0	20	mg/kg	07.27.2020 16:43	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3132746 Matrix: Soil Date Prep: 07.27.2020
Parent Sample Id: 668223-001 MS Sample Id: 668223-001 S MSD Sample Id: 668223-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	454	250	694	96	693	96	90-110	0	20	mg/kg	07.27.2020 17:02	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3132746 Matrix: Soil Date Prep: 07.27.2020
Parent Sample Id: 668264-006 MS Sample Id: 668264-006 S MSD Sample Id: 668264-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	57.0	251	312	102	326	107	90-110	4	20	mg/kg	07.27.2020 18:31	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3132793 Matrix: Solid Date Prep: 07.27.2020
MB Sample Id: 7708142-1-BLK LCS Sample Id: 7708142-1-BKS LCSD Sample Id: 7708142-1-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	907	91	902	90	70-130	1	20	mg/kg	07.27.2020 11:23	
Diesel Range Organics (DRO)	<50.0	1000	973	97	885	89	70-130	9	20	mg/kg	07.27.2020 11:23	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		130		128		70-130	%	07.27.2020 11:23
o-Terphenyl	118		130		122		70-130	%	07.27.2020 11:23

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3132793 Matrix: Solid Date Prep: 07.27.2020
MB Sample Id: 7708142-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.27.2020 11:04	

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

QC Summary 668223

Larson and Associates, Inc.

Monument 12 State #016

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3132793 Matrix: Soil Date Prep: 07.27.2020
Parent Sample Id: 668222-001 MS Sample Id: 668222-001 S MSD Sample Id: 668222-001 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	815	82	816	82	70-130	0	20	mg/kg	07.27.2020 12:20	
Diesel Range Organics (DRO)	<49.9	997	833	84	831	83	70-130	0	20	mg/kg	07.27.2020 12:20	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		116		70-130	%	07.27.2020 12:20
o-Terphenyl	106		108		70-130	%	07.27.2020 12:20

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3132875 Matrix: Solid Date Prep: 07.28.2020
MB Sample Id: 7708273-1-BLK LCS Sample Id: 7708273-1-BKS LCSD Sample Id: 7708273-1-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	0.0933	93	0.0947	95	70-130	1	35	mg/kg	07.28.2020 08:35	
Toluene	<0.00200	0.100	0.0920	92	0.0940	94	70-130	2	35	mg/kg	07.28.2020 08:35	
Ethylbenzene	<0.00200	0.100	0.0891	89	0.0908	91	70-130	2	35	mg/kg	07.28.2020 08:35	
m,p-Xylenes	<0.00400	0.200	0.179	90	0.183	92	70-130	2	35	mg/kg	07.28.2020 08:35	
o-Xylene	<0.00200	0.100	0.0902	90	0.0922	92	70-130	2	35	mg/kg	07.28.2020 08:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		100		70-130	%	07.28.2020 08:35
4-Bromofluorobenzene	101		101		102		70-130	%	07.28.2020 08:35

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3132875 Matrix: Soil Date Prep: 07.28.2020
Parent Sample Id: 668106-001 MS Sample Id: 668106-001 S MSD Sample Id: 668106-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0453	45	0.0244	24	70-130	60	35	mg/kg	07.28.2020 09:16	XF
Toluene	<0.00199	0.0996	0.0272	27	0.0114	11	70-130	82	35	mg/kg	07.28.2020 09:16	XF
Ethylbenzene	<0.00199	0.0996	0.0146	15	0.00563	6	70-130	89	35	mg/kg	07.28.2020 09:16	XF
m,p-Xylenes	<0.00398	0.199	0.0273	14	0.0112	6	70-130	84	35	mg/kg	07.28.2020 09:16	XF
o-Xylene	<0.00199	0.0996	0.0151	15	0.00639	6	70-130	81	35	mg/kg	07.28.2020 09:16	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		103		70-130	%	07.28.2020 09:16
4-Bromofluorobenzene	103		103		70-130	%	07.28.2020 09:16

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

№ 1256

Lab# 223

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants

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

Data Reported to:

DATE: 7/27/20 PAGE 1 OF 1

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Monument 12 State #016

LAI PROJECT #: 20-0107-11 COLLECTOR: RN

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 ☐	CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
S-1, 5'		7/27/20	11:00	S	1				X		X		X	X	X												X		
S-1, 10'		"	11:05	"	"				"																		X		
S-1, 15'		"	11:10	"	"				"																		X		
S-1, 20'		"	11:15	"	"				"																		X		
TOTAL	4																												

RELINQUISHED BY:(Signature) Grant Larson DATE/TIME 7/27/20 RECEIVED BY: (Signature) 0850

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

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

LABORATORY: Xenco

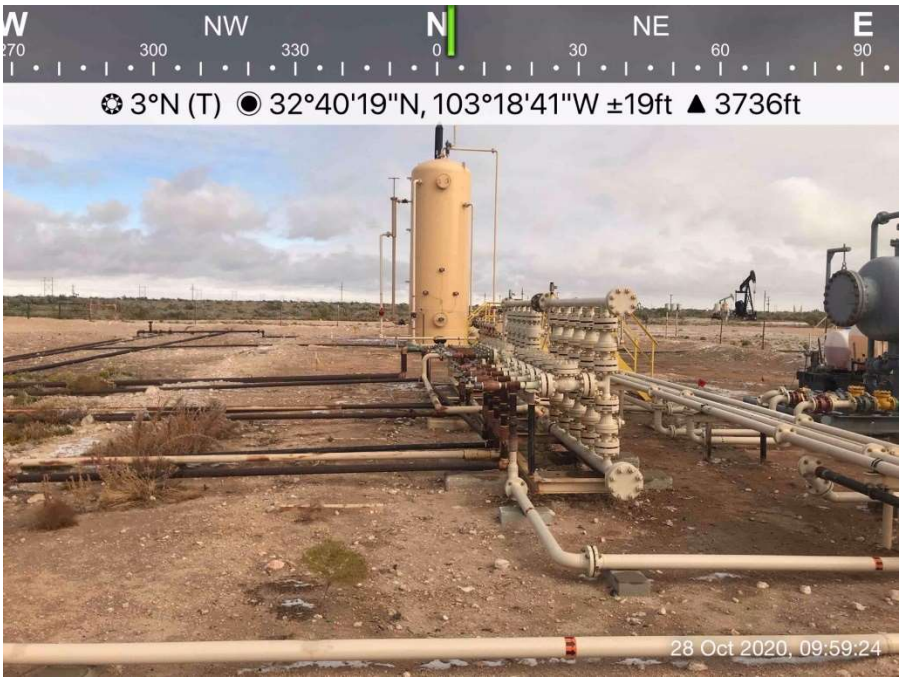
TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 1.6/1.2 THERM#: IR-8
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☑ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

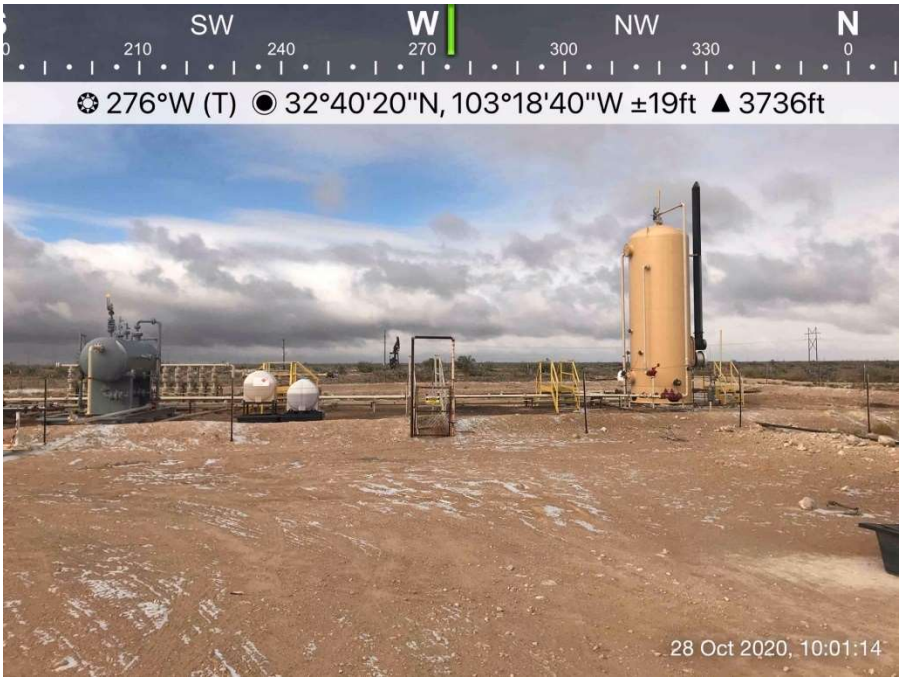
Appendix D
Photographs

Impacted area viewing south, October 28, 2020

Impacted area viewing east, October 28, 2020



Impacted area viewing north, October 28, 2020



Impacted area viewing west, October 28, 2020