State of New Mexico
Oil Conservation Division

Incident ID	nVV2003739963
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?	73.64 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nVV2003739963
District RP	
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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: Date: 5/1/2020

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

OCD Only

Received by: Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nVV2003739963
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: 5/1/2020

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

OCD Only

Received by: Date:

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

Signature: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nVV2003739963
District RP	
Facility ID	
Application ID	

Closure

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

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

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

[X] Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

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

[X] Description of remediation activities

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

Printed Name: Amy Barnhill Title: Waste and Water Specialist

Signature: Date: 5/1/2020

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

OCD Only

Received by: Date:

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

Closure Approved by: Date:

Printed Name: Title:

Tracking Number: nVV2003739963
Delineation Report and Closure Request
Brunson Argo SWD
Produced Water Release
Lea County, New Mexico

Latitude: N 32.40831°
Longitude: W 103.16571°

LAI Project No. 19-0180-04

May 1, 2020

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

Prepared by:
Larson & Associates, Inc.
507 North Marienfeld Street, Suite 205
Midland, Texas 79701

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

Rachel E. Owen
Sr. Geoscientist

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1.0 INTRODUCTION

Larson & Associates, Inc. (LAI), has prepared this delineation report and remediation plan on behalf of Chevron USA Inc. (Chevron) for submittal to the New Mexico Oil Conservation Division (OCD) District 1 for a produced water release at the Brunson Argo SWD located in Unit G (SW/4, NE/4), Section 9, Township 22 South, Range 37 East in Lea County New Mexico. The geodetic position is North 32.40831° and West -103.16571°. Figure 1 presents a topographic map. Figure 2 presents an aerial map.

1.1 Background

The release was discovered on October 25, 2019. The spill occurred when the valve cap on a triplex pump came loose due to a broken bolt. Chevron reported that 19 barrels (bbls) of produced water were released and 19 bbls were recovered. The release received an incident tracking number of nVV2003739963.

1.2 Physical Setting

The physical setting is as follows:

- The surface elevation is approximately 3,427 feet above mean sea level (msl);
- The surface topography gradually decreases to the southeast;
- There are no surface water features within 1,000 feet of the Site;
- The soils are designated as “Berino-Cacique loamy fine sands association”, consisting of 0 to 6 inches of loamy fine sand followed by 6 to 60 inches of a sandy clay loam;
- The geology is Eolian and piedmont deposits (Holocene to middle Pleistocene)- interlayed eolian sands and piedmont-slope deposits;
- Groundwater occurs at approximately 73.64 feet below ground surface (bgs) based on depth to groundwater measurements 72 hours after installing a temporary monitor well (BH-1) on March 3, 2020.

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 November 11 2019, LAI personnel used a stainless steel hand auger to collect initial surface soil samples (0 to 0.5 feet bgs) from four (4) locations inside of the spill area (SP-1 through SP-4) and three (3) locations outside of the spill area (SP-5 through SP-7). The soil samples were delivered under chain of custody and preservation to Xenco Laboratories (Xenco) in Midland, Texas. The laboratory analyzed the

samples for benzene, toluene, ethylbenzene and xylenes (BTEX) and total petroleum hydrocarbons (TPH), including gasoline range organics (C6-C12), diesel range organics (>C12-C28) and oil range organics (>C28-C35), and chloride by EPA SW-846 Methods 8021B and 8015M, and M300, respectively. Figure 2 presents an aerial map showing the sample locations. Benzene and BTEX reported below the delineation limit of 10 milligrams per kilogram (mg/Kg) and 50 mg/Kg, respectively in all samples. Benzene and BTEX were below the OCD remediation action levels of 10 milligrams per kilogram (mg/Kg) and 50 mg/Kg, respectively. TPH reported above the delineation limit of 100 mg/Kg in the following samples:

SP-1 (448 mg/Kg)
SP-2 (1,160 mg/Kg)
SP-3 (188 mg/Kg)
SP-4 (183 mg/Kg).
SP-5 (164 mg/Kg)
SP-6 (161 mg/Kg)
SP-7 (144 mg/Kg)

Chloride exceeded the delineation limit of 600 mg/Kg in samples SP-1 (1,960 mg/Kg), SP-2 (2,030 mg/Kg), and SP-3 (2,030 mg/Kg).

On December 2, 2020 and December 3, 2020, LAI personnel collected soil samples using direct push technology to further delineate the release. Samples were collected from 1.5 to 5.5 feet bgs depending on subsurface conditions. The samples were delivered under chain of custody and preservation to Xenco Laboratories (Xenco) in Midland, Texas. The laboratory analyzed the samples for BTEX, TPH, including gasoline range organics (C6-C12), diesel range organics (>C12-C28) and oil range organics (>C28-C35), and chloride by EPA SW-846 Methods 8021B and 8015M, and M300, respectively. Benzene and BTEX reported below analytical method reporting limits TPH reported above the delineation limit of 100 mg/Kg in the following samples:

SP-1, 1.5 to 3’ – 214 mg/Kg
SP-2, 3.5 to 5’ – 327 mg/Kg
SP-3, 1.5 to 3’ – 1,410 mg/Kg
SP-4, 1.5 to 3’ – 1,790 mg/Kg
SP-7, 1.5 to 3’ – 173 mg/Kg

Chloride reported above the delineation limit of 600 mg/Kg in the following samples:

SP-1, 1.5 to 3’ – 3,060 mg/Kg
SP-1, 3.5 to 5’ – 1,770 mg/Kg
SP-2, 3.5 to 5’ – 3,380 mg/Kg
SP-3, 1.5 to 3’ – 2,300 mg/Kg
SP-3, 3.5 to 5’ – 1,190 mg/Kg

On March 3, 2020, Scarborough Drilling Inc. (SDI), under LAI supervision, used an air rotary rig to collect additional soil samples to complete vertical delineation. Samples were collected from five (5) feet bgs to twenty (20) feet bgs at 5 feet intervals. On March 5, 2020, LAI personnel used a stainless-steel hand auger to collect additional soil samples (SP-8 through SP-11) to complete horizontal delineation. Samples were collected from 0 to 0.5 feet bgs and 0.5 to 1 feet bgs. The samples were delivered under chain of custody and preservation to Xenco Laboratories (Xenco) in Midland, Texas. The laboratory analyzed the samples for BTEX, TPH) including gasoline range organics (C6-C12), diesel range organics (>C12-C28) and oil range organics (>C28-C35), and chloride by EPA SW-846 Methods 8021B and 8015M, and M300, respectively. Benzene and BTEX were below the analytical method reporting limits. Chloride

was delineated to 600 mg/Kg at all sample locations. TPH was reported above the delineation limit (100 mg/Kg) in samples SP-9, 0 to 0.5 feet (219 mg/Kg) and SP-9, 0.5 to 1 foot (298 mg/Kg). Sample results from SP-9 may suggest a past release from a buried pipeline located to the south. On March 18, 2020, LAI personnel collected a soil sample at location SP-12 to supplement horizontal delineation to the south of the release area. TPH reported below the delineation limit of 100 mg/Kg. Table 1 presents the soil sample analytical data summary. Appendix A presents the laboratory reports.

On March 5, 2020, SDI, under LAI supervision, used an air rotary drilling rig to drill a boring for depth to groundwater determination. The boring (BH-1) was drilled in an undisturbed area about 1,300 feet west of the Site to approximately 93 feet bgs. The boring was gauged with an electronic water level meter about 72 hours after drilling and groundwater was recorded at 73.64 feet bgs. The boring was plugged with bentonite. Appendix B presents the soil boring log.

3.0 CLOSURE REQUEST

Chevron has fully characterized and delineated the release. Concentrations of benzene, BTEX, TPH, and chloride in soil are below the OCD remediation levels of 10 mg/Kg, 50 mg/Kg, 2,500 mg/Kg, and 10,000 mg/Kg, respectively. All soil sample locations are located on an active well pad. Chevron respectfully requests no further action for release nVV2003739963.

Tables

Table 1
Delineation Soil Sample Analytical Data Summary
Chevron USA, Brunson Argo SWD
Lea County, New Mexico
North 32.40831° West -103.16571°

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**
SP-1	0 - 0.5	11/11/2019	In-Situ	<0.00115	<0.00690	<28.7	264	184	**448**	**1,960**
	1.5 - 3	12/3/2019	In-Situ	<0.00111	<0.00666	<27.8	110	104	**214**	**3,060**
	3.5 - 5	12/3/2019	In-Situ	--	--	--	--	--	--	**1,770**
	5 - 5.5	12/3/2019	In-Situ	--	--	--	--	--	--	216
	5	3/3/2020	In-Situ	--	--	<50.0	250	77.1	327	--
	10	3/3/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	--
	15	3/3/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	--
	20	3/3/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	--
SP-2	0 - 0.5	11/11/2019	In-Situ	<0.00110	0.00952	<27.5	924	234	**1,160**	**2,030**
	3.5-5	12/3/2019	In-Situ	<0.00125	<0.00750	<31.2	270	57	**327**	**3,380**
	5 - 8	12/3/2019	In-Situ	--	--	--	--	--	--	16.0
	5	3/3/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	--
	10	3/3/2020	In-Situ	--	--	<49.9	<49.9	<49.9	<49.9	--
	15	3/3/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	--
	20	3/3/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	--
SP-3	0 - 0.5	11/11/2019	In-Situ	0.00140	0.06324	<27.5	118	69.8	188	**2,030**
	1.5 - 3	12/3/2019	In-Situ	<0.00125	<0.00750	<31.2	871	537	**1,410**	**2,300**
	3.5 - 5	12/3/2019	In-Situ	--	--	--	--	--	--	**1,190**
	5 - 5.5	12/3/2019	In-Situ	--	--	--	--	--	--	407
	5	3/3/2020	In-Situ	--	--	<49.9	<49.9	<49.9	<49.9	--
	10	3/3/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	--

Table 1
Delineation Soil Sample Analytical Data Summary
Chevron USA, Brunson Argo SWD
Lea County, New Mexico
North 32.40831° West -103.16571°

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**
	15	3/3/2020	In-Situ	--	--	<49.8	<49.8	<49.8	<49.8	--
	20	3/3/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	--
SP-4	0 - 0.5	11/11/2019	In-Situ	<0.00108	<0.00647	<26.9	104	79.2	183	18.5
	1.5 - 3	12/3/2019	In-Situ	<0.00111	<0.00666	<27.8	1,260	524	**1,790**	101
	3.5 - 5	12/3/2019	In-Situ	--	--	--	--	--	--	252
	5	3/3/2020	In-Situ	--	--	<49.9	<49.9	<49.9	<49.9	--
	10	3/3/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	--
	15	3/3/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	--
	20	3/3/2020	In-Situ	--	--	<49.9	<49.9	<49.9	<49.9	--
SP-5	0 - 0.5	11/11/2019	In-Situ	<0.00103	<0.00618	<25.8	95.6	68.8	**164**	11.8
	1.5 - 3	12/3/2019	In-Situ	<0.00106	<0.00637	<26.6	49.2	38.3	87.5	103
	3.5 - 5	12/3/2019	In-Situ	--	--	--	--	--	--	546
SP-6	0 - 0.5	11/11/2019	In-Situ	<0.00106	<0.00637	<26.6	97.3	63.4	**161**	431
	1.5 - 3	12/3/2019	In-Situ	<0.00106	<0.00637	<26.6	712	245	**957**	**791**
	3.5 - 5	12/3/2019	In-Situ	--	--	--	--	--	--	**811**
	5	3/3/2020	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	**630**
	10	3/3/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	213
	15	3/3/2020	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	119
	20	3/3/2020	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	104
SP-7	0 - 0.5	11/11/2019	In-Situ	<0.00105	<0.00631	<26.3	79.2	65.1	**144**	226
	1.5 - 3	12/2/2019	In-Situ	<0.00106	<0.00637	<26.6	105	67.7	**173**	185
	3.5 - 5	12/2/2019	In-Situ	--	--	--	--	--	--	105

Table 1
Delineation Soil Sample Analytical Data Summary
Chevron USA, Brunson Argo SWD
Lea County, New Mexico
North 32.40831° West -103.16571°

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**
	5 - 5.5	12/2/2019	In-Situ	--	--	--	--	--	--	269
	5	3/3/2020	In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	--
	10	3/3/2020	In-Situ	--	--	<49.9	<49.9	<49.9	<49.9	--
	15	3/3/2020	In-Situ	--	--	<49.9	<49.9	<49.9	<49.9	--
	20	3/3/2020	In-Situ	--	--	<49.8	<49.8	<49.8	<49.8	--
SP-8	0 - 0.5	3/5/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<5.0
	0.5 - 1	3/5/2020	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	5.6
SP-9	0 - 0.5	3/5/2020	In-Situ	<0.00198	<0.00198	<50.0	155	63.9	**219**	5.60
	0.5 - 1	3/5/2020	In-Situ	<0.00200	<0.00200	<49.8	219	78.9	**298**	7.05
SP-10	0 - 0.5	3/5/2020	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	5.63
	0.5 - 1	3/5/2020	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<4.99
SP-11	0 - 0.5	3/5/2020	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<5.02
	0.5 - 1	3/5/2020	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<4.97
SP-12	0 - 0.5	3/18/2020	In-Situ	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<4.98
	0.5 - 1	3/18/2020	In-Situ	<0.00200	<0.00200	<50.0	64.9	<50.0	64.9	<5.02

Notes: Analysis performed by Permian Basin Environmental Laboratory and Xenco Laboratories, Midland, TX by EPA SW-846 Methods 8021B (BTEX), 8015M (TPH), and M300 (chloride)
Depth in feet below ground surface (bgs)
mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)
<: denotes concentration less than analytical method reporting limit
Bold and Highlighted exceeds OCD remediation levels

Figures

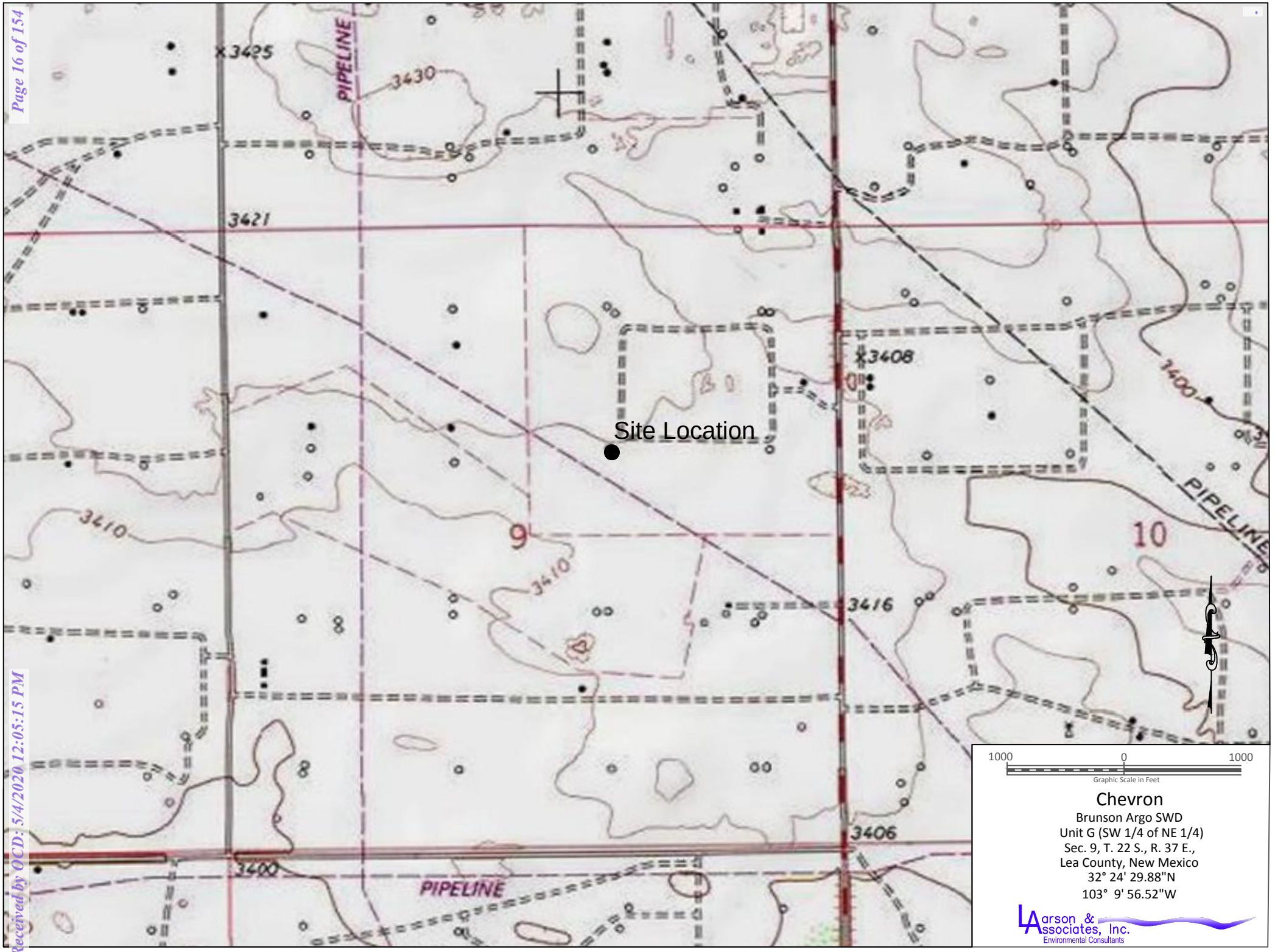

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Figure 1 - Topographic Map

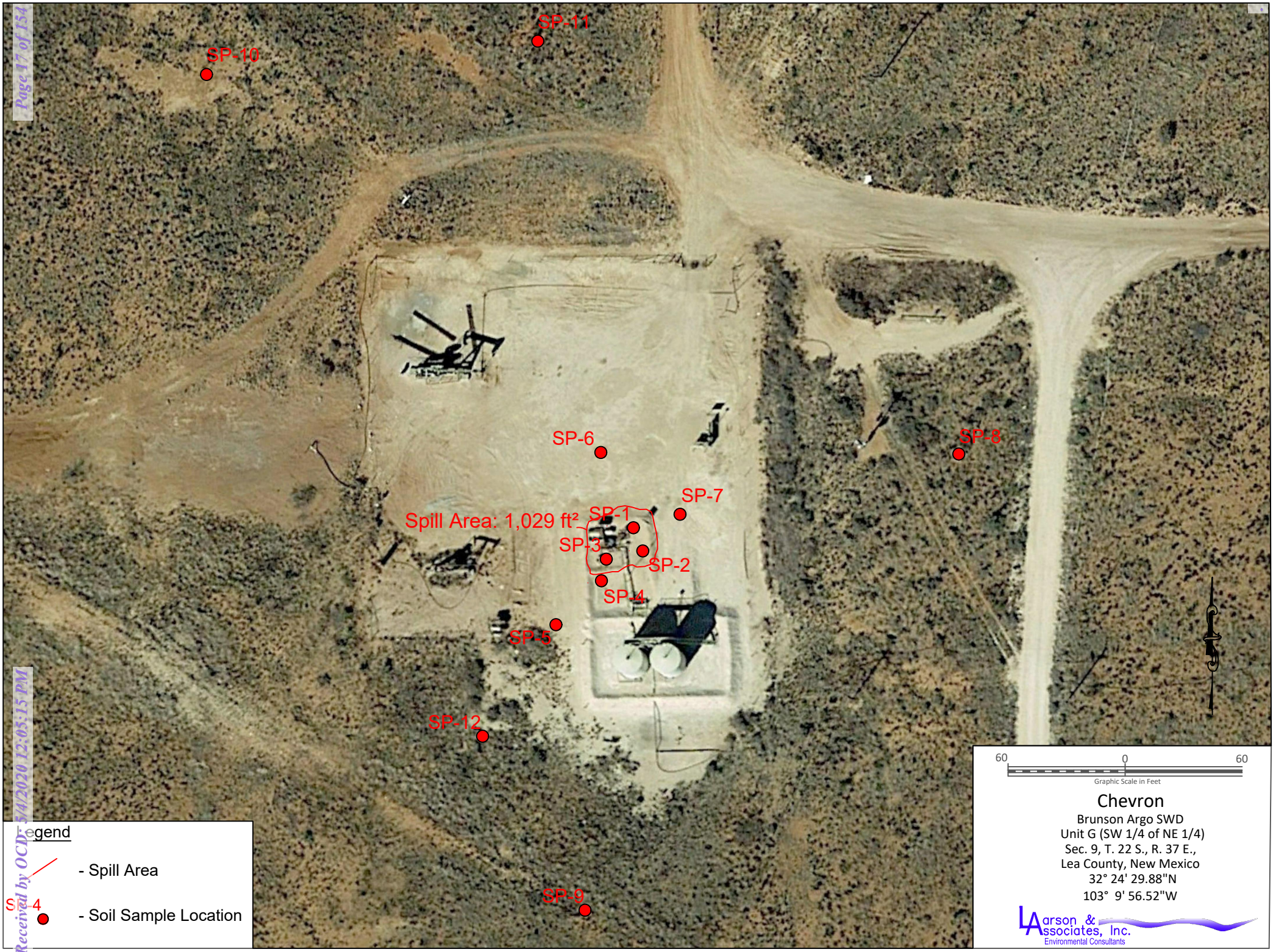

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Figure 2a - Aerial Map

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Figure 2a - Aerial Map Showing Boring Hole Location

Appendix A

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: Brunson Argo SWD-Chevron

Project Number: 19-0180-04

Location: NM

Lab Order Number: 9K12006

NELAP/TCEQ # T104704516-17-8

Report Date: 11/20/19

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

Project: Brunson Argo SWD-Chevron
Project Number: 19-0180-04
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP-1 @ (0-0.5)	9K12006-01	Soil	11/11/19 11:50	11-12-2019 10:00
SP-2 @ (0-0.5)	9K12006-02	Soil	11/11/19 11:45	11-12-2019 10:00
SP-3 @ (0-0.5)	9K12006-03	Soil	11/11/19 11:39	11-12-2019 10:00
SP-4 @ (0-0.5)	9K12006-04	Soil	11/11/19 11:30	11-12-2019 10:00
SP-5 @ (0-0.5)	9K12006-05	Soil	11/11/19 11:26	11-12-2019 10:00
SP-6 @ (0-0.5)	9K12006-06	Soil	11/11/19 11:11	11-12-2019 10:00
SP-7 @ (0-0.5)	9K12006-07	Soil	11/11/19 11:17	11-12-2019 10:00

Larson & Associates, Inc.	Project: Brunson Argo SWD-Chevron	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

SP-1 @ (0-0.5)

9K12006-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00115	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Toluene	ND	0.00115	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Ethylbenzene	ND	0.00115	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Xylene (p/m)	ND	0.00230	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Xylene (o)	ND	0.00115	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*104 %*	*75-125*		*P9K1406*	*11/14/19*	*11/14/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*98.9 %*	*75-125*		*P9K1406*	*11/14/19*	*11/14/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1960**	5.75	mg/kg dry	5	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**13.0**	0.1	%	1	P9K1301	11/13/19	11/13/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.7	mg/kg dry	1	P9K1304	11/13/19	11/14/19	TPH 8015M	
>C12-C28	**264**	28.7	mg/kg dry	1	P9K1304	11/13/19	11/14/19	TPH 8015M	
>C28-C35	**184**	28.7	mg/kg dry	1	P9K1304	11/13/19	11/14/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*87.9 %*	*70-130*		*P9K1304*	*11/13/19*	*11/14/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*94.6 %*	*70-130*		*P9K1304*	*11/13/19*	*11/14/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**448**	28.7	mg/kg dry	1	[CALC]	11/13/19	11/14/19	calc	

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P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

SP-2 @ (0-0.5)

9K12006-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00110	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Toluene	ND	0.00110	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Ethylbenzene	ND	0.00110	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Xylene (o)	**0.00952**	0.00110	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*111 %*	*75-125*		*P9K1406*	*11/14/19*	*11/14/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*101 %*	*75-125*		*P9K1406*	*11/14/19*	*11/14/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2030**	5.49	mg/kg dry	5	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P9K1301	11/13/19	11/13/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.5	mg/kg dry	1	P9K1304	11/13/19	11/14/19	TPH 8015M	
>C12-C28	**924**	27.5	mg/kg dry	1	P9K1304	11/13/19	11/14/19	TPH 8015M	
>C28-C35	**234**	27.5	mg/kg dry	1	P9K1304	11/13/19	11/14/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*80.1 %*	*70-130*		*P9K1304*	*11/13/19*	*11/14/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*86.4 %*	*70-130*		*P9K1304*	*11/13/19*	*11/14/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**1160**	27.5	mg/kg dry	1	[CALC]	11/13/19	11/14/19	calc	

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P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

SP-3 @ (0-0.5)

9K12006-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00140**	0.00110	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Toluene	**0.0164**	0.00110	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Ethylbenzene	**0.00554**	0.00110	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Xylene (p/m)	ND	0.00220	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Xylene (o)	**0.0399**	0.00110	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*105 %*	*75-125*		*P9K1406*	*11/14/19*	*11/14/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*106 %*	*75-125*		*P9K1406*	*11/14/19*	*11/14/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2030**	5.49	mg/kg dry	5	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P9K1301	11/13/19	11/13/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.5	mg/kg dry	1	P9K1304	11/13/19	11/14/19	TPH 8015M	
>C12-C28	**118**	27.5	mg/kg dry	1	P9K1304	11/13/19	11/14/19	TPH 8015M	
>C28-C35	**69.8**	27.5	mg/kg dry	1	P9K1304	11/13/19	11/14/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*84.9 %*	*70-130*		*P9K1304*	*11/13/19*	*11/14/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*90.6 %*	*70-130*		*P9K1304*	*11/13/19*	*11/14/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**188**	27.5	mg/kg dry	1	[CALC]	11/13/19	11/14/19	calc	

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P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

SP-4 @ (0-0.5)

9K12006-04 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00108	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Toluene	ND	0.00108	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Ethylbenzene	ND	0.00108	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Xylene (p/m)	ND	0.00215	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Xylene (o)	ND	0.00108	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*105 %*	*75-125*		*P9K1406*	*11/14/19*	*11/14/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*101 %*	*75-125*		*P9K1406*	*11/14/19*	*11/14/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**18.5**	1.08	mg/kg dry	1	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P9K1301	11/13/19	11/13/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P9K1304	11/13/19	11/15/19	TPH 8015M	
>C12-C28	**104**	26.9	mg/kg dry	1	P9K1304	11/13/19	11/15/19	TPH 8015M	
>C28-C35	**79.2**	26.9	mg/kg dry	1	P9K1304	11/13/19	11/15/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*74.9 %*	*70-130*		*P9K1304*	*11/13/19*	*11/15/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*76.3 %*	*70-130*		*P9K1304*	*11/13/19*	*11/15/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**183**	26.9	mg/kg dry	1	[CALC]	11/13/19	11/15/19	calc	

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P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

SP-5 @ (0-0.5)

9K12006-05 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00103	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Toluene	ND	0.00103	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Ethylbenzene	ND	0.00103	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Xylene (p/m)	ND	0.00206	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Xylene (o)	ND	0.00103	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*106 %*	*75-125*		*P9K1406*	*11/14/19*	*11/14/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*106 %*	*75-125*		*P9K1406*	*11/14/19*	*11/14/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**11.8**	1.03	mg/kg dry	1	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**3.0**	0.1	%	1	P9K1301	11/13/19	11/13/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.8	mg/kg dry	1	P9K1304	11/13/19	11/15/19	TPH 8015M	
>C12-C28	**95.6**	25.8	mg/kg dry	1	P9K1304	11/13/19	11/15/19	TPH 8015M	
>C28-C35	**68.8**	25.8	mg/kg dry	1	P9K1304	11/13/19	11/15/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*89.9 %*	*70-130*		*P9K1304*	*11/13/19*	*11/15/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*96.0 %*	*70-130*		*P9K1304*	*11/13/19*	*11/15/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**164**	25.8	mg/kg dry	1	[CALC]	11/13/19	11/15/19	calc	

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P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

SP-6 @ (0-0.5)

9K12006-06 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*111 %*	*75-125*		*P9K1406*	*11/14/19*	*11/14/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*95.9 %*	*75-125*		*P9K1406*	*11/14/19*	*11/14/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**431**	1.06	mg/kg dry	1	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P9K1301	11/13/19	11/13/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	P9K1304	11/13/19	11/15/19	TPH 8015M	
>C12-C28	**97.3**	26.6	mg/kg dry	1	P9K1304	11/13/19	11/15/19	TPH 8015M	
>C28-C35	**63.4**	26.6	mg/kg dry	1	P9K1304	11/13/19	11/15/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*86.7 %*	*70-130*		*P9K1304*	*11/13/19*	*11/15/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*88.1 %*	*70-130*		*P9K1304*	*11/13/19*	*11/15/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**161**	26.6	mg/kg dry	1	[CALC]	11/13/19	11/15/19	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-7 @ (0-0.5)

9K12006-07 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00105	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Toluene	ND	0.00105	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	P9K1406	11/14/19	11/14/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*85.2 %*	*75-125*		*P9K1406*	*11/14/19*	*11/14/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*107 %*	*75-125*		*P9K1406*	*11/14/19*	*11/14/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**226**	1.05	mg/kg dry	1	P9K1807	11/18/19	11/19/19	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P9K1301	11/13/19	11/13/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.3	mg/kg dry	1	P9K1304	11/13/19	11/15/19	TPH 8015M	
>C12-C28	**79.2**	26.3	mg/kg dry	1	P9K1304	11/13/19	11/15/19	TPH 8015M	
>C28-C35	**65.1**	26.3	mg/kg dry	1	P9K1304	11/13/19	11/15/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*82.2 %*	*70-130*		*P9K1304*	*11/13/19*	*11/15/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*85.7 %*	*70-130*		*P9K1304*	*11/13/19*	*11/15/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**144**	26.3	mg/kg dry	1	[CALC]	11/13/19	11/15/19	calc	

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Larson & Associates, Inc.
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Midland TX, 79710

Project: Brunson Argo SWD-Chevron
Project Number: 19-0180-04
Project Manager: Mark Larson

Fax: (432) 687-0456

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9K1406 - General Preparation (GC)										
Blank (P9K1406-BLK1)				Prepared & Analyzed: 11/14/19						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	*0.140*		*"*	*0.120*		*117*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.119*		*"*	*0.120*		*99.2*	*75-125*			
LCS (P9K1406-BS1)				Prepared & Analyzed: 11/14/19						
Benzene	0.0805	0.00100	mg/kg wet	0.100		80.5	70-130			
Toluene	0.105	0.00100	"	0.100		105	70-130			
Ethylbenzene	0.116	0.00100	"	0.100		116	70-130			
Xylene (p/m)	0.225	0.00200	"	0.200		112	70-130			
Xylene (o)	0.106	0.00100	"	0.100		106	70-130			
Surrogate: 1,4-Difluorobenzene	*0.130*		*"*	*0.120*		*108*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.124*		*"*	*0.120*		*103*	*75-125*			
LCS Dup (P9K1406-BSD1)				Prepared & Analyzed: 11/14/19						
Benzene	0.0888	0.00100	mg/kg wet	0.100		88.8	70-130	9.85	20	
Toluene	0.109	0.00100	"	0.100		109	70-130	3.66	20	
Ethylbenzene	0.119	0.00100	"	0.100		119	70-130	2.57	20	
Xylene (p/m)	0.223	0.00200	"	0.200		112	70-130	0.603	20	
Xylene (o)	0.110	0.00100	"	0.100		110	70-130	3.94	20	
Surrogate: 4-Bromofluorobenzene	*0.122*		*"*	*0.120*		*102*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.125*		*"*	*0.120*		*105*	*75-125*			
Calibration Blank (P9K1406-CCB1)				Prepared & Analyzed: 11/14/19						
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	*0.114*		*"*	*0.120*		*95.0*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.140*		*"*	*0.120*		*117*	*75-125*			

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

Project: Brunson Argo SWD-Chevron
Project Number: 19-0180-04
Project Manager: Mark Larson

Fax: (432) 687-0456

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9K1406 - General Preparation (GC)										
Calibration Blank (P9K1406-CCB2)				Prepared & Analyzed: 11/14/19						
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.140*		*"*	*0.120*		*116*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.117*		*"*	*0.120*		*97.2*	*75-125*			
Calibration Blank (P9K1406-CCB3)				Prepared: 11/14/19 Analyzed: 11/15/19						
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.122*		*"*	*0.120*		*101*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.122*		*"*	*0.120*		*102*	*75-125*			
Calibration Check (P9K1406-CCV1)				Prepared & Analyzed: 11/14/19						
Benzene	0.0807	0.00100	mg/kg wet	0.100		80.7	80-120			
Toluene	0.109	0.00100	"	0.100		109	80-120			
Ethylbenzene	0.113	0.00100	"	0.100		113	80-120			
Xylene (p/m)	0.238	0.00200	"	0.200		119	80-120			
Xylene (o)	0.113	0.00100	"	0.100		113	80-120			
Surrogate: 1,4-Difluorobenzene	*0.124*		*"*	*0.120*		*103*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.132*		*"*	*0.120*		*110*	*75-125*			
Calibration Check (P9K1406-CCV2)				Prepared & Analyzed: 11/14/19						
Benzene	0.0952	0.00100	mg/kg wet	0.100		95.2	80-120			
Toluene	0.103	0.00100	"	0.100		103	80-120			
Ethylbenzene	0.111	0.00100	"	0.100		111	80-120			
Xylene (p/m)	0.198	0.00200	"	0.200		99.0	80-120			
Xylene (o)	0.106	0.00100	"	0.100		106	80-120			
Surrogate: 1,4-Difluorobenzene	*0.121*		*"*	*0.120*		*101*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.111*		*"*	*0.120*		*92.4*	*75-125*			

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Larson & Associates, Inc.	Project: Brunson Argo SWD-Chevron	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9K1406 - General Preparation (GC)										
Calibration Check (P9K1406-CCV3)				Prepared: 11/14/19 Analyzed: 11/15/19						
Benzene	0.102	0.00100	mg/kg wet	0.100		102	80-120			
Toluene	0.108	0.00100	"	0.100		108	80-120			
Ethylbenzene	0.119	0.00100	"	0.100		119	80-120			
Xylene (p/m)	0.198	0.00200	"	0.200		99.2	80-120			
Xylene (o)	0.103	0.00100	"	0.100		103	80-120			
Surrogate: 4-Bromofluorobenzene	*0.118*		"	*0.120*		*98.0*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.140*		"	*0.120*		*117*	*75-125*			
Matrix Spike (P9K1406-MS1)		**Source: 9K14010-01**		Prepared: 11/14/19 Analyzed: 11/15/19						
Benzene	0.0178	0.00110	mg/kg dry	0.110	0.0109	6.25	80-120			QM-05
Toluene	0.0150	0.00110	"	0.110	0.0145	0.430	80-120			QM-05
Ethylbenzene	0.00626	0.00110	"	0.110	0.0225	NR	80-120			QM-05
Xylene (p/m)	0.0199	0.00220	"	0.220	0.0675	NR	80-120			QM-05
Xylene (o)	0.102	0.00110	"	0.110	0.278	NR	80-120			QM-05
Surrogate: 4-Bromofluorobenzene	*0.123*		"	*0.132*		*92.9*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.109*		"	*0.132*		*82.9*	*75-125*			
Matrix Spike Dup (P9K1406-MSD1)		**Source: 9K14010-01**		Prepared: 11/14/19 Analyzed: 11/15/19						
Benzene	0.0239	0.00110	mg/kg dry	0.110	0.0109	11.8	80-120	61.4	20	QM-05
Toluene	0.0212	0.00110	"	0.110	0.0145	6.12	80-120	174	20	QM-05
Ethylbenzene	0.0181	0.00110	"	0.110	0.0225	NR	80-120	NR	20	QM-05
Xylene (p/m)	0.0358	0.00220	"	0.220	0.0675	NR	80-120	NR	20	QM-05
Xylene (o)	0.138	0.00110	"	0.110	0.278	NR	80-120	NR	20	QM-05
Surrogate: 4-Bromofluorobenzene	*0.0672*		"	*0.132*		*50.9*	*75-125*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.109*		"	*0.132*		*82.4*	*75-125*			

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Larson & Associates, Inc.	Project: Brunson Argo SWD-Chevron	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

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 P9K1301 - * DEFAULT PREP *** **										
Blank (P9K1301-BLK1)				Prepared & Analyzed: 11/13/19						
% Moisture	ND	0.1	%							
Duplicate (P9K1301-DUP1)		**Source: 9K12008-02**		Prepared & Analyzed: 11/13/19						
% Moisture	8.0	0.1	%		8.0			0.00	20	
Duplicate (P9K1301-DUP2)		**Source: 9K12009-03**		Prepared & Analyzed: 11/13/19						
% Moisture	3.0	0.1	%		3.0			0.00	20	
Duplicate (P9K1301-DUP3)		**Source: 9K12011-02**		Prepared & Analyzed: 11/13/19						
% Moisture	9.0	0.1	%		7.0			25.0	20	
Batch P9K1807 - * DEFAULT PREP *** **										
Blank (P9K1807-BLK1)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	ND	0.100	mg/kg wet							
LCS (P9K1807-BS1)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	431	1.00	mg/kg wet	400		108	80-120			
LCS Dup (P9K1807-BSD1)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	432	1.00	mg/kg wet	400		108	80-120	0.399	20	
Calibration Blank (P9K1807-CCB1)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	0.00		mg/kg wet							
Calibration Blank (P9K1807-CCB2)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	0.00		mg/kg wet							

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P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

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 P9K1807 - * DEFAULT PREP *** **										
Calibration Check (P9K1807-CCV1)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	21.2		mg/kg	20.0		106	0-200			
Calibration Check (P9K1807-CCV2)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	21.4		mg/kg	20.0		107	0-200			
Calibration Check (P9K1807-CCV3)				Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	20.6		mg/kg	20.0		103	0-200			
Matrix Spike (P9K1807-MS1)		**Source: 9K08023-18**		Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	1820	5.62	mg/kg dry	562	1260	101	80-120			
Matrix Spike (P9K1807-MS2)		**Source: 9K11001-10**		Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	3690	10.3	mg/kg dry	1030	2620	104	80-120			
Matrix Spike Dup (P9K1807-MSD1)		**Source: 9K08023-18**		Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	1820	5.62	mg/kg dry	562	1260	100	80-120	0.216	20	
Matrix Spike Dup (P9K1807-MSD2)		**Source: 9K11001-10**		Prepared: 11/18/19 Analyzed: 11/19/19						
Chloride	3990	10.3	mg/kg dry	1030	2620	133	80-120	7.86	20	

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Larson & Associates, Inc.	Project: Brunson Argo SWD-Chevron	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9K1304 - TX 1005										
Blank (P9K1304-BLK1)				Prepared & Analyzed: 11/13/19						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*150*		*"*	*120*		*125*	*70-130*			
Surrogate: o-Terphenyl	*78.6*		*"*	*60.0*		*131*	*70-130*			*S-GC*
LCS (P9K1304-BS1)				Prepared & Analyzed: 11/13/19						
C6-C12	1060	25.0	mg/kg wet	1000		106	75-125			
>C12-C28	1130	25.0	"	1000		113	75-125			
Surrogate: 1-Chlorooctane	*138*		*"*	*120*		*115*	*70-130*			
Surrogate: o-Terphenyl	*69.9*		*"*	*60.0*		*117*	*70-130*			
LCS Dup (P9K1304-BSD1)				Prepared & Analyzed: 11/13/19						
C6-C12	1040	25.0	mg/kg wet	1000		104	75-125	1.75	20	
>C12-C28	1120	25.0	"	1000		112	75-125	1.56	20	
Surrogate: 1-Chlorooctane	*134*		*"*	*120*		*112*	*70-130*			
Surrogate: o-Terphenyl	*68.7*		*"*	*60.0*		*114*	*70-130*			
Calibration Blank (P9K1304-CCB1)				Prepared & Analyzed: 11/13/19						
C6-C12	13.0		mg/kg wet							
>C12-C28	6.47		"							
Surrogate: 1-Chlorooctane	*147*		*"*	*120*		*122*	*70-130*			
Surrogate: o-Terphenyl	*77.9*		*"*	*60.0*		*130*	*70-130*			
Calibration Blank (P9K1304-CCB2)				Prepared: 11/13/19 Analyzed: 11/14/19						
C6-C12	8.80		mg/kg wet							
>C12-C28	20.4		"							
Surrogate: 1-Chlorooctane	*143*		*"*	*120*		*119*	*70-130*			
Surrogate: o-Terphenyl	*75.5*		*"*	*60.0*		*126*	*70-130*			

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Larson & Associates, Inc.	Project: Brunson Argo SWD-Chevron	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9K1304 - TX 1005										
Calibration Check (P9K1304-CCV1)				Prepared & Analyzed: 11/13/19						
C6-C12	559	25.0	mg/kg wet	500		112	85-115			
>C12-C28	454	25.0	"	500		90.9	85-115			
Surrogate: 1-Chlorooctane	*142*		*"*	*120*		*118*	*70-130*			
Surrogate: o-Terphenyl	*72.8*		*"*	*60.0*		*121*	*70-130*			
Calibration Check (P9K1304-CCV2)				Prepared: 11/13/19 Analyzed: 11/14/19						
C6-C12	562	25.0	mg/kg wet	500		112	85-115			
>C12-C28	564	25.0	"	500		113	85-115			
Surrogate: 1-Chlorooctane	*143*		*"*	*120*		*119*	*70-130*			
Surrogate: o-Terphenyl	*74.7*		*"*	*60.0*		*124*	*70-130*			
Calibration Check (P9K1304-CCV3)				Prepared: 11/13/19 Analyzed: 11/14/19						
C6-C12	555	25.0	mg/kg wet	500		111	85-115			
>C12-C28	535	25.0	"	500		107	85-115			
Surrogate: 1-Chlorooctane	*140*		*"*	*120*		*117*	*70-130*			
Surrogate: o-Terphenyl	*73.7*		*"*	*60.0*		*123*	*70-130*			
Matrix Spike (P9K1304-MS1)		**Source: 9K12003-01**		Prepared: 11/13/19 Analyzed: 11/14/19						
C6-C12	1310	30.9	mg/kg dry	1230	12.3	106	75-125			
>C12-C28	1410	30.9	"	1230	41.0	111	75-125			
Surrogate: 1-Chlorooctane	*170*		*"*	*148*		*115*	*70-130*			
Surrogate: o-Terphenyl	*87.3*		*"*	*74.1*		*118*	*70-130*			
Matrix Spike Dup (P9K1304-MSD1)		**Source: 9K12003-01**		Prepared: 11/13/19 Analyzed: 11/14/19						
C6-C12	1320	30.9	mg/kg dry	1230	12.3	106	75-125	0.540	20	
>C12-C28	1410	30.9	"	1230	41.0	111	75-125	0.341	20	
Surrogate: 1-Chlorooctane	*173*		*"*	*148*		*117*	*70-130*			
Surrogate: o-Terphenyl	*88.8*		*"*	*74.1*		*120*	*70-130*			

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Larson & Associates, Inc.	Project: Brunson Argo SWD-Chevron	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

Notes and Definitions

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

Report Approved By: Brent Barron Date: 11/20/2019

Brent Barron, Laboratory Director/Technical Director

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If you have received this material in error, please notify us immediately at 432-686-7235.

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P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

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№ 0792

CHAIN-OF-CUSTODY

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

DATE: 11/12/19 PAGE 1 OF 1

PO#: _____ LAB WORK ORDER#: 9K12006

PROJECT LOCATION OR NAME: Brunson Argo SWD-Chevron

LAI PROJECT #: 19-0180-04 COLLECTOR: RD

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐	TPH 1006 ☐	GASOLINE MOD 8015	DIESEL - MOD 8015 ☒	OIL - MOD 8015	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐	HOLDPAH ☐	8081 PESTICIDES ☐	8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐	TCLP VOC ☐	TCLP - PEST ☐	HERB ☐	Semi-VOC ☐	TOTAL METALS (RCRA) ☐	OTHER LIST ☐	LEAD - TOTAL ☐	D.W. 200.8 ☐	TCLP ☐	RCI ☐	TOX ☐	FLASHPOINT ☐	TDS ☐	TSS ☐	% MOISTURE ☐	CYANIDE ☐	pH ☐	HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐	PECHLORATE ☐	CHLORIDES ☒	ANIONS ☐	ALKALINITY ☐	FIELD NOTES
SP-1 (0-0.5')	1	11-11-19	11:50	S	1				X		X		X		X	X	X																									X			
SP-2 (0-0.5')	2		11:45																																										
SP-3 (0-0.5')	3		11:39																																										
SP-4 (0-0.5')	4		11:30																																										
SP-5 (0-0.5')	5		11:26																																										
SP-6 (0-0.5')	6		11:11																																										
SP-7 (0-0.5')	7		11:17																																										

TOTAL 7

RELINQUISHED BY:(Signature) DATE/TIME 11/12 10:00 RECEIVED BY: (Signature)

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

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

LABORATORY: PBGL

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

LABORATORY USE ONLY:
RECEIVING TEMP: -1.2 -0.2 THERM#: CF#12
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

Received by OCD: 5/4/2020 12:05:15 PM

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: Brunson Argo SWD-Chevron

Project Number: 19-0180-04

Location:

Lab Order Number: 9L04005

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-17-8

Report Date: 12/13/19

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

Project: Brunson Argo SWD-Chevron
Project Number: 19-0180-04
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP-6 @ (1.5'-3')	9L04005-01	Soil	12/02/19 13:23	12-04-2019 11:12
SP-6 @ (3.5'-5')	9L04005-02	Soil	12/02/19 13:29	12-04-2019 11:12
SP-7 @ (1.5'-3')	9L04005-03	Soil	12/02/19 14:14	12-04-2019 11:12
SP-7 @ (3.5'-5')	9L04005-04	Soil	12/02/19 14:15	12-04-2019 11:12
SP-7 @ (5'-5.5')	9L04005-05	Soil	12/02/19 14:16	12-04-2019 11:12
SP-2 @ (3.5'-5')	9L04005-06	Soil	12/03/19 10:50	12-04-2019 11:12
SP-2 @ (5'-8')	9L04005-07	Soil	12/03/19 10:57	12-04-2019 11:12
SP-1 @ (1.5-3')	9L04005-08	Soil	12/03/19 11:15	12-04-2019 11:12
SP-1 @ (3.5'-5')	9L04005-09	Soil	12/03/19 11:19	12-04-2019 11:12
SP-1 @ (5'-5.5')	9L04005-10	Soil	12/03/19 11:21	12-04-2019 11:12
SP-3 @ (1.5-3')	9L04005-11	Soil	12/03/19 11:43	12-04-2019 11:12
SP-3 @ (3.5'-5')	9L04005-12	Soil	12/03/19 11:45	12-04-2019 11:12
SP-3 @ (5'-5.5')	9L04005-13	Soil	12/03/19 11:51	12-04-2019 11:12
SP-4 @ (1.5-3')	9L04005-14	Soil	12/03/19 12:18	12-04-2019 11:12
SP-4 @ (3.5'-5')	9L04005-15	Soil	12/03/19 12:21	12-04-2019 11:12
SP-5 @ (1.5-3')	9L04005-16	Soil	12/03/19 12:49	12-04-2019 11:12
SP-5 @ (3.5'-5')	9L04005-17	Soil	12/03/19 12:53	12-04-2019 11:12

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Midland TX, 79710	Project Manager: Mark Larson	

SP-6 @ (1.5'-3')

9L04005-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*110 %*	*75-125*		*P9L0801*	*12/08/19*	*12/08/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*105 %*	*75-125*		*P9L0801*	*12/08/19*	*12/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**791**	1.06	mg/kg dry	1	P9L1107	12/11/19	12/12/19	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
>C12-C28	**712**	26.6	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
>C28-C35	**245**	26.6	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*107 %*	*70-130*		*P9L0502*	*12/05/19*	*12/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*127 %*	*70-130*		*P9L0502*	*12/05/19*	*12/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**957**	26.6	mg/kg dry	1	[CALC]	12/05/19	12/05/19	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-6 @ (3.5'-5')

9L04005-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**811**	1.09	mg/kg dry	1	P9L1107	12/11/19	12/12/19	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-7 @ (1.5'-3')

9L04005-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*111 %*	*75-125*		*P9L0801*	*12/08/19*	*12/08/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*105 %*	*75-125*		*P9L0801*	*12/08/19*	*12/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**185**	1.06	mg/kg dry	1	P9L1107	12/11/19	12/12/19	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
>C12-C28	**105**	26.6	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
>C28-C35	**67.7**	26.6	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*101 %*	*70-130*		*P9L0502*	*12/05/19*	*12/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*119 %*	*70-130*		*P9L0502*	*12/05/19*	*12/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**173**	26.6	mg/kg dry	1	[CALC]	12/05/19	12/05/19	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-7 @ (3.5'-5')

9L04005-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**105**	1.04	mg/kg dry	1	P9L1107	12/11/19	12/12/19	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-7 @ (5'-5.5')

9L04005-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**269**	5.81	mg/kg dry	5	P9L1107	12/11/19	12/12/19	EPA 300.0	
% Moisture	**14.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-2 @ (3.5'-5')

9L04005-06 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00125	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Toluene	ND	0.00125	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Ethylbenzene	ND	0.00125	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00250	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Xylene (o)	ND	0.00125	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*114 %*	*75-125*		*P9L0801*	*12/08/19*	*12/08/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*104 %*	*75-125*		*P9L0801*	*12/08/19*	*12/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**3380**	6.25	mg/kg dry	5	P9L1107	12/11/19	12/12/19	EPA 300.0	
% Moisture	**20.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	31.2	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
>C12-C28	**270**	31.2	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
>C28-C35	**56.8**	31.2	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*104 %*	*70-130*		*P9L0502*	*12/05/19*	*12/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*122 %*	*70-130*		*P9L0502*	*12/05/19*	*12/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**327**	31.2	mg/kg dry	1	[CALC]	12/05/19	12/05/19	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-2 @ (5'-8')

9L04005-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
% Moisture	**16.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-1 @ (1.5-3')

9L04005-08 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*102 %*	*75-125*		*P9L0801*	*12/08/19*	*12/08/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*108 %*	*75-125*		*P9L0801*	*12/08/19*	*12/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**3060**	5.56	mg/kg dry	5	P9L1107	12/11/19	12/12/19	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
>C12-C28	**110**	27.8	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
>C28-C35	**104**	27.8	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		*P9L0502*	*12/05/19*	*12/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*120 %*	*70-130*		*P9L0502*	*12/05/19*	*12/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**214**	27.8	mg/kg dry	1	[CALC]	12/05/19	12/05/19	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-1 @ (3.5'-5')

9L04005-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1770**	5.81	mg/kg dry	5	P9L1107	12/11/19	12/12/19	EPA 300.0	
% Moisture	**14.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-1 @ (5'-5.5')

9L04005-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**216**	1.18	mg/kg dry	1	P9L1107	12/11/19	12/12/19	EPA 300.0	
% Moisture	**15.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	

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SP-3 @ (1.5-3')

9L04005-11 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00125	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Toluene	ND	0.00125	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Ethylbenzene	ND	0.00125	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00250	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Xylene (o)	ND	0.00125	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*106 %*	*75-125*		*P9L0801*	*12/08/19*	*12/08/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*103 %*	*75-125*		*P9L0801*	*12/08/19*	*12/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2300**	6.25	mg/kg dry	5	P9L1107	12/11/19	12/12/19	EPA 300.0	
% Moisture	**20.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	31.2	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
>C12-C28	**871**	31.2	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
>C28-C35	**537**	31.2	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*108 %*	*70-130*		*P9L0502*	*12/05/19*	*12/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*129 %*	*70-130*		*P9L0502*	*12/05/19*	*12/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**1410**	31.2	mg/kg dry	1	[CALC]	12/05/19	12/05/19	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-3 @ (3.5'-5')

9L04005-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1190**	5.43	mg/kg dry	5	P9L1107	12/11/19	12/12/19	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	

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Midland TX, 79710	Project Manager: Mark Larson	

SP-3 @ (5'-5.5')

9L04005-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**407**	1.05	mg/kg dry	1	P9L1107	12/11/19	12/12/19	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	

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SP-4 @ (1.5-3')

9L04005-14 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00111	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Toluene	ND	0.00111	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Ethylbenzene	ND	0.00111	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00222	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Xylene (o)	ND	0.00111	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*108 %*	*75-125*		*P9L0801*	*12/08/19*	*12/08/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*97.2 %*	*75-125*		*P9L0801*	*12/08/19*	*12/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**101**	1.11	mg/kg dry	1	P9L1107	12/11/19	12/12/19	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
>C12-C28	**1260**	27.8	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
>C28-C35	**524**	27.8	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*104 %*	*70-130*		*P9L0502*	*12/05/19*	*12/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*123 %*	*70-130*		*P9L0502*	*12/05/19*	*12/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**1790**	27.8	mg/kg dry	1	[CALC]	12/05/19	12/05/19	calc	

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Larson & Associates, Inc.	Project: Brunson Argo SWD-Chevron	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

SP-4 @ (3.5'-5')

9L04005-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**252**	1.14	mg/kg dry	1	P9L1107	12/11/19	12/12/19	EPA 300.0	
% Moisture	**12.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	

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P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

SP-5 @ (1.5-3')

9L04005-16 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00106	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Toluene	ND	0.00106	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Ethylbenzene	ND	0.00106	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Xylene (p/m)	ND	0.00213	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Xylene (o)	ND	0.00106	mg/kg dry	1	P9L0801	12/08/19	12/08/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*104 %*	*75-125*		*P9L0801*	*12/08/19*	*12/08/19*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*112 %*	*75-125*		*P9L0801*	*12/08/19*	*12/08/19*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**103**	1.06	mg/kg dry	1	P9L1108	12/11/19	12/12/19	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
>C12-C28	**49.2**	26.6	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
>C28-C35	**38.3**	26.6	mg/kg dry	1	P9L0502	12/05/19	12/05/19	TPH 8015M	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		*P9L0502*	*12/05/19*	*12/05/19*	*TPH 8015M*	
Surrogate: o-Terphenyl		*122 %*	*70-130*		*P9L0502*	*12/05/19*	*12/05/19*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**87.5**	26.6	mg/kg dry	1	[CALC]	12/05/19	12/05/19	calc	

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P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

SP-5 @ (3.5'-5')

9L04005-17 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**546**	5.49	mg/kg dry	5	P9L1108	12/11/19	12/12/19	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P9L0501	12/05/19	12/05/19	ASTM D2216	

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P.O. Box 50685
Midland TX, 79710

Project: Brunson Argo SWD-Chevron
Project Number: 19-0180-04
Project Manager: Mark Larson

Fax: (432) 687-0456

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9L0801 - General Preparation (GC)										
Blank (P9L0801-BLK1)				Prepared & Analyzed: 12/08/19						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	*0.127*		*"*	*0.120*		*106*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.137*		*"*	*0.120*		*114*	*75-125*			
LCS (P9L0801-BS1)				Prepared & Analyzed: 12/08/19						
Benzene	0.101	0.00100	mg/kg wet	0.100		101	70-130			
Toluene	0.113	0.00100	"	0.100		113	70-130			
Ethylbenzene	0.115	0.00100	"	0.100		115	70-130			
Xylene (p/m)	0.239	0.00200	"	0.200		119	70-130			
Xylene (o)	0.112	0.00100	"	0.100		112	70-130			
Surrogate: 4-Bromofluorobenzene	*0.133*		*"*	*0.120*		*111*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.130*		*"*	*0.120*		*109*	*75-125*			
LCS Dup (P9L0801-BSD1)				Prepared & Analyzed: 12/08/19						
Benzene	0.103	0.00100	mg/kg wet	0.100		103	70-130	2.46	20	
Toluene	0.116	0.00100	"	0.100		116	70-130	2.95	20	
Ethylbenzene	0.114	0.00100	"	0.100		114	70-130	0.454	20	
Xylene (p/m)	0.235	0.00200	"	0.200		118	70-130	1.41	20	
Xylene (o)	0.118	0.00100	"	0.100		118	70-130	5.24	20	
Surrogate: 1,4-Difluorobenzene	*0.134*		*"*	*0.120*		*112*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.140*		*"*	*0.120*		*117*	*75-125*			
Calibration Blank (P9L0801-CCB1)				Prepared & Analyzed: 12/08/19						
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.132*		*"*	*0.120*		*110*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.125*		*"*	*0.120*		*104*	*75-125*			

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P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9L0801 - General Preparation (GC)										
Calibration Blank (P9L0801-CCB2)				Prepared & Analyzed: 12/08/19						
Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.136*		*"*	*0.120*		*113*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.123*		*"*	*0.120*		*102*	*75-125*			
Calibration Check (P9L0801-CCV1)				Prepared & Analyzed: 12/08/19						
Benzene	0.114	0.00100	mg/kg wet	0.100		114	80-120			
Toluene	0.113	0.00100	"	0.100		113	80-120			
Ethylbenzene	0.113	0.00100	"	0.100		113	80-120			
Xylene (p/m)	0.235	0.00200	"	0.200		118	80-120			
Xylene (o)	0.120	0.00100	"	0.100		120	80-120			
Surrogate: 4-Bromofluorobenzene	*0.132*		*"*	*0.120*		*110*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.123*		*"*	*0.120*		*103*	*75-125*			
Calibration Check (P9L0801-CCV2)				Prepared & Analyzed: 12/08/19						
Benzene	0.0823	0.00100	mg/kg wet	0.100		82.3	80-120			
Toluene	0.0932	0.00100	"	0.100		93.2	80-120			
Ethylbenzene	0.0924	0.00100	"	0.100		92.4	80-120			
Xylene (p/m)	0.206	0.00200	"	0.200		103	80-120			
Xylene (o)	0.109	0.00100	"	0.100		109	80-120			
Surrogate: 4-Bromofluorobenzene	*0.149*		*"*	*0.120*		*124*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.138*		*"*	*0.120*		*115*	*75-125*			
Calibration Check (P9L0801-CCV3)				Prepared: 12/08/19 Analyzed: 12/09/19						
Benzene	0.112	0.00100	mg/kg wet	0.100		112	80-120			
Toluene	0.119	0.00100	"	0.100		119	80-120			
Ethylbenzene	0.116	0.00100	"	0.100		116	80-120			
Xylene (p/m)	0.238	0.00200	"	0.200		119	80-120			
Xylene (o)	0.120	0.00100	"	0.100		120	80-120			
Surrogate: 4-Bromofluorobenzene	*0.134*		*"*	*0.120*		*111*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*0.130*		*"*	*0.120*		*108*	*75-125*			

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P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9L0801 - General Preparation (GC)										
Matrix Spike (P9L0801-MS1)		**Source: 9L05003-11**		Prepared & Analyzed: 12/08/19						
Benzene	0.0508	0.00103	mg/kg dry	0.103	ND	49.3	80-120			QM-07
Toluene	0.0569	0.00103	"	0.103	ND	55.2	80-120			QM-07
Ethylbenzene	0.0655	0.00103	"	0.103	ND	63.6	80-120			QM-07
Xylene (p/m)	0.120	0.00206	"	0.206	ND	58.4	80-120			QM-07
Xylene (o)	0.0615	0.00103	"	0.103	ND	59.7	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	*0.133*		*"*	*0.124*		*108*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.148*		*"*	*0.124*		*119*	*75-125*			
Matrix Spike Dup (P9L0801-MSD1)		**Source: 9L05003-11**		Prepared: 12/08/19 Analyzed: 12/09/19						
Benzene	0.0691	0.00103	mg/kg dry	0.103	ND	67.0	80-120	30.6	20	QM-07
Toluene	0.0754	0.00103	"	0.103	ND	73.2	80-120	28.0	20	QM-07
Ethylbenzene	0.0899	0.00103	"	0.103	ND	87.2	80-120	31.3	20	QM-07
Xylene (p/m)	0.165	0.00206	"	0.206	ND	79.9	80-120	31.1	20	QM-07
Xylene (o)	0.0884	0.00103	"	0.103	ND	85.8	80-120	35.9	20	QM-07
Surrogate: 1,4-Difluorobenzene	*0.133*		*"*	*0.124*		*107*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*0.142*		*"*	*0.124*		*114*	*75-125*			

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Midland TX, 79710

Project: Brunson Argo SWD-Chevron
Project Number: 19-0180-04
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Fax: (432) 687-0456

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 P9L0501 - * DEFAULT PREP *** **										
Blank (P9L0501-BLK1)				Prepared & Analyzed: 12/05/19						
% Moisture	ND	0.1	%							
Duplicate (P9L0501-DUP1)		**Source: 9L04004-01**		Prepared & Analyzed: 12/05/19						
% Moisture	12.0	0.1	%		18.0			40.0	20	
Duplicate (P9L0501-DUP2)		**Source: 9L04002-21**		Prepared & Analyzed: 12/05/19						
% Moisture	18.0	0.1	%		9.0			66.7	20	
Duplicate (P9L0501-DUP4)		**Source: 9L04011-22**		Prepared & Analyzed: 12/05/19						
% Moisture	6.0	0.1	%		5.0			18.2	20	
Batch P9L1107 - * DEFAULT PREP *** **										
Blank (P9L1107-BLK1)				Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	ND	0.100	mg/kg wet							
LCS (P9L1107-BS1)				Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	398	1.00	mg/kg wet	400		99.5	80-120			
LCS Dup (P9L1107-BSD1)				Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	401	1.00	mg/kg wet	400		100	80-120	0.829	20	
Calibration Blank (P9L1107-CCB1)				Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	0.00		mg/kg wet							
Calibration Blank (P9L1107-CCB2)				Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	0.00		mg/kg wet							

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Project: Brunson Argo SWD-Chevron
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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9L1107 - * DEFAULT PREP *** **										
Calibration Check (P9L1107-CCV1)				Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	19.4		mg/kg	20.0		97.0	0-200			
Calibration Check (P9L1107-CCV2)				Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	19.0		mg/kg	20.0		95.2	0-200			
Calibration Check (P9L1107-CCV3)				Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	18.9		mg/kg	20.0		94.6	0-200			
Matrix Spike (P9L1107-MS1)		**Source: 9L04003-02**		Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	7480	12.5	mg/kg dry	1250	6170	105	80-120			
Matrix Spike (P9L1107-MS2)		**Source: 9L04005-05**		Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	806	5.81	mg/kg dry	581	269	92.4	80-120			
Matrix Spike Dup (P9L1107-MSD1)		**Source: 9L04003-02**		Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	7650	12.5	mg/kg dry	1250	6170	118	80-120	2.13	20	
Matrix Spike Dup (P9L1107-MSD2)		**Source: 9L04005-05**		Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	775	5.81	mg/kg dry	581	269	87.1	80-120	3.89	20	
Batch P9L1108 - * DEFAULT PREP *** **										
Blank (P9L1108-BLK1)				Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	ND	1.00	mg/kg wet							
LCS (P9L1108-BS1)				Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	390	1.00	mg/kg wet	400		97.6	80-120			

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Project: Brunson Argo SWD-Chevron
Project Number: 19-0180-04
Project Manager: Mark Larson

Fax: (432) 687-0456

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 P9L1108 - * DEFAULT PREP *** **										
LCS Dup (P9L1108-BSD1)				Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	392	1.00	mg/kg wet	400		98.0	80-120	0.493	20	
Calibration Blank (P9L1108-CCB1)				Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	0.00		mg/kg wet							
Calibration Blank (P9L1108-CCB2)				Prepared: 12/11/19 Analyzed: 12/13/19						
Chloride	0.00		mg/kg wet							
Calibration Check (P9L1108-CCV1)				Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	18.9		mg/kg	20.0		94.6	0-200			
Calibration Check (P9L1108-CCV2)				Prepared: 12/11/19 Analyzed: 12/13/19						
Chloride	18.9		mg/kg	20.0		94.3	0-200			
Calibration Check (P9L1108-CCV3)				Prepared: 12/11/19 Analyzed: 12/13/19						
Chloride	19.1		mg/kg	20.0		95.3	0-200			
Matrix Spike (P9L1108-MS1)		**Source: 9L04005-17**		Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	1070	5.49	mg/kg dry	549	546	95.6	80-120			
Matrix Spike (P9L1108-MS2)		**Source: 9L03004-03**		Prepared: 12/11/19 Analyzed: 12/13/19						
Chloride	1150	11.0	mg/kg dry	1100	349	72.8	80-120			QM-07
Matrix Spike Dup (P9L1108-MSD1)		**Source: 9L04005-17**		Prepared: 12/11/19 Analyzed: 12/12/19						
Chloride	1060	5.49	mg/kg dry	549	546	93.9	80-120	0.871	20	
Matrix Spike Dup (P9L1108-MSD2)		**Source: 9L03004-03**		Prepared: 12/11/19 Analyzed: 12/13/19						
Chloride	1130	11.0	mg/kg dry	1100	349	71.5	80-120	1.19	20	QM-07

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Midland TX, 79710

Project: Brunson Argo SWD-Chevron
Project Number: 19-0180-04
Project Manager: Mark Larson

Fax: (432) 687-0456

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 P9L0502 - TX 1005										
Blank (P9L0502-BLK1)				Prepared & Analyzed: 12/05/19						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*103*		*"*	*100*		*103*	*70-130*			
Surrogate: o-Terphenyl	*59.7*		*"*	*50.0*		*119*	*70-130*			
LCS (P9L0502-BS1)				Prepared & Analyzed: 12/05/19						
C6-C12	909	25.0	mg/kg wet	1000		90.9	75-125			
>C12-C28	1050	25.0	"	1000		105	75-125			
Surrogate: 1-Chlorooctane	*113*		*"*	*100*		*113*	*70-130*			
Surrogate: o-Terphenyl	*55.5*		*"*	*50.0*		*111*	*70-130*			
LCS Dup (P9L0502-BSD1)				Prepared & Analyzed: 12/05/19						
C6-C12	919	25.0	mg/kg wet	1000		91.9	75-125	1.11	20	
>C12-C28	1040	25.0	"	1000		104	75-125	1.21	20	
Surrogate: 1-Chlorooctane	*110*		*"*	*100*		*110*	*70-130*			
Surrogate: o-Terphenyl	*55.9*		*"*	*50.0*		*112*	*70-130*			
Calibration Blank (P9L0502-CCB1)				Prepared & Analyzed: 12/05/19						
C6-C12	16.5		mg/kg wet							
>C12-C28	6.08		"							
Surrogate: 1-Chlorooctane	*102*		*"*	*100*		*102*	*70-130*			
Surrogate: o-Terphenyl	*59.7*		*"*	*50.0*		*119*	*70-130*			
Calibration Blank (P9L0502-CCB2)				Prepared & Analyzed: 12/05/19						
C6-C12	14.1		mg/kg wet							
>C12-C28	10.6		"							
Surrogate: 1-Chlorooctane	*99.4*		*"*	*100*		*99.4*	*70-130*			
Surrogate: o-Terphenyl	*58.1*		*"*	*50.0*		*116*	*70-130*			

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.

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

Project: Brunson Argo SWD-Chevron
Project Number: 19-0180-04
Project Manager: Mark Larson

Fax: (432) 687-0456

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 P9L0502 - TX 1005										
Calibration Check (P9L0502-CCV1)				Prepared & Analyzed: 12/05/19						
C6-C12	436	25.0	mg/kg wet	500		87.3	85-115			
>C12-C28	491	25.0	"	500		98.2	85-115			
Surrogate: 1-Chlorooctane	*103*		"	*100*		*103*	*70-130*			
Surrogate: o-Terphenyl	*54.4*		"	*50.0*		*109*	*70-130*			
Calibration Check (P9L0502-CCV2)				Prepared & Analyzed: 12/05/19						
C6-C12	453	25.0	mg/kg wet	500		90.5	85-115			
>C12-C28	460	25.0	"	500		91.9	85-115			
Surrogate: 1-Chlorooctane	*99.2*		"	*100*		*99.2*	*70-130*			
Surrogate: o-Terphenyl	*50.5*		"	*50.0*		*101*	*70-130*			
Matrix Spike (P9L0502-MS1)	**Source: 9L04003-04**			Prepared & Analyzed: 12/05/19						
C6-C12	890	27.5	mg/kg dry	1100	16.5	79.4	75-125			
>C12-C28	982	27.5	"	1100	ND	89.4	75-125			
Surrogate: 1-Chlorooctane	*111*		"	*110*		*101*	*70-130*			
Surrogate: o-Terphenyl	*56.2*		"	*54.9*		*102*	*70-130*			
Matrix Spike Dup (P9L0502-MSD1)	**Source: 9L04003-04**			Prepared & Analyzed: 12/05/19						
C6-C12	901	27.5	mg/kg dry	1100	16.5	80.5	75-125	1.36	20	
>C12-C28	997	27.5	"	1100	ND	90.8	75-125	1.55	20	
Surrogate: 1-Chlorooctane	*113*		"	*110*		*103*	*70-130*			
Surrogate: o-Terphenyl	*58.0*		"	*54.9*		*106*	*70-130*			

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Larson & Associates, Inc.	Project: Brunson Argo SWD-Chevron	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 19-0180-04	
Midland TX, 79710	Project Manager: Mark Larson	

Notes and Definitions

ROI	Received on Ice
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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: 12/13/2019

Brent Barron, Laboratory Director/Technical Director

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№ 0583

CHAIN-OF-CUSTODY

Page 29 of 30

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

Data Reported to:

DATE: 12/3/2019 PAGE 1 OF 2

PO#:

LAB WORK ORDER#: 9L04005

PROJECT LOCATION OR NAME: ~~Apache~~ Brunson - Argo Stop, Chevron

LAI PROJECT #: 19-0180-04 COLLECTOR: RN/EC

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 ☐ 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
SP-6(1.5-3')	1	12/2/19	13:23	S	1				X		X	run BTEX & TPH on shallow depths only. Cl- for all samples.
SP6(3.5-5')	2		13:29								X	
SP-7(1.5-3')	3		14:14								X	
SP-7(3.5-5')	4		14:15								X	
SP-7(5-5.5')	5		14:16								X RD	
SP-2(3.5-5')	6	12/3/19	10:50								X	
SP-2(5-8')	7		10:57								X RD	
SP-1(1.5-3')	8		11:15								X	
SP-1(3.5-5')	9		11:19								X RD	
SP-1(5-5.5')	10		11:21									
SP-3(1.5-3')	11		11:43								X	
SP-3(3.5-5')	12		11:45									
SP-3(5-5.5')	13		11:51								X RD	
SP-4(1.5-3')	14		12:18								X	
SP-4(3.5-5')	15		12:21									
TOTAL	15											← hold until results

RELINQUISHED BY:(Signature) Rachel Owen DATE/TIME 12-4-19/11:12 RECEIVED BY: (Signature)

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

RELINQUISHED BY:(Signature) DATE/TIME 12-4-19/11:12 RECEIVED BY: (Signature) Teresa Bedsoe

LABORATORY: PBEL

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

LABORATORY USE ONLY:
RECEIVING TEMP: -2.2 -1.2 CF+1 THERM#: L2
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Received by OCD: 5/4/2020 12:06:15 PM

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Nº 0584

CHAIN-OF-CUSTODY

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

DATE: 12/3/19 PAGE 2 OF 2

PO#: LAB WORK ORDER#: 9L04005

PROJECT LOCATION OR NAME: Branson-Argo SWD, Chevron

LAI PROJECT #: 19-0180-04 COLLECTOR: RN/EC

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☐ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TBLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDES ☐ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
SP-5(1.5-3')	16	12/3/19	12:49	S	1				X		X		X	X	X														X	
SP-5(3.5-5')	17	1	12:53	1	1				1		1		1	1	1														1	
TOTAL		2																												

RELINQUISHED BY:(Signature) Rachel Owen DATE/TIME 12-4-19/11:12 RECEIVED BY: (Signature)

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

RELINQUISHED BY:(Signature) DATE/TIME 12-4-19/11:12 RECEIVED BY: (Signature) Tasha Bedsaul

LABORATORY: PBL

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

LABORATORY USE ONLY:
RECEIVING TEMP: -2.2 -1.1 THERM#: CF#1 L2
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Received by OCD: 5/4/2020 12:06:15 PM

Certificate of Analysis Summary 654785

Larson and Associates, Inc., Midland, TX

Project Name: Bruson Argo SWD

Project Id: 19-0180-04
Contact: Mark Larson
Project Location:

Date Received in Lab: Fri 03.06.2020 09:48
Report Date: 03.16.2020 17:46
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	654785-001		654785-002		654785-003		654785-004		654785-005		654785-006	
	Field Id:	SP-1 (5')		SP-1 (10')		SP-1 (15')		SP-1 (20')		SP-2 (5')		SP-2 (10')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	03.03.2020 09:49		03.03.2020 09:51		03.03.2020 09:54		03.03.2020 09:59		03.03.2020 10:10		03.03.2020 10:12	
TPH by SW8015 Mod	***Extracted:***	03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00	
	Analyzed:	03.06.2020 14:33		03.06.2020 13:29		03.06.2020 14:53		03.06.2020 15:14		03.06.2020 15:35		03.06.2020 15:56	
	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	<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)		250	50.0	<50.0	50.0	<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		77.1	50.0	<50.0	50.0	<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9
Total TPH		327	50.0	<50.0	50.0	<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9

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Holly Taylor
Project Manager

Certificate of Analysis Summary 654785

Larson and Associates, Inc., Midland, TX

Project Name: Bruson Argo SWD

Project Id: 19-0180-04
Contact: Mark Larson
Project Location:

Date Received in Lab: Fri 03.06.2020 09:48
Report Date: 03.16.2020 17:46
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	654785-007		654785-008		654785-009		654785-010		654785-011		654785-012	
	Field Id:	SP-2 (15')		SP-2 (20')		SP-3 (5')		SP-3 (10')		SP-3 (15')		SP-3 (20')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	03.03.2020 10:15		03.03.2020 10:19		03.03.2020 10:31		03.03.2020 10:34		03.03.2020 10:37		03.03.2020 10:40	
TPH by SW8015 Mod	***Extracted:***	03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00	
	Analyzed:	03.06.2020 16:17		03.06.2020 16:38		03.06.2020 16:58		03.06.2020 17:19		03.06.2020 18:01		03.06.2020 18:21	
	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	<49.8	49.8	<50.0	50.0
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8	<50.0	50.0
Total TPH		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8	<50.0	50.0

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Holly Taylor
Project Manager

Certificate of Analysis Summary 654785

Larson and Associates, Inc., Midland, TX

Project Name: Bruson Argo SWD

Project Id: 19-0180-04
Contact: Mark Larson
Project Location:

Date Received in Lab: Fri 03.06.2020 09:48
Report Date: 03.16.2020 17:46
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	654785-013		654785-014		654785-015		654785-016		654785-017		654785-018	
	Field Id:	SP-4 (5')		SP-4 (10')		SP-4 (15')		SP-4 (20')		SP-6 (2')		SP-6 (5')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	03.03.2020 10:56		03.03.2020 10:57		03.03.2020 11:00		03.03.2020 11:02		03.03.2020 12:14		03.03.2020 12:17	
BTEX by EPA 8021B	***Extracted:***									03.12.2020 15:00		03.12.2020 15:00	
	Analyzed:									03.13.2020 08:23		03.13.2020 08:44	
	Units/RL:									mg/kg	RL	mg/kg	RL
Benzene										<0.00199	0.00199	<0.00199	0.00199
Toluene										<0.00199	0.00199	<0.00199	0.00199
Ethylbenzene										<0.00199	0.00199	<0.00199	0.00199
m,p-Xylenes										<0.00398	0.00398	<0.00398	0.00398
o-Xylene										<0.00199	0.00199	<0.00199	0.00199
Total Xylenes										<0.00199	0.00199	<0.00199	0.00199
Total BTEX										<0.00199	0.00199	<0.00199	0.00199
Chloride by EPA 300	***Extracted:***									03.06.2020 14:10		03.06.2020 14:10	
	Analyzed:									03.06.2020 17:56		03.06.2020 18:15	
	Units/RL:									mg/kg	RL	mg/kg	RL
Chloride										751	5.03	630	5.02
TPH by SW8015 Mod	***Extracted:***	03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00	
	Analyzed:	03.06.2020 18:43		03.06.2020 19:04		03.06.2020 19:25		03.06.2020 19:46		03.06.2020 20:07		03.06.2020 20:27	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0
Diesel Range Organics (DRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0
Total TPH		<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0

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Holly Taylor
Project Manager

Certificate of Analysis Summary 654785

Larson and Associates, Inc., Midland, TX

Project Name: Bruson Argo SWD

Project Id: 19-0180-04
Contact: Mark Larson
Project Location:

Date Received in Lab: Fri 03.06.2020 09:48
Report Date: 03.16.2020 17:46
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	654785-019		654785-020		654785-021		654785-022		654785-023		654785-024	
	Field Id:	SP-6 (10')		SP-6 (15')		SP-6 (20')		SP-7 (5')		SP-7 (10')		SP-7 (15')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	03.03.2020 12:19		03.03.2020 12:21		03.03.2020 12:24		03.03.2020 12:31		03.03.2020 12:35		03.03.2020 12:38	
BTEX by EPA 8021B	***Extracted:***	03.12.2020 15:00		03.12.2020 15:00		03.12.2020 15:00							
	Analyzed:	03.13.2020 09:04		03.13.2020 09:24		03.13.2020 10:46							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201						
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201						
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201						
m,p-Xylenes		<0.00400	0.00400	<0.00399	0.00399	<0.00402	0.00402						
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201						
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201						
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201						
Chloride by EPA 300	***Extracted:***	03.06.2020 14:10		03.06.2020 14:10		03.06.2020 14:10							
	Analyzed:	03.06.2020 18:21		03.06.2020 18:27		03.06.2020 18:34							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Chloride		213	4.97	119	5.00	104	5.03						
TPH by SW8015 Mod	***Extracted:***	03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00	
	Analyzed:	03.06.2020 20:48		03.06.2020 21:09		03.06.2020 13:29		03.06.2020 14:33		03.06.2020 14:53		03.06.2020 15:14	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9
Diesel Range Organics (DRO)		<50.0	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9
Total TPH		<50.0	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9

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Holly Taylor
Project Manager

Certificate of Analysis Summary 654785

Larson and Associates, Inc., Midland, TX

Project Name: Bruson Argo SWD

Project Id: 19-0180-04
Contact: Mark Larson
Project Location:

Date Received in Lab: Fri 03.06.2020 09:48
Report Date: 03.16.2020 17:46
Project Manager: Holly Taylor

Analysis Requested													
	Lab Id:	654785-025		654785-026		654785-027		654785-028		654785-029		654785-030	
	Field Id:	SP-7 (20')		SP-8 (0.5')		SP-8 (1')		SP-9 (0.5')		SP-9 (1')		SP-10 (0.5')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	03.03.2020 12:42		03.05.2020 10:18		03.05.2020 10:21		03.05.2020 10:30		03.05.2020 10:37		03.05.2020 10:46	
BTEX by EPA 8021B	***Extracted:***			03.12.2020 15:00		03.12.2020 15:00		03.12.2020 15:00		03.12.2020 15:00		03.12.2020 15:00	
	Analyzed:			03.13.2020 11:07		03.13.2020 11:27		03.13.2020 11:47		03.13.2020 12:08		03.13.2020 12:28	
	Units/RL:			mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene				<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199
Toluene				<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene				<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes				<0.00401	0.00401	<0.00398	0.00398	<0.00396	0.00396	<0.00399	0.00399	<0.00398	0.00398
o-Xylene				<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes				<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199
Total BTEX				<0.00200	0.00200	<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199
Chloride by EPA 300	***Extracted:***			03.06.2020 14:10		03.06.2020 14:10		03.06.2020 14:10		03.06.2020 14:10		03.06.2020 14:10	
	Analyzed:			03.06.2020 18:40		03.06.2020 18:46		03.06.2020 19:11		03.06.2020 19:05		03.06.2020 19:30	
	Units/RL:			mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride				<5.00	5.00	5.60	4.98	5.60	5.03	7.05	5.01	5.63	5.01
TPH by SW8015 Mod	***Extracted:***	03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00	
	Analyzed:	03.06.2020 15:35		03.06.2020 15:56		03.06.2020 16:17		03.07.2020 08:40		03.07.2020 09:01		03.06.2020 17:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0
Diesel Range Organics (DRO)		<49.8	49.8	<50.0	50.0	<50.0	50.0	155	50.0	219	49.8	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<50.0	50.0	<50.0	50.0	63.9	50.0	78.9	49.8	<50.0	50.0
Total TPH		<49.8	49.8	<50.0	50.0	<50.0	50.0	219	50.0	298	49.8	<50.0	50.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Holly Taylor
Project Manager

Certificate of Analysis Summary 654785

Larson and Associates, Inc., Midland, TX

Project Name: Bruson Argo SWD

Project Id: 19-0180-04
Contact: Mark Larson
Project Location:

Date Received in Lab: Fri 03.06.2020 09:48
Report Date: 03.16.2020 17:46
Project Manager: Holly Taylor

Analysis Requested											
	Lab Id:	654785-031		654785-032		654785-033					
	Field Id:	SP-10 (1')		SP-11 (0.5')		SP-11 (1')					
	Depth:										
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	03.05.2020 00:00		03.05.2020 00:00		03.05.2020 00:00					
BTEX by EPA 8021B	***Extracted:***	03.12.2020 15:00		03.12.2020 15:00		03.12.2020 15:00					
	Analyzed:	03.13.2020 12:49		03.13.2020 13:09		03.13.2020 13:29					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198				
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198				
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198				
m,p-Xylenes		<0.00399	0.00399	<0.00400	0.00400	<0.00397	0.00397				
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198				
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198				
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198				
Chloride by EPA 300	***Extracted:***	03.06.2020 14:10		03.06.2020 14:10		03.06.2020 14:10					
	Analyzed:	03.06.2020 19:36		03.06.2020 19:42		03.06.2020 19:49					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		<4.99	4.99	<5.02	5.02	<4.97	4.97				
TPH by SW8015 Mod	***Extracted:***	03.06.2020 11:00		03.06.2020 11:00		03.06.2020 11:00					
	Analyzed:	03.06.2020 18:01		03.06.2020 18:21		03.06.2020 18:43					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<49.9	49.9	<49.9	49.9				
Diesel Range Organics (DRO)		<49.9	49.9	<49.9	49.9	<49.9	49.9				
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.9	49.9	<49.9	49.9				
Total TPH		<49.9	49.9	<49.9	49.9	<49.9	49.9				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Holly Taylor
Project Manager

Analytical Report 654785

for

Larson and Associates, Inc.

Project Manager: Mark Larson

Bruson Argo SWD

19-0180-04

03.16.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

03.16.2020

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

Reference: XENCO Report No(s): **654785**
Bruson Argo SWD
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) 654785. 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. 654785 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,

Holly Taylor

Holly Taylor
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1 (5')	S	03.03.2020 09:49		654785-001
SP-1 (10')	S	03.03.2020 09:51		654785-002
SP-1 (15')	S	03.03.2020 09:54		654785-003
SP-1 (20')	S	03.03.2020 09:59		654785-004
SP-2 (5')	S	03.03.2020 10:10		654785-005
SP-2 (10')	S	03.03.2020 10:12		654785-006
SP-2 (15')	S	03.03.2020 10:15		654785-007
SP-2 (20')	S	03.03.2020 10:19		654785-008
SP-3 (5')	S	03.03.2020 10:31		654785-009
SP-3 (10')	S	03.03.2020 10:34		654785-010
SP-3 (15')	S	03.03.2020 10:37		654785-011
SP-3 (20')	S	03.03.2020 10:40		654785-012
SP-4 (5')	S	03.03.2020 10:56		654785-013
SP-4 (10')	S	03.03.2020 10:57		654785-014
SP-4 (15')	S	03.03.2020 11:00		654785-015
SP-4 (20')	S	03.03.2020 11:02		654785-016
SP-6 (2')	S	03.03.2020 12:14		654785-017
SP-6 (5')	S	03.03.2020 12:17		654785-018
SP-6 (10')	S	03.03.2020 12:19		654785-019
SP-6 (15')	S	03.03.2020 12:21		654785-020
SP-6 (20')	S	03.03.2020 12:24		654785-021
SP-7 (5')	S	03.03.2020 12:31		654785-022
SP-7 (10')	S	03.03.2020 12:35		654785-023
SP-7 (15')	S	03.03.2020 12:38		654785-024
SP-7 (20')	S	03.03.2020 12:42		654785-025
SP-8 (0.5')	S	03.05.2020 10:18		654785-026
SP-8 (1')	S	03.05.2020 10:21		654785-027
SP-9 (0.5')	S	03.05.2020 10:30		654785-028
SP-9 (1')	S	03.05.2020 10:37		654785-029
SP-10 (0.5')	S	03.05.2020 10:46		654785-030
SP-10 (1')	S	03.05.2020 00:00		654785-031
SP-11 (0.5')	S	03.05.2020 00:00		654785-032
SP-11 (1')	S	03.05.2020 00:00		654785-033

CASE NARRATIVE

Client Name: Larson and Associates, Inc.

Project Name: Bruson Argo SWD

Project ID: *19-0180-04*
Work Order Number(s): *654785*

Report Date: *03.16.2020*
Date Received: *03.06.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3119455 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id:	**SP-1 (5')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-001	Date Collected:	03.03.2020 09:49		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 14:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	**250**	50.0	mg/kg	03.06.2020 14:33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**77.1**	50.0	mg/kg	03.06.2020 14:33		1
Total TPH	PHC635	**327**	50.0	mg/kg	03.06.2020 14:33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.06.2020 14:33	
o-Terphenyl	84-15-1	99	%	70-135	03.06.2020 14:33	

Certificate of Analytical Results 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id:	**SP-1 (10')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-002	Date Collected:	03.03.2020 09:51		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 13:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 13:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 13:29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 13:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.06.2020 13:29	
o-Terphenyl	84-15-1	99	%	70-135	03.06.2020 13:29	

Certificate of Analytical Results 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id:	**SP-1 (15')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-003	Date Collected:	03.03.2020 09:54		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 14:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 14:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 14:53	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 14:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.06.2020 14:53	
o-Terphenyl	84-15-1	104	%	70-135	03.06.2020 14:53	

Certificate of Analytical Results 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id:	**SP-1 (20')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-004	Date Collected:	03.03.2020 09:59		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 15:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 15:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 15:14	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 15:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.06.2020 15:14	
o-Terphenyl	84-15-1	97	%	70-135	03.06.2020 15:14	

Certificate of Analytical Results 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id:	**SP-2 (5')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-005	Date Collected:	03.03.2020 10:10		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 15:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 15:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 15:35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 15:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.06.2020 15:35	
o-Terphenyl	84-15-1	100	%	70-135	03.06.2020 15:35	

Certificate of Analytical Results 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id:	**SP-2 (10')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-006	Date Collected:	03.03.2020 10:12		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.06.2020 15:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.06.2020 15:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.06.2020 15:56	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.06.2020 15:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.06.2020 15:56	
o-Terphenyl	84-15-1	99	%	70-135	03.06.2020 15:56	

Certificate of Analytical Results 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id:	**SP-2 (15')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-007	Date Collected:	03.03.2020 10:15		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 16:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 16:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 16:17	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 16:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	03.06.2020 16:17	
o-Terphenyl	84-15-1	96	%	70-135	03.06.2020 16:17	

Certificate of Analytical Results 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id:	**SP-2 (20')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-008	Date Collected:	03.03.2020 10:19		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 16:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 16:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 16:38	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 16:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.06.2020 16:38	
o-Terphenyl	84-15-1	99	%	70-135	03.06.2020 16:38	

Certificate of Analytical Results 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id:	**SP-3 (5')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-009	Date Collected:	03.03.2020 10:31		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.06.2020 16:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.06.2020 16:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.06.2020 16:58	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.06.2020 16:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.06.2020 16:58	
o-Terphenyl	84-15-1	98	%	70-135	03.06.2020 16:58	

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Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id:	**SP-3 (10')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-010	Date Collected:	03.03.2020 10:34		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 17:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 17:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 17:19	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 17:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	03.06.2020 17:19	
o-Terphenyl	84-15-1	103	%	70-135	03.06.2020 17:19	

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Bruson Argo SWD

Sample Id:	**SP-3 (15')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-011	Date Collected:	03.03.2020 10:37		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.06.2020 18:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.06.2020 18:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.06.2020 18:01	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.06.2020 18:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.06.2020 18:01	
o-Terphenyl	84-15-1	99	%	70-135	03.06.2020 18:01	

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Bruson Argo SWD

Sample Id:	**SP-3 (20')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-012	Date Collected:	03.03.2020 10:40		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 18:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 18:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 18:21	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 18:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	03.06.2020 18:21	
o-Terphenyl	84-15-1	102	%	70-135	03.06.2020 18:21	

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Bruson Argo SWD

Sample Id:	**SP-4 (5')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-013	Date Collected:	03.03.2020 10:56		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.06.2020 18:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.06.2020 18:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.06.2020 18:43	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.06.2020 18:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.06.2020 18:43	
o-Terphenyl	84-15-1	99	%	70-135	03.06.2020 18:43	

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Bruson Argo SWD

Sample Id:	**SP-4 (10')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-014	Date Collected:	03.03.2020 10:57		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 19:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 19:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 19:04	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 19:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.06.2020 19:04	
o-Terphenyl	84-15-1	98	%	70-135	03.06.2020 19:04	

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Bruson Argo SWD

Sample Id:	**SP-4 (15')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-015	Date Collected:	03.03.2020 11:00		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 19:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 19:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 19:25	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 19:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.06.2020 19:25	
o-Terphenyl	84-15-1	99	%	70-135	03.06.2020 19:25	

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Bruson Argo SWD

Sample Id:	**SP-4 (20')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-016	Date Collected:	03.03.2020 11:02		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.06.2020 19:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.06.2020 19:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.06.2020 19:46	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.06.2020 19:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	03.06.2020 19:46	
o-Terphenyl	84-15-1	102	%	70-135	03.06.2020 19:46	

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Bruson Argo SWD

Sample Id:	**SP-6 (2')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-017	Date Collected:	03.03.2020 12:14		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.06.2020 14:10	Basis:	Wet Weight
Seq Number:	3118838				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**751**	5.03	mg/kg	03.06.2020 17:56		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118863				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.06.2020 20:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.06.2020 20:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.06.2020 20:07	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.06.2020 20:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.06.2020 20:07	
o-Terphenyl	84-15-1	99	%	70-135	03.06.2020 20:07	

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Bruson Argo SWD

Sample Id:	**SP-6 (2')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-017	Date Collected:	03.03.2020 12:14		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.12.2020 15:00	Basis:	Wet Weight
Seq Number:	3119455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.13.2020 08:23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.13.2020 08:23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.13.2020 08:23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.13.2020 08:23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.13.2020 08:23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.13.2020 08:23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.13.2020 08:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.13.2020 08:23	
1,4-Difluorobenzene	540-36-3	104	%	70-130	03.13.2020 08:23	

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Bruson Argo SWD

Sample Id: **SP-6 (5')** Matrix: Soil Date Received:03.06.2020 09:48

Lab Sample Id: 654785-018 Date Collected: 03.03.2020 12:17

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.06.2020 14:10 Basis: Wet Weight

Seq Number: 3118838

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**630**	5.02	mg/kg	03.06.2020 18:15		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.06.2020 11:00 Basis: Wet Weight

Seq Number: 3118863

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 20:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 20:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 20:27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 20:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.06.2020 20:27	
o-Terphenyl	84-15-1	99	%	70-135	03.06.2020 20:27	

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Bruson Argo SWD

Sample Id:	**SP-6 (5')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-018	Date Collected:	03.03.2020 12:17		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.12.2020 15:00	Basis:	Wet Weight
Seq Number:	3119455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.13.2020 08:44	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.13.2020 08:44	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.13.2020 08:44	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.13.2020 08:44	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.13.2020 08:44	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.13.2020 08:44	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.13.2020 08:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	03.13.2020 08:44	
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.13.2020 08:44	

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Bruson Argo SWD

Sample Id: **SP-6 (10')** Matrix: Soil Date Received:03.06.2020 09:48

Lab Sample Id: 654785-019 Date Collected: 03.03.2020 12:19

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.06.2020 14:10 Basis: Wet Weight

Seq Number: 3118838

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**213**	4.97	mg/kg	03.06.2020 18:21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.06.2020 11:00 Basis: Wet Weight

Seq Number: 3118863

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 20:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 20:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 20:48	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 20:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	03.06.2020 20:48	
o-Terphenyl	84-15-1	98	%	70-135	03.06.2020 20:48	

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Bruson Argo SWD

Sample Id:	**SP-6 (10')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-019	Date Collected:	03.03.2020 12:19		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.12.2020 15:00	Basis:	Wet Weight
Seq Number:	3119455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.13.2020 09:04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.13.2020 09:04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.13.2020 09:04	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.13.2020 09:04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.13.2020 09:04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.13.2020 09:04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.13.2020 09:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	03.13.2020 09:04	
4-Bromofluorobenzene	460-00-4	111	%	70-130	03.13.2020 09:04	

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Bruson Argo SWD

Sample Id: **SP-6 (15')** Matrix: Soil Date Received:03.06.2020 09:48

Lab Sample Id: 654785-020 Date Collected: 03.03.2020 12:21

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.06.2020 14:10 Basis: Wet Weight

Seq Number: 3118838

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**119**	5.00	mg/kg	03.06.2020 18:27		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.06.2020 11:00 Basis: Wet Weight

Seq Number: 3118863

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.06.2020 21:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.06.2020 21:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.06.2020 21:09	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.06.2020 21:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.06.2020 21:09	
o-Terphenyl	84-15-1	99	%	70-135	03.06.2020 21:09	

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Bruson Argo SWD

Sample Id:	**SP-6 (15')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-020	Date Collected:	03.03.2020 12:21		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.12.2020 15:00	Basis:	Wet Weight
Seq Number:	3119455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.13.2020 09:24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.13.2020 09:24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.13.2020 09:24	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.13.2020 09:24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.13.2020 09:24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.13.2020 09:24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.13.2020 09:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	03.13.2020 09:24	
4-Bromofluorobenzene	460-00-4	112	%	70-130	03.13.2020 09:24	

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Bruson Argo SWD

Sample Id: **SP-6 (20')** Matrix: Soil Date Received:03.06.2020 09:48

Lab Sample Id: 654785-021 Date Collected: 03.03.2020 12:24

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.06.2020 14:10 Basis: Wet Weight

Seq Number: 3118838

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**104**	5.03	mg/kg	03.06.2020 18:34		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.06.2020 11:00 Basis: Wet Weight

Seq Number: 3118866

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 13:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 13:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 13:29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 13:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	03.06.2020 13:29	
o-Terphenyl	84-15-1	107	%	70-135	03.06.2020 13:29	

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Bruson Argo SWD

Sample Id:	**SP-6 (20')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-021	Date Collected:	03.03.2020 12:24		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.12.2020 15:00	Basis:	Wet Weight
Seq Number:	3119455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.13.2020 10:46	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.13.2020 10:46	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.13.2020 10:46	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.13.2020 10:46	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.13.2020 10:46	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.13.2020 10:46	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.13.2020 10:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	03.13.2020 10:46	
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.13.2020 10:46	

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Bruson Argo SWD

Sample Id:	**SP-7 (5')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-022	Date Collected:	03.03.2020 12:31		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118866				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 14:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 14:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 14:33	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 14:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	03.06.2020 14:33	
o-Terphenyl	84-15-1	101	%	70-135	03.06.2020 14:33	

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Bruson Argo SWD

Sample Id:	**SP-7 (10')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-023	Date Collected:	03.03.2020 12:35		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118866				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.06.2020 14:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.06.2020 14:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.06.2020 14:53	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.06.2020 14:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	03.06.2020 14:53	
o-Terphenyl	84-15-1	113	%	70-135	03.06.2020 14:53	

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Bruson Argo SWD

Sample Id:	**SP-7 (15')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-024	Date Collected:	03.03.2020 12:38		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118866				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.06.2020 15:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.06.2020 15:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.06.2020 15:14	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.06.2020 15:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	03.06.2020 15:14	
o-Terphenyl	84-15-1	105	%	70-135	03.06.2020 15:14	

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Bruson Argo SWD

Sample Id:	**SP-7 (20')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-025	Date Collected:	03.03.2020 12:42		
Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118866				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.06.2020 15:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.06.2020 15:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.06.2020 15:35	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.06.2020 15:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	03.06.2020 15:35	
o-Terphenyl	84-15-1	107	%	70-135	03.06.2020 15:35	

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Bruson Argo SWD

Sample Id: **SP-8 (0.5')** Matrix: Soil Date Received:03.06.2020 09:48

Lab Sample Id: 654785-026 Date Collected: 03.05.2020 10:18

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.06.2020 14:10 Basis: Wet Weight

Seq Number: 3118838

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	03.06.2020 18:40	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.06.2020 11:00 Basis: Wet Weight

Seq Number: 3118866

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 15:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 15:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 15:56	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 15:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	03.06.2020 15:56	
o-Terphenyl	84-15-1	105	%	70-135	03.06.2020 15:56	

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Bruson Argo SWD

Sample Id:	**SP-8 (0.5')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-026	Date Collected:	03.05.2020 10:18		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.12.2020 15:00	Basis:	Wet Weight
Seq Number:	3119455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.13.2020 11:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.13.2020 11:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.13.2020 11:07	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.13.2020 11:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.13.2020 11:07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.13.2020 11:07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.13.2020 11:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	03.13.2020 11:07	
1,4-Difluorobenzene	540-36-3	103	%	70-130	03.13.2020 11:07	

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Bruson Argo SWD

Sample Id:	**SP-8 (1')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-027	Date Collected:	03.05.2020 10:21		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.06.2020 14:10	Basis:	Wet Weight
Seq Number:	3118838				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.60**	4.98	mg/kg	03.06.2020 18:46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118866				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 16:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 16:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 16:17	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 16:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	03.06.2020 16:17	
o-Terphenyl	84-15-1	100	%	70-135	03.06.2020 16:17	

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Bruson Argo SWD

Sample Id:	**SP-8 (1')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-027	Date Collected:	03.05.2020 10:21		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.12.2020 15:00	Basis:	Wet Weight
Seq Number:	3119455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.13.2020 11:27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.13.2020 11:27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.13.2020 11:27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.13.2020 11:27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.13.2020 11:27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.13.2020 11:27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.13.2020 11:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	03.13.2020 11:27	
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.13.2020 11:27	

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Bruson Argo SWD

Sample Id:	**SP-9 (0.5')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-028	Date Collected:	03.05.2020 10:30		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.06.2020 14:10	Basis:	Wet Weight
Seq Number:	3118838				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.60**	5.03	mg/kg	03.06.2020 19:11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118866				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.07.2020 08:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	**155**	50.0	mg/kg	03.07.2020 08:40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**63.9**	50.0	mg/kg	03.07.2020 08:40		1
Total TPH	PHC635	**219**	50.0	mg/kg	03.07.2020 08:40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	03.07.2020 08:40	
o-Terphenyl	84-15-1	101	%	70-135	03.07.2020 08:40	

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Bruson Argo SWD

Sample Id:	**SP-9 (0.5')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-028	Date Collected:	03.05.2020 10:30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.12.2020 15:00	Basis:	Wet Weight
Seq Number:	3119455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.13.2020 11:47	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.13.2020 11:47	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.13.2020 11:47	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.13.2020 11:47	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.13.2020 11:47	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	03.13.2020 11:47	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.13.2020 11:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	03.13.2020 11:47	
1,4-Difluorobenzene	540-36-3	103	%	70-130	03.13.2020 11:47	

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Bruson Argo SWD

Sample Id:	**SP-9 (1')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-029	Date Collected:	03.05.2020 10:37		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.06.2020 14:10	Basis:	Wet Weight
Seq Number:	3118838				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.05**	5.01	mg/kg	03.06.2020 19:05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118866				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.07.2020 09:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	**219**	49.8	mg/kg	03.07.2020 09:01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**78.9**	49.8	mg/kg	03.07.2020 09:01		1
Total TPH	PHC635	**298**	49.8	mg/kg	03.07.2020 09:01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	03.07.2020 09:01	
o-Terphenyl	84-15-1	104	%	70-135	03.07.2020 09:01	

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Bruson Argo SWD

Sample Id:	**SP-9 (1')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-029	Date Collected:	03.05.2020 10:37		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.12.2020 15:00	Basis:	Wet Weight
Seq Number:	3119455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.13.2020 12:08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.13.2020 12:08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.13.2020 12:08	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.13.2020 12:08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.13.2020 12:08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.13.2020 12:08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.13.2020 12:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	03.13.2020 12:08	
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.13.2020 12:08	

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Bruson Argo SWD

Sample Id:	**SP-10 (0.5')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-030	Date Collected:	03.05.2020 10:46		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.06.2020 14:10	Basis:	Wet Weight
Seq Number:	3118838				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.63**	5.01	mg/kg	03.06.2020 19:30		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.06.2020 11:00	Basis:	Wet Weight
Seq Number:	3118866				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.06.2020 17:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.06.2020 17:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.06.2020 17:19	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.06.2020 17:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	03.06.2020 17:19	
o-Terphenyl	84-15-1	105	%	70-135	03.06.2020 17:19	

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Bruson Argo SWD

Sample Id:	**SP-10 (0.5')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-030	Date Collected:	03.05.2020 10:46		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.12.2020 15:00	Basis:	Wet Weight
Seq Number:	3119455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.13.2020 12:28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.13.2020 12:28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.13.2020 12:28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.13.2020 12:28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.13.2020 12:28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.13.2020 12:28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.13.2020 12:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.13.2020 12:28	
4-Bromofluorobenzene	460-00-4	110	%	70-130	03.13.2020 12:28	

Certificate of Analytical Results 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id: **SP-10 (1')** Matrix: Soil Date Received:03.06.2020 09:48

Lab Sample Id: 654785-031 Date Collected: 03.05.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.06.2020 14:10 Basis: Wet Weight

Seq Number: 3118838

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	03.06.2020 19:36	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.06.2020 11:00 Basis: Wet Weight

Seq Number: 3118866

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.06.2020 18:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.06.2020 18:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.06.2020 18:01	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.06.2020 18:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	03.06.2020 18:01	
o-Terphenyl	84-15-1	103	%	70-135	03.06.2020 18:01	

Certificate of Analytical Results 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id:	**SP-10 (1')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-031	Date Collected:	03.05.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.12.2020 15:00	Basis:	Wet Weight
Seq Number:	3119455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.13.2020 12:49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.13.2020 12:49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.13.2020 12:49	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.13.2020 12:49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.13.2020 12:49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.13.2020 12:49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.13.2020 12:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	03.13.2020 12:49	
1,4-Difluorobenzene	540-36-3	105	%	70-130	03.13.2020 12:49	

Certificate of Analytical Results 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id: **SP-11 (0.5')** Matrix: Soil Date Received:03.06.2020 09:48

Lab Sample Id: 654785-032 Date Collected: 03.05.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.06.2020 14:10 Basis: Wet Weight

Seq Number: 3118838

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.02	5.02	mg/kg	03.06.2020 19:42	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.06.2020 11:00 Basis: Wet Weight

Seq Number: 3118866

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.06.2020 18:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.06.2020 18:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.06.2020 18:21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.06.2020 18:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	03.06.2020 18:21	
o-Terphenyl	84-15-1	108	%	70-135	03.06.2020 18:21	

Certificate of Analytical Results 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id:	**SP-11 (0.5')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-032	Date Collected:	03.05.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.12.2020 15:00	Basis:	Wet Weight
Seq Number:	3119455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.13.2020 13:09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.13.2020 13:09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.13.2020 13:09	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.13.2020 13:09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.13.2020 13:09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.13.2020 13:09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.13.2020 13:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	03.13.2020 13:09	
1,4-Difluorobenzene	540-36-3	105	%	70-130	03.13.2020 13:09	

Certificate of Analytical Results 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id: **SP-11 (1')** Matrix: Soil Date Received:03.06.2020 09:48

Lab Sample Id: 654785-033 Date Collected: 03.05.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 03.06.2020 14:10 Basis: Wet Weight

Seq Number: 3118838

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	03.06.2020 19:49	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.06.2020 11:00 Basis: Wet Weight

Seq Number: 3118866

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.06.2020 18:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.06.2020 18:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.06.2020 18:43	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.06.2020 18:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	03.06.2020 18:43	
o-Terphenyl	84-15-1	104	%	70-135	03.06.2020 18:43	

Certificate of Analytical Results 654785

Larson and Associates, Inc., Midland, TX

Bruson Argo SWD

Sample Id:	**SP-11 (1')**	Matrix:	Soil	Date Received:	03.06.2020 09:48
Lab Sample Id:	654785-033	Date Collected:	03.05.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.12.2020 15:00	Basis:	Wet Weight
Seq Number:	3119455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.13.2020 13:29	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.13.2020 13:29	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.13.2020 13:29	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	03.13.2020 13:29	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.13.2020 13:29	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	03.13.2020 13:29	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.13.2020 13:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	03.13.2020 13:29	
1,4-Difluorobenzene	540-36-3	103	%	70-130	03.13.2020 13:29	

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 654785

Larson and Associates, Inc.

Bruson Argo SWD

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3118838 — Matrix: Solid — Date Prep: 03.06.2020
MB Sample Id: 7698257-1-BLK — LCS Sample Id: 7698257-1-BKS — LCSD Sample Id: 7698257-1-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	252	101	251	100	90-110	0	20	mg/kg	03.06.2020 17:06	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3118838 — Matrix: Soil — Date Prep: 03.06.2020
Parent Sample Id: 654763-024 — MS Sample Id: 654763-024 S — MSD Sample Id: 654763-024 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.95	249	263	102	263	102	90-110	0	20	mg/kg	03.06.2020 17:25	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3118838 — Matrix: Soil — Date Prep: 03.06.2020
Parent Sample Id: 654785-027 — MS Sample Id: 654785-027 S — MSD Sample Id: 654785-027 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5.60	249	261	103	261	103	90-110	0	20	mg/kg	03.06.2020 18:52	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3118863 — Matrix: Solid — Date Prep: 03.06.2020
MB Sample Id: 7698311-1-BLK — LCS Sample Id: 7698311-1-BKS — LCSD Sample Id: 7698311-1-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)	<15.0	1000	960	96	1000	100	70-135	4	20	mg/kg	03.06.2020 12:47	
Diesel Range Organics (DRO)	<15.0	1000	1040	104	1070	107	70-135	3	20	mg/kg	03.06.2020 12:47	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		94		99		70-135	%	03.06.2020 12:47
o-Terphenyl	96		93		97		70-135	%	03.06.2020 12:47

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3118866 — Matrix: Solid — Date Prep: 03.06.2020
MB Sample Id: 7698312-1-BLK — LCS Sample Id: 7698312-1-BKS — LCSD Sample Id: 7698312-1-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)	<15.0	1000	965	97	981	98	70-135	2	20	mg/kg	03.06.2020 12:47	
Diesel Range Organics (DRO)	<15.0	1000	969	97	975	98	70-135	1	20	mg/kg	03.06.2020 12:47	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		99		102		70-135	%	03.06.2020 12:47
o-Terphenyl	98		97		103		70-135	%	03.06.2020 12:47

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 654785

Larson and Associates, Inc.

Bruson Argo SWD

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3118863 Matrix: Solid Date Prep: 03.06.2020
MB Sample Id: 7698311-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.06.2020 12:26	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3118866 Matrix: Solid Date Prep: 03.06.2020
MB Sample Id: 7698312-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.06.2020 12:26	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3118863 Matrix: Soil Date Prep: 03.06.2020
Parent Sample Id: 654785-002 MS Sample Id: 654785-002 S MSD Sample Id: 654785-002 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)	<15.0	997	997	100	1000	100	70-135	0	20	mg/kg	03.06.2020 13:51	
Diesel Range Organics (DRO)	23.0	997	1090	107	1100	108	70-135	1	20	mg/kg	03.06.2020 13:51	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		100		70-135	%	03.06.2020 13:51
o-Terphenyl	105		101		70-135	%	03.06.2020 13:51

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3118866 Matrix: Soil Date Prep: 03.06.2020
Parent Sample Id: 654785-021 MS Sample Id: 654785-021 S MSD Sample Id: 654785-021 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)	16.4	998	977	96	977	96	70-135	0	20	mg/kg	03.06.2020 13:51	
Diesel Range Organics (DRO)	17.8	998	999	98	990	98	70-135	1	20	mg/kg	03.06.2020 13:51	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		104		70-135	%	03.06.2020 13:51
o-Terphenyl	105		103		70-135	%	03.06.2020 13:51

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 654785

Larson and Associates, Inc.

Bruson Argo SWD

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3119455 Matrix: Solid Date Prep: 03.12.2020
MB Sample Id: 7698769-1-BLK LCS Sample Id: 7698769-1-BKS LCSD Sample Id: 7698769-1-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	0.102	102	0.0960	96	70-130	6	35	mg/kg	03.13.2020 03:59	
Toluene	<0.00200	0.100	0.0933	93	0.0888	89	70-130	5	35	mg/kg	03.13.2020 03:59	
Ethylbenzene	<0.00200	0.100	0.101	101	0.0955	96	70-130	6	35	mg/kg	03.13.2020 03:59	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.185	93	70-130	5	35	mg/kg	03.13.2020 03:59	
o-Xylene	<0.00200	0.100	0.0999	100	0.0949	95	70-130	5	35	mg/kg	03.13.2020 03:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		101		100		70-130	%	03.13.2020 03:59
4-Bromofluorobenzene	100		108		103		70-130	%	03.13.2020 03:59

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3119455 Matrix: Soil Date Prep: 03.12.2020
Parent Sample Id: 655102-007 MS Sample Id: 655102-007 S MSD Sample Id: 655102-007 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	0.0864	87	0.0851	85	70-130	2	35	mg/kg	03.13.2020 04:39	
Toluene	<0.00198	0.0992	0.0753	76	0.0748	75	70-130	1	35	mg/kg	03.13.2020 04:39	
Ethylbenzene	<0.00198	0.0992	0.0803	81	0.0809	81	70-130	1	35	mg/kg	03.13.2020 04:39	
m,p-Xylenes	<0.00397	0.198	0.158	80	0.159	80	70-130	1	35	mg/kg	03.13.2020 04:39	
o-Xylene	<0.00198	0.0992	0.0841	85	0.0847	85	70-130	1	35	mg/kg	03.13.2020 04:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		70-130	%	03.13.2020 04:39
4-Bromofluorobenzene	107		105		70-130	%	03.13.2020 04:39

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

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

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

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№ 0982

CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 3/16/20 PAGE 1 OF 3

PO#: LAB WORK ORDER#: 654-785

PROJECT LOCATION OR NAME: Bryson Argo SWD

LAI PROJECT #: 19-0180-04 COLLECTOR: RO

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES	FIELD NOTES
SP-1 (5')		3/3/20	9:49	S	1				X		X X X	
(10')			9:51									
(15')			9:54									
(20')			9:59									
SP-2 (5')			10:10									
(10')			10:12									
(15')			10:15									
(20')			10:19									
SP-3 (5')			10:31								X X X	
(10')			10:34									
(15')			10:37									
(20')			10:40									
SP-4 (5')			10:50								X X X	
(10')			10:57									
(15')			11:00									

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 ☐

TOTAL 15

RELINQUISHED BY:(Signature) Rachel Owen DATE/TIME 3/16/20 RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) Brenda Bolin DATE/TIME 3/16 9:15 RECEIVED BY: (Signature) Fleanor

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature) 3/16 948

LABORATORY: Xenco

TURN AROUND TIME
NORMAL ☐
1 DAY ☐
2 DAY ☐
OTHER ☒ 4days

LABORATORY USE ONLY:
RECEIVING TEMP: -1.2/-1.5 THERM#: R9
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Received by OCD: 5/4/2020 12:05:15 PM
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№ 0983

CHAIN-OF-CUSTODY

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

DATE: 3/6/2020 PAGE 2 OF 3
PO#: LAB WORK ORDER#: 654785
PROJECT LOCATION OR NAME: Brunson Argo SWD
LAI PROJECT #: 19-0180-04 COLLECTOR: RD / DS

Data Reported to:

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST

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

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	OIL - MOD 8015 ☒	VOC 8260 ☐	SVOC 8270 ☐	PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TBLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐	pH ☐ HEXAVALENT CHROMIUM ☐ CYANIDE ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
SP-4 (20')		3/3/20	11:02	S	1				X																						
SP-6 (2')			12:14								X																				
SP-6 (5')			12:17								X																				
SP-6 (10')			12:19																												
SP-6 (15')			12:21																												
SP-6 (20')			12:24																												
SP-7 (5')			12:31																												
SP-7 (10')			12:35																												
SP-7 (15')			12:38																												
SP-7 (20')			12:42																												
SP-8 (0.5')		3/5/20	10:18								X																				
SP-9 (1')			10:21								X																				
SP-9 (0.5')			10:30								X																				
SP-9 (1')			10:37								X																				
SP-10 (0.5')			10:46								X																				
TOTAL 15																															

RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
Rachel Owen	3/6/20	
	9:48	

LABORATORY: Xenco

TURN AROUND TIME
NORMAL ☐
1 DAY ☐
2 DAY ☐
OTHER ☒ 4 days

LABORATORY USE ONLY:
RECEIVING TEMP: 1.2/1.5 THERM#: R9
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # ____
☐ HAND DELIVERED

Received by OCD: 5/4/2020 12:05:15 PM
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Nº 0984

CHAIN-OF-CUSTODY

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

Data Reported to:

DATE: 3/6/2020 PAGE 3 OF 3

PO#: LAB WORK ORDER#: 654785

PROJECT LOCATION OR NAME: Brunson Arroyo SWD

LAI PROJECT #: 19-0180-04 COLLECTOR: RD/DS

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 ☐	pH ☐	CYANIDE ☐	HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐	PECHLORATE ☐	CHLORIDES ☒	ANIONS ☐	ALKALINITY ☐	FIELD NOTES
SP-10 (1')		3/5/20		S	1				X		X				X	X	X																								X			
SP-11 (0.5')		1		1	1				1		1				1	1	1																								1			
SP-11 (1')		1		1	1				1		1				1	1	1																								1			

TOTAL 3

RELINQUISHED BY:(Signature) Rachel Owen DATE/TIME 3/6/20 RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME 3/6 9:48 RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature) 3/6/20

LABORATORY: XENCO

TURN AROUND TIME
NORMAL ☐
1 DAY ☐
2 DAY ☐
OTHER ☒ 4days

LABORATORY USE ONLY:
RECEIVING TEMP: -1.2/-1.5 THERM#: R9
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Received by OCD: 5/4/2020 12:05:15 PM
Final 1.000
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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Date/ Time Received: 03.06.2020 09.48.00 AM

Work Order #: 654785

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)?	-1.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Alexis Jaime Date: 03.06.2020

Checklist reviewed by: Holly Taylor Date: 03.16.2020

Certificate of Analysis Summary 656184

Larson and Associates, Inc., Midland, TX

Project Name: Brunson Argo SWD

Project Id: 19-0180-04
Contact: Mark Larson
Project Location:

Date Received in Lab: Thu 03.19.2020 09:49
Report Date: 03.23.2020 15:10
Project Manager: Holly Taylor

Analysis Requested									
	Lab Id:	656184-001		656184-002					
	Field Id:	SP-12 (0-0.5')		SP-12 (0.5-1')					
	Depth:								
	Matrix:	SOIL		SOIL					
	Sampled:	03.18.2020 10:57		03.18.2020 11:03					
BTEX by EPA 8021B	***Extracted:***	03.20.2020 14:30		03.20.2020 14:30					
	Analyzed:	03.21.2020 00:26		03.21.2020 00:46					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00198	0.00198	<0.00200	0.00200				
Toluene		<0.00198	0.00198	<0.00200	0.00200				
Ethylbenzene		<0.00198	0.00198	<0.00200	0.00200				
m,p-Xylenes		<0.00396	0.00396	<0.00399	0.00399				
o-Xylene		<0.00198	0.00198	<0.00200	0.00200				
Total Xylenes		<0.00198	0.00198	<0.00200	0.00200				
Total BTEX		<0.00198	0.00198	<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	03.19.2020 14:00		03.19.2020 14:00					
	Analyzed:	03.19.2020 14:46		03.19.2020 15:05					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		<4.98	4.98	<5.02	5.02				
TPH by SW8015 Mod	***Extracted:***	03.20.2020 11:00		03.20.2020 11:00					
	Analyzed:	03.20.2020 19:42		03.20.2020 20:03					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.0	50.0				
Diesel Range Organics (DRO)		<49.8	49.8	64.9	50.0				
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<50.0	50.0				
Total TPH		<49.8	49.8	64.9	50.0				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Holly Taylor
Project Manager

Analytical Report 656184

for

Larson and Associates, Inc.

Project Manager: Mark Larson

Brunson Argo SWD

19-0180-04

03.23.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

03.23.2020

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

Reference: XENCO Report No(s): **656184**
Brunson Argo SWD
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) 656184. 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. 656184 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,

Holly Taylor

Holly Taylor
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 656184

Larson and Associates, Inc., Midland, TX

Brunson Argo SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-12 (0-0.5')	S	03.18.2020 10:57		656184-001
SP-12 (0.5-1')	S	03.18.2020 11:03		656184-002

CASE NARRATIVE

Client Name: Larson and Associates, Inc.

Project Name: Brunson Argo SWD

Project ID: *19-0180-04*
Work Order Number(s): *656184*

Report Date: *03.23.2020*
Date Received: *03.19.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120570 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 656184

Larson and Associates, Inc., Midland, TX

Brunson Argo SWD

Sample Id: **SP-12 (0-0.5')** Matrix: Soil Date Received:03.19.2020 09:49

Lab Sample Id: 656184-001 Date Collected: 03.18.2020 10:57

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 03.19.2020 14:00 Basis: Wet Weight

Seq Number: 3120328

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	03.19.2020 14:46	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 03.20.2020 11:00 Basis: Wet Weight

Seq Number: 3120514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.20.2020 19:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.20.2020 19:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.20.2020 19:42	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.20.2020 19:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	03.20.2020 19:42	
o-Terphenyl	84-15-1	101	%	70-135	03.20.2020 19:42	

Certificate of Analytical Results 656184

Larson and Associates, Inc., Midland, TX

Brunson Argo SWD

Sample Id:	**SP-12 (0-0.5')**	Matrix:	Soil	Date Received:	03.19.2020 09:49
Lab Sample Id:	656184-001	Date Collected:	03.18.2020 10:57		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.20.2020 14:30	Basis:	Wet Weight
Seq Number:	3120570				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.21.2020 00:26	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.21.2020 00:26	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.21.2020 00:26	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.21.2020 00:26	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.21.2020 00:26	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	03.21.2020 00:26	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.21.2020 00:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	03.21.2020 00:26	
1,4-Difluorobenzene	540-36-3	100	%	70-130	03.21.2020 00:26	

Certificate of Analytical Results 656184

Larson and Associates, Inc., Midland, TX

Brunson Argo SWD

Sample Id:	**SP-12 (0.5-1')**	Matrix:	Soil	Date Received:	03.19.2020 09:49
Lab Sample Id:	656184-002	Date Collected:	03.18.2020 11:03		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	03.19.2020 14:00	Basis:	Wet Weight
Seq Number:	3120328				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.02	5.02	mg/kg	03.19.2020 15:05	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	03.20.2020 11:00	Basis:	Wet Weight
Seq Number:	3120514				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.20.2020 20:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	**64.9**	50.0	mg/kg	03.20.2020 20:03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.20.2020 20:03	U	1
Total TPH	PHC635	**64.9**	50.0	mg/kg	03.20.2020 20:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	03.20.2020 20:03	
o-Terphenyl	84-15-1	100	%	70-135	03.20.2020 20:03	

Certificate of Analytical Results 656184

Larson and Associates, Inc., Midland, TX

Brunson Argo SWD

Sample Id:	**SP-12 (0.5-1')**	Matrix:	Soil	Date Received:	03.19.2020 09:49
Lab Sample Id:	656184-002	Date Collected:	03.18.2020 11:03		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	03.20.2020 14:30	Basis:	Wet Weight
Seq Number:	3120570				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.21.2020 00:46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.21.2020 00:46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.21.2020 00:46	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.21.2020 00:46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.21.2020 00:46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.21.2020 00:46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.21.2020 00:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	03.21.2020 00:46	
1,4-Difluorobenzene	540-36-3	98	%	70-130	03.21.2020 00:46	

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 656184

Larson and Associates, Inc.

Brunson Argo SWD

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120328 — Matrix: Solid — Date Prep: 03.19.2020
MB Sample Id: 7699294-1-BLK — LCS Sample Id: 7699294-1-BKS — LCSD Sample Id: 7699294-1-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	246	98	245	98	90-110	0	20	mg/kg	03.19.2020 14:34	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120328 — Matrix: Soil — Date Prep: 03.19.2020
Parent Sample Id: 656184-001 — MS Sample Id: 656184-001 S — MSD Sample Id: 656184-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.45	249	256	102	256	102	90-110	0	20	mg/kg	03.19.2020 14:53	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3120328 — Matrix: Soil — Date Prep: 03.19.2020
Parent Sample Id: 656203-025 — MS Sample Id: 656203-025 S — MSD Sample Id: 656203-025 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	144	250	397	101	399	102	90-110	1	20	mg/kg	03.19.2020 16:21	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120514 — Matrix: Solid — Date Prep: 03.20.2020
MB Sample Id: 7699386-1-BLK — LCS Sample Id: 7699386-1-BKS — LCSD Sample Id: 7699386-1-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	840	84	822	82	70-135	2	20	mg/kg	03.20.2020 12:21	
Diesel Range Organics (DRO)	<50.0	1000	864	86	862	86	70-135	0	20	mg/kg	03.20.2020 12:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	77		78		77		70-135	%	03.20.2020 12:21
o-Terphenyl	84		84		83		70-135	%	03.20.2020 12:21

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3120514 — Matrix: Solid — Date Prep: 03.20.2020
MB Sample Id: 7699386-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.20.2020 12:00	

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 656184

Larson and Associates, Inc.

Brunson Argo SWD

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3120514 Matrix: Soil Date Prep: 03.20.2020
Parent Sample Id: 656204-021 MS Sample Id: 656204-021 S MSD Sample Id: 656204-021 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)	<49.9	997	839	84	878	88	70-135	5	20	mg/kg	03.20.2020 13:25	
Diesel Range Organics (DRO)	<49.9	997	890	89	953	95	70-135	7	20	mg/kg	03.20.2020 13:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	85		88		70-135	%	03.20.2020 13:25
o-Terphenyl	90		96		70-135	%	03.20.2020 13:25

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3120570 Matrix: Solid Date Prep: 03.20.2020
MB Sample Id: 7699502-1-BLK LCS Sample Id: 7699502-1-BKS LCSD Sample Id: 7699502-1-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	0.107	107	0.0913	91	70-130	16	35	mg/kg	03.20.2020 15:15	
Toluene	<0.00200	0.100	0.108	108	0.0906	91	70-130	18	35	mg/kg	03.20.2020 15:15	
Ethylbenzene	<0.00200	0.100	0.111	111	0.0925	93	70-130	18	35	mg/kg	03.20.2020 15:15	
m,p-Xylenes	<0.00400	0.200	0.218	109	0.182	91	70-130	18	35	mg/kg	03.20.2020 15:15	
o-Xylene	<0.00200	0.100	0.109	109	0.0911	91	70-130	18	35	mg/kg	03.20.2020 15:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		100		98		70-130	%	03.20.2020 15:15
4-Bromofluorobenzene	94		100		100		70-130	%	03.20.2020 15:15

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3120570 Matrix: Soil Date Prep: 03.20.2020
Parent Sample Id: 655881-024 MS Sample Id: 655881-024 S MSD Sample Id: 655881-024 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	0.0850	85	0.0826	83	70-130	3	35	mg/kg	03.20.2020 15:56	
Toluene	<0.00200	0.0998	0.0847	85	0.0824	82	70-130	3	35	mg/kg	03.20.2020 15:56	
Ethylbenzene	<0.00200	0.0998	0.0854	86	0.0824	82	70-130	4	35	mg/kg	03.20.2020 15:56	
m,p-Xylenes	<0.00399	0.200	0.170	85	0.165	83	70-130	3	35	mg/kg	03.20.2020 15:56	
o-Xylene	<0.00200	0.0998	0.0851	85	0.0826	83	70-130	3	35	mg/kg	03.20.2020 15:56	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		96		70-130	%	03.20.2020 15:56
4-Bromofluorobenzene	101		98		70-130	%	03.20.2020 15:56

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

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№ 1126

1056184

CHAIN-OF-CUSTODY

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

DATE: 3/19/2020 PAGE 1 OF 1

PO#: LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Bunson Argo SWD

LAI PROJECT #: 19-0180-04 COLLECTOR: RO

Data Reported to:

TRRP report? ☐ Yes ☒ No

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

TIME ZONE: Time zone/State: MST

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 ☐	pH ☐	CYANIDE ☐	HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐	PECHLORATE ☐	CHLORIDE ☒	ANIONS ☐	ALKALINITY ☐	FIELD NOTES
SP-12 (0-0.5')		3/18/20	1057	S	1				X		X				X	X	X																									X			
SP-12 (0.5-1')		"	1103	S	1				X		↓				1	1	1																									1			
TOTAL					2																																									

RELINQUISHED BY:(Signature) Rachel Owen DATE/TIME 3-19-20 / 949 RECEIVED BY:(Signature) PBU

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 ☒ Rush!
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 0.6/0.3 THERM#: R9
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Received by OCD: 5/4/2020 12:05:15 PM

Final 1.000

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Date/ Time Received: 03.19.2020 09.49.00 AM

Work Order #: 656184

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 03.19.2020

Brianna Teel

Checklist reviewed by: Holly Taylor Date: 03.23.2020

Holly Taylor

Appendix B

BH-1 Soil Log

BORING RECORD

3-3-20 3-5-20

Start: 13:15 10:05

Finish: 13:42 11:51

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG
	0	Silty Clay, 2.5YR, 5/6, Red Well Sorted	CL	
	5			
	10	Silt, 2.5YR, 6/6, Light Red, Well Sorted	ML	
	15			
	20	2.5YR, 8/2, Subrounded Caliche Inclusions, 0.5-5mm in Diameter, Pinkish White		
	25			
	30	Silty Sand, 2.5YR, 6/6, Light Red	ML	
	35			
	40			
	45			
	50	Subrounded Clast Inclusions, 0.5-3mm in Diameter		
	55	Well Sorted		

PID READING

PPM X 1

2 4 6 8 10 12 14 16 18

SAMPLE

NUMBER	PID READING	RECOVERY	DEPTH
			5
			10
			15
			20
			25
			30
			35
			40
			45
			50
			55

REMARKS

BACKGROUND PID READING

SOIL : _____ PPM

SOIL : _____ PPM

ONE CONTINUOUS AUGER SAMPLER

STANDARD PENETRATION TEST

UNDISTURBED SAMPLE

WATER TABLE (24 HRS)

WATER TABLE (TIME OF BORING)

LABORATORY TEST LOCATION

PENETROMETER (TONS/ SQ. FT)

NR NO RECOVERY

JOB NUMBER : Chevron/ 19-0180-04

HOLE DIAMETER : 2"

LOCATION : Brunson Argo SWD

LAI GEOLOGIST : R. Owen

DRILLING CONTRACTOR : SDI

DRILLING METHOD : Air Rotary

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 3-3-2020 & 3-5-2020

BORING NUMBER : BH-1

BORING RECORD

3-3-20 3-5-20

Start: 13:15 10:05

Finish: 13:42 11:51

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG
	60–65	2.5YR, 5/6, Red	ML	
Depth to GW: 73.64' After 72 Hours	65–75			
	75–80	Sand, 2.5YR, 5/6,Fine to Medium, Well Sorted, Red	SP	
	80–85			
	85–90			
	90–95			
	95–100	TD: 93.15'		

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

SAMPLE: NUMBER | PID READING | RECOVERY | DEPTH (1, 5, 10, 15, 20, 25, 30, 35, 40)

REMARKS: BACKGROUND PID READING
SOIL : _____ PPM
SOIL : _____ PPM

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

JOB NUMBER : Chevron/ 19-0180-04
HOLE DIAMETER : 2"
LOCATION : Brunson Argo SWD
LAI GEOLOGIST : R. Owen
DRILLING CONTRACTOR : SDI
DRILLING METHOD : Air Rotary

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 3-3-2020 & 3-5-2020

BORING NUMBER : BH-1

Appendix C

Photographs

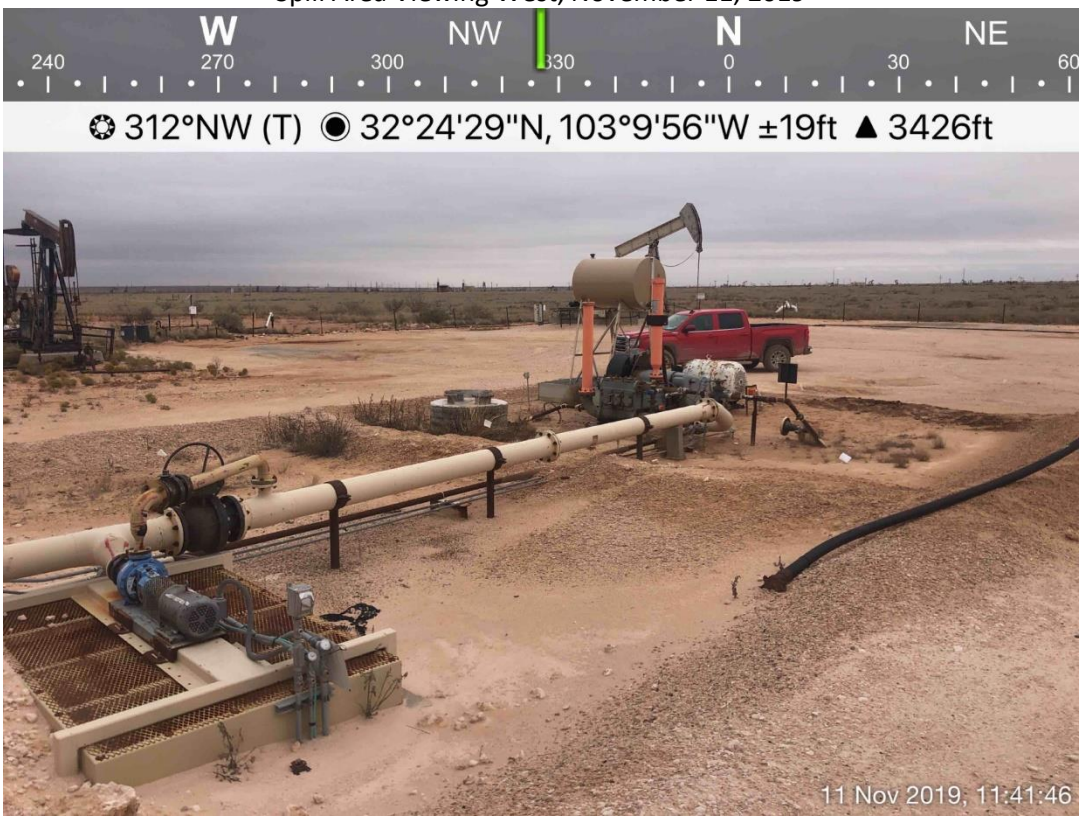
nVV2003739963
Chevron USA, Inc., Brunson Argo SWD
5/1/2020

Facility Sign, Viewing South, November 11, 2019

Spill Area Viewing Southeast, November 11, 2019

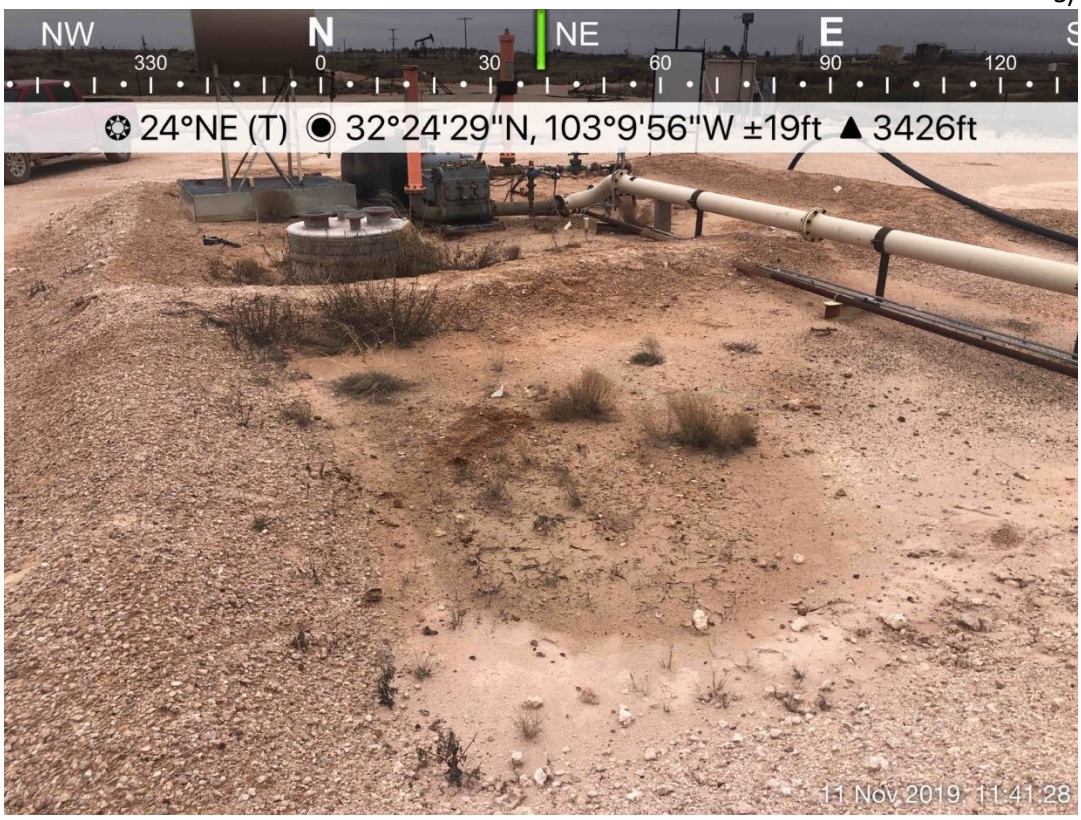
nVV2003739963
Chevron USA, Inc., Brunson Argo SWD
5/1/2020

Spill Area Viewing West, November 11, 2019

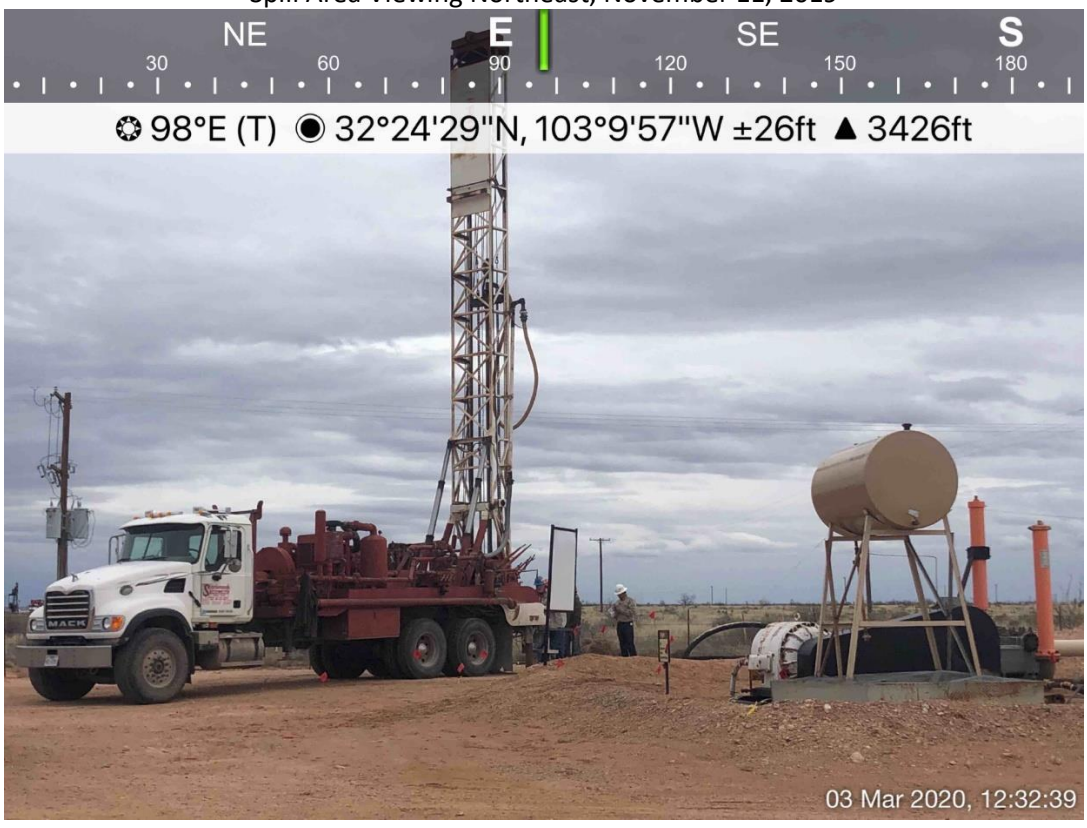


Spill Area Viewing Northwest, November 11, 2019

nVV2003739963
Chevron USA, Inc., Brunson Argo SWD
5/1/2020

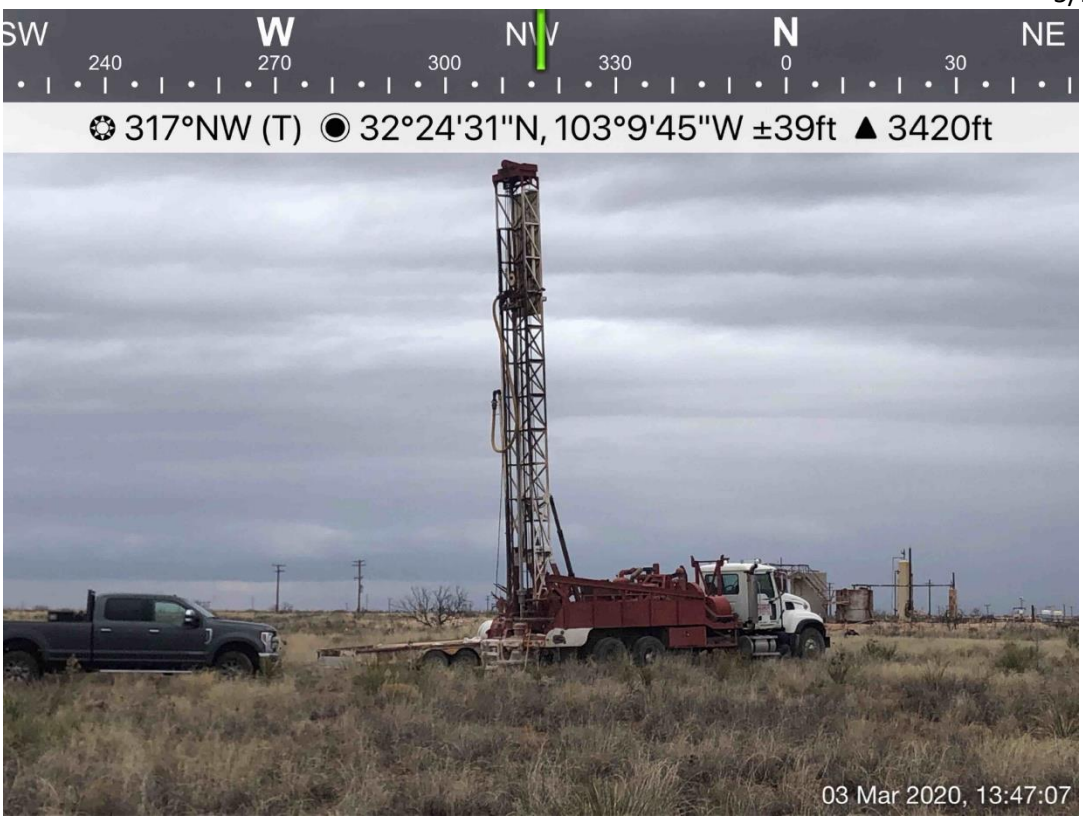


Spill Area Viewing Northeast, November 11, 2019



Soil Sampling with Air Rotary Drill Rig, Viewing East, March 3, 2020

nVV2003739963
Chevron USA, Inc., Brunson Argo SWD
5/1/2020



Drilling BH-1, Viewing Northwest, March 3, 2020