

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	NRM2029649621
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	XTO Energy	OGRID	5380
Contact Name	Kyle Littrell	Contact Telephone	432-221-7331
Contact email	Kyle_Littrell@xtoenergy.com	Incident #	(assigned by OCD)
Contact mailing address	522 W. Mermod, Carlsbad, NM 88220		

Location of Release Source

Latitude 32.21098 Longitude -103.76843
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	PLU 15 TWR 104H	Site Type	Well Pad
Date Release Discovered	10/6/2020	API#	(if applicable)

Unit Letter	Section	Township	Range	County
N	15	24S	31E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 3.31	Volume Recovered (bbls) 1.7
☒ Produced Water	Volume Released (bbls) 6.43	Volume Recovered (bbls) 3.3
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

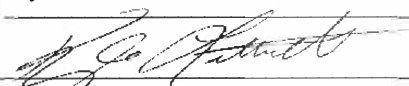
Cause of Release Flow line developed a leak. A vacuum truck was dispatched and recovered 5 bbls. A third party contractor has been retained for remediation activities.

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

Initial Response

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

☒ The source of the release has been stopped. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: N/A	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Kyle Littrell</u>	Title: <u>SH&E Supervisor</u>
Signature: 	Date: <u>10-20-20</u>
email: <u>Kyle_Littrell@xtoenergy.com</u>	Telephone: <u>432-221-7331</u>
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>10/22/2020</u>

NRM2029649621

Location:	PLU 15 TWR 104H	
Spill Date:	10/6/2020	
Area 1		
Approximate Area =	7098.00	sq. ft.
Average Saturation (or depth) of spill =	1.50	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	3.31	bbls
Total Produced Water =	6.43	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	3.31	bbls
Total Produced Water =	6.43	bbls
TOTAL VOLUME RECOVERED		
Total Crude Oil =	1.70	bbls
Total Produced Water =	3.30	bbls

Incident ID	NRM2029649621
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NRM2029649621
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Kyle Littrell Title: SH&E Supervisor
Signature:  Date: 02/26/2021
email: Kyle.Littrell@xtoenergy.com Telephone: (432)-221-7331

OCD Only

Received by: _____ Date: _____

Incident ID	NRM2029649621
District RP	
Facility ID	
Application ID	

Remediation Plan

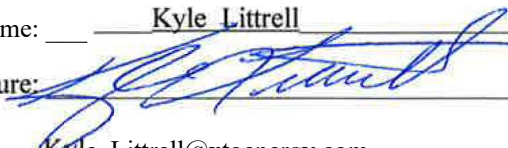
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

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

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

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor
Signature:  Date: 02/26/2021
email: Kyle.Littrell@xtoenergy.com Telephone: (432)-221-7331

OCD Only

Received by: Chad Hensley Date: 04/29/2021

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

Signature:  Date: 04/29/2021



WSP USA

3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

March 3, 2021

District II
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

**RE: Deferral Request
 PLU 15 TWR 104H
 Incident Number NRM2029649621
 Eddy County, New Mexico**

To Whom it May Concern:

WSP USA Inc. (WSP) on behalf of XTO Energy, Inc. (XTO), is pleased to present the following Deferral Request detailing site assessment, soil sampling, and excavation activities at the PLU 15 TWR 104H (Site) in Unit N, Section 15, Township 24 South, Range 31 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, soil sampling, and excavation activities was to address impacts to soil following a release of crude oil and produced water at the Site. Based on field observations, field screening activities, and soil sampling laboratory analytical results, XTO is submitting this Deferral Request, describing remediation that has occurred and requesting deferral of final remediation for Incident Number NRM2029649621 until the Site is reconstructed, and/or the well pad is abandoned.

RELEASE BACKGROUND

On October 6, 2020, a flow line developed a leak, resulting in the release of 3.31 barrels (bbls) of crude oil and 6.43 bbls of produced water onto the surface of the well pad. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 1.7 bbls of crude oil and 3.3 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Form C-141 on October 20, 2020. The release was assigned Incident Number NRM2029649621.

SITE CHARACTERIZATION

WSP characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is NMOSE well C 04388, located approximately 0.97 miles east of the Site. The groundwater well has a reported depth to groundwater of 866 feet bgs and a total depth of 910 feet bgs. Ground surface elevation at the groundwater well location is 3,566



feet above mean sea level (amsl), which is approximately 24 feet higher in elevation than the Site. The next closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 321421103464901, located approximately 2.11 miles north of the Site. The groundwater well was most recently measured in January 2013 has a reported depth to groundwater of 437 feet bgs and a total depth of 627 feet bgs. Ground surface elevation at the groundwater well location is 3,424 feet amsl, which is approximately 118 feet lower in elevation than the Site.

In an effort to confirm the depth to groundwater determination, WSP installed a soil boring within 0.5 miles of the Site utilizing a truck-mounted hollow-stem auger rig. Soil boring POD 1 (C-4508) was drilled to a depth of 110 feet bgs on December 29, 2020. A WSP geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. The location of the borehole is approximately 0.15 miles east of the Site and is depicted on Figure 1. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 110 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. The well record, log, and plugging record are included as Attachment 1. All wells used for depth to groundwater determination are depicted on Figure 1.

The closest continuously flowing or significant watercourse to the Site is an intermittent stream, located approximately 600 feet south of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg



SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On October 28, 2020, WSP personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. WSP personnel collected eight preliminary assessment soil samples (SS01 through SS08) within the release extent from a depth of approximately 0.5 feet bgs to assess the lateral extent of the impacted soil. The preliminary soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil samples SS01 through SS08, indicated that BTEX and/or TPH-GRO/TPH-DRO and TPH concentrations exceeded the Closure Criteria. Chloride concentrations were compliant with the Closure Criteria in all preliminary soil samples. Based on visible staining in the release area, elevated field screening results, and laboratory analytical results for the preliminary soil samples, delineation and excavation activities were warranted.

EXCAVATION AND DELINEATION SOIL SAMPLING ACTIVITIES

Between December 16, 2020 through January 5, 2021, WSP personnel were at the Site to oversee site assessment and excavation activities. Impacted soil was excavated from the release area as indicated by visible staining, field screening activities, and laboratory analytical results for the preliminary soil samples. Excavation activities were performed using track-mounted backhoe and transport vehicle. The excavation occurred on pad west of the active wellheads. Impacted soil was not excavated from the area immediately surrounding the wellheads in the areas of preliminary soil samples SS07 and SS08 due to XTO safety policy which restricts earth moving activities within 10 feet of an active wellhead and within 2 feet of active production equipment. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Photographic documentation is included in Attachment 2.

Following removal of impacted soil to the extent possible, WSP collected 5-point composite soil samples at least every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon,



resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS53 were collected from the floor of the excavation from depths ranging from 2 feet to 6 feet bgs. Composite soil samples SW01 through SW12 and SW15 through SW21 were collected from the sidewalls of the excavation from depths ranging from the ground surface to 6 feet bgs. The excavation soil samples were handled and analyzed following the same procedures as described above. Soil samples collected from SW13 and SW14 locations were used for delineation as described below. The excavation extent and excavation soil sample locations are presented on Figure 3.

The excavation area measured approximately 10,300 square feet. A total of approximately 1,180 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation areas were secured with fencing.

Due to restrictions for subsurface activities within 10 feet of the wellheads, impacted soil at preliminary soil samples SS07 and SS08 could not be advanced into the subsurface for vertical delineation. Instead, discrete sidewall samples SW13/SW13A/SW13B and SW14/SW14A/ SW14B were collected at depths of 2 feet, 4 feet, and 6 feet bgs, respectively, from the excavation sidewall adjacent to the wellheads to assess the vertical extent of impacted soil that was left in place. For lateral delineation, potholes PH01 through PH03 were advanced via trackhoe north, south, and east of the wellheads and active production equipment to a depth of 6 feet bgs. Delineation soil samples were collected from the potholes from depths ranging from 2 feet to 6 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Attachment 3. The pothole and delineation soil sample locations are depicted on Figure 4. The delineation soil samples were handled and analyzed following the same procedures as described above.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples SS01 through SS08 indicated that BTEX and/or TPH-GRO/TPH-DRO and TPH concentrations exceeded the Closure Criteria. Laboratory analytical results for preliminary soil samples SS01 through SS08 indicated that chloride concentrations were compliant with the Closure Criteria.

Laboratory analytical results for excavation sidewall samples SW01 through SW12 and SW15 through SW21, and excavation floor samples FS01 through FS53 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

Laboratory analytical results for the discrete delineation soil samples collected from 2, 4, and 6 feet bgs in potholes PH01 through PH03 and sidewall sample location SW13 indicated that



benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Concentrations of BTEX and TPH exceeded Closure Criteria in the sample collected from 2 feet bgs at discrete sidewall sample location SW14; subsequent discrete samples SW14A and SW14B, collected at depths of 4 feet and 6 feet bgs, were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

DEFERRAL REQUEST

A total of approximately 1,180 cubic yards of impacted soil were excavated from the Site; however, residual impacted soil was left in place immediately surrounding the active wellheads and production equipment for compliance with XTO safety policy. This XTO safety policy is established to protect workers and reduce the likelihood of compromising the foundation of the wellhead/wellbore. Laboratory analytical results for preliminary samples SS07 and SS08 and excavation sidewall sample SW14 indicated that soil with BTEX, TPH-GRO/TPH-DRO, and TPH concentrations exceeding the Closure Criteria was left in place. WSP applied a solution of Micro-Blaze®, a biological amendment promoting microbial degradation, across the entire surface area near the wellheads to address the elevated hydrocarbon concentrations.

The impacted soil remaining in place is delineated vertically and laterally by excavation soil samples SW13, SW13A, SW13B, SW14A, SW14B, SW15, and FS50 through FS53, collected from the sidewalls and floor of the final excavation extent, and delineation soil samples collected from potholes PH01 through PH03. An estimated 160 cubic yards of impacted soil remains in place immediately surrounding the active wellheads, assuming a maximum 3-foot depth based on the excavation and delineation soil samples listed above, that were compliant with the Closure Criteria. Application of a biological amendment will enhance natural degradation by breaking down the hydrocarbon molecules for efficient bio-remediation by supplemental microbes. The deferral request and Micro-Blaze® application area is shown on Figure 4.

XTO requests to complete final remediation during any future major construction/alteration or final plugging and abandonment, whichever occurs first. WSP and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. Depth to groundwater was confirmed to be greater than 110 feet bgs, the majority of the released fluids were recovered during initial response activities, the impacted soil remaining in place is limited to the area immediately surrounding the active wellheads, no saturated soil remains in-place, and residual hydrocarbons have been treated with a biological amendment. XTO requests deferral of final remediation for Incident Number NRM2029649621.

If you have any questions or comments, please do not hesitate to contact Ms. Ashley Ager at (970) 385-1096.



District II
Page 6

Sincerely,

WSP USA Inc.

A handwritten signature in black ink, appearing to read 'Spencer Lo'.

Spencer Lo
Staff Geologist

A handwritten signature in black ink, appearing to read 'Ashley L. Ager'.

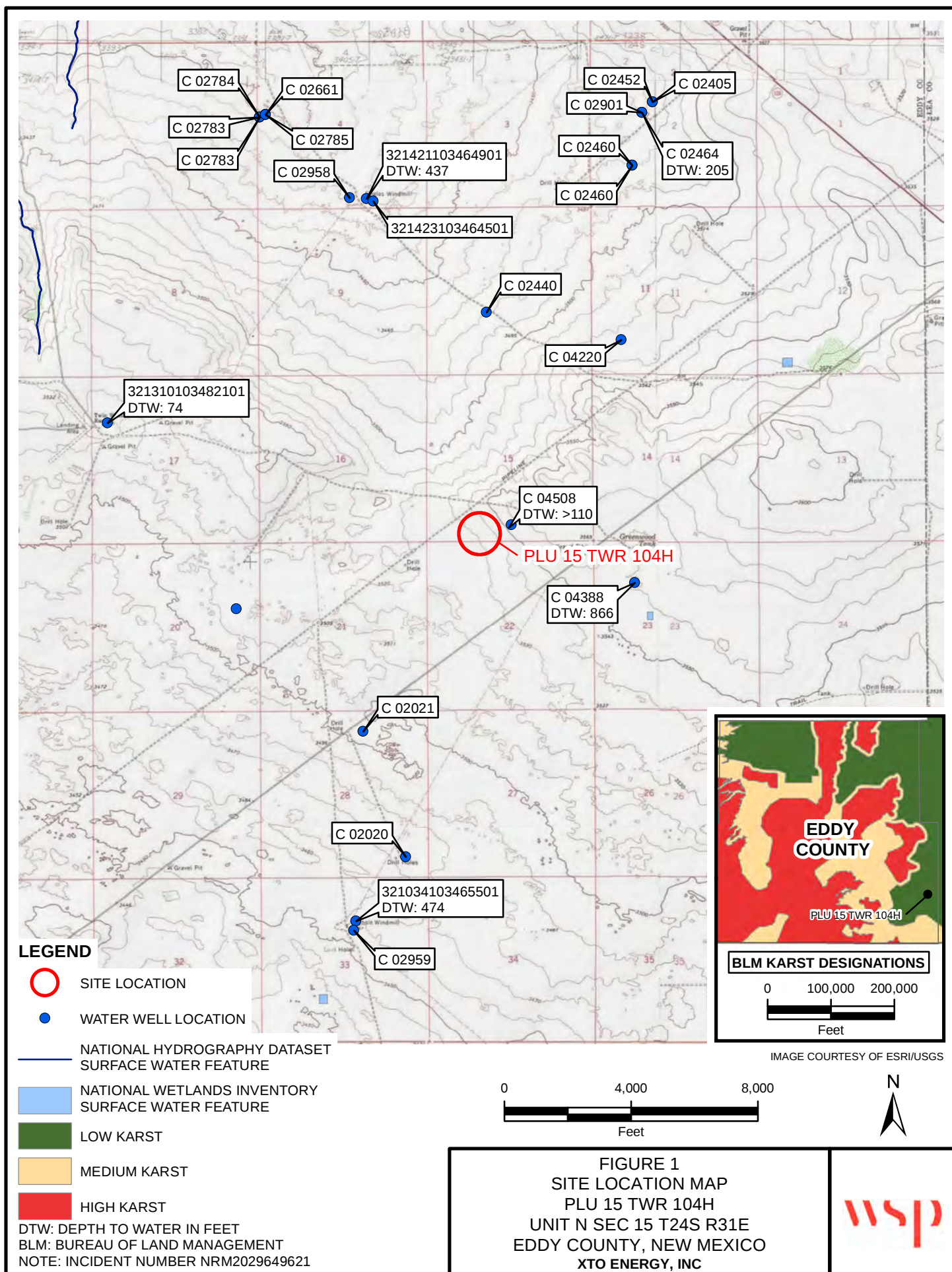
Ashley L. Ager, P.G.
Managing Director, Geologist

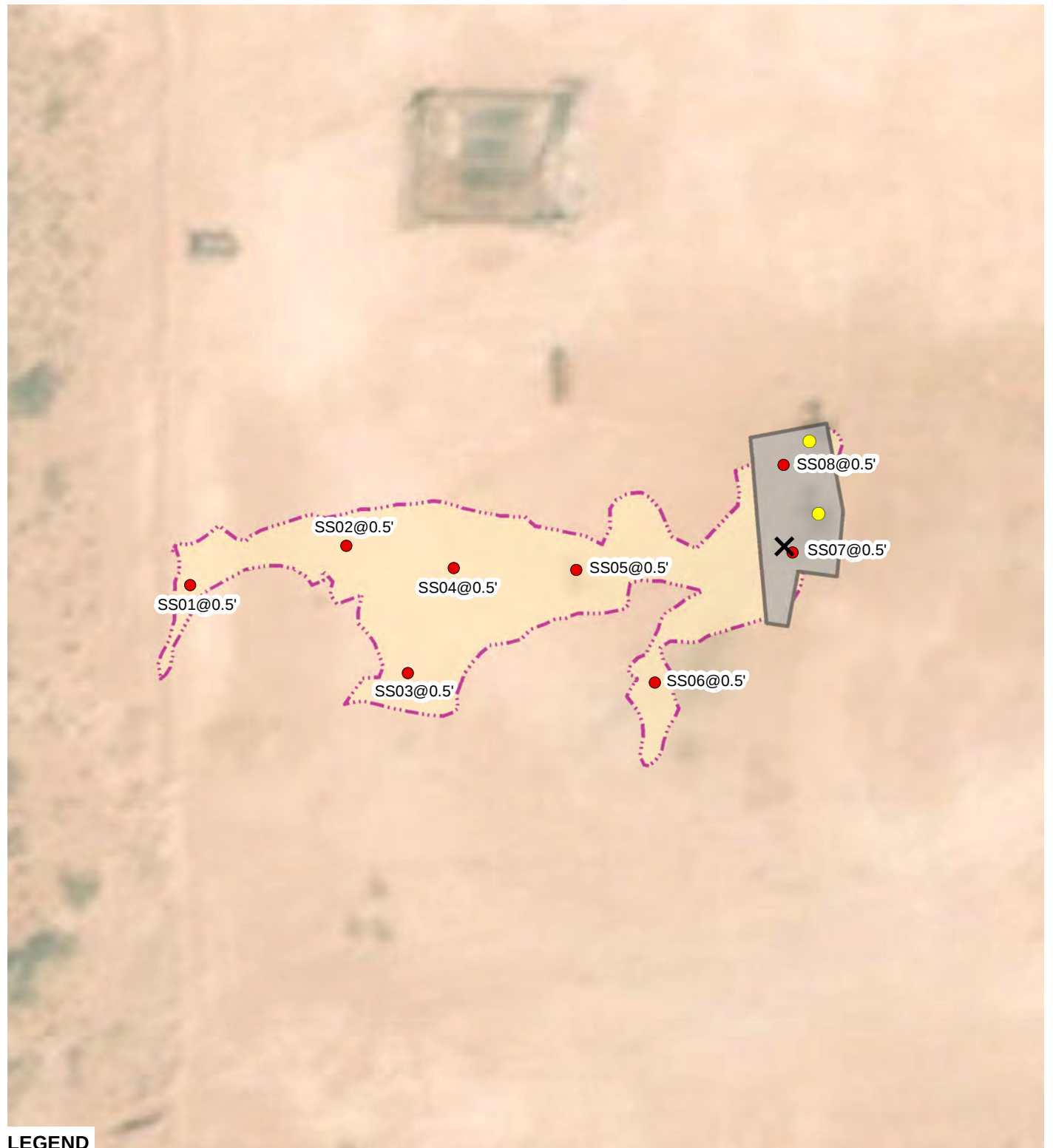
cc: Kyle Littrell, XTO
Bureau of Land Management

Attachments:

Figure 1 Site Location Map
Figure 2 Preliminary Soil Sample Locations
Figure 3 Excavation Soil Sample Locations
Figure 4 Delineation Soil Sample Locations
Table 1 Soil Analytical Results
Attachment 1 Referenced Well Records
Attachment 2 Photographic Log
Attachment 3 Lithologic/Sampling Log
Attachment 4 Laboratory Analytical Reports

FIGURES



**LEGEND**

RELEASE LOCATION



WELLHEAD

PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS
EXCEEDING APPLICABLE CLOSURE CRITERIA

INFRASTRUCTURE



RELEASE EXTENT

NOTE: INCIDENT NUMBER NRM2029649621

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

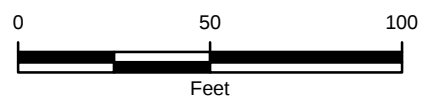
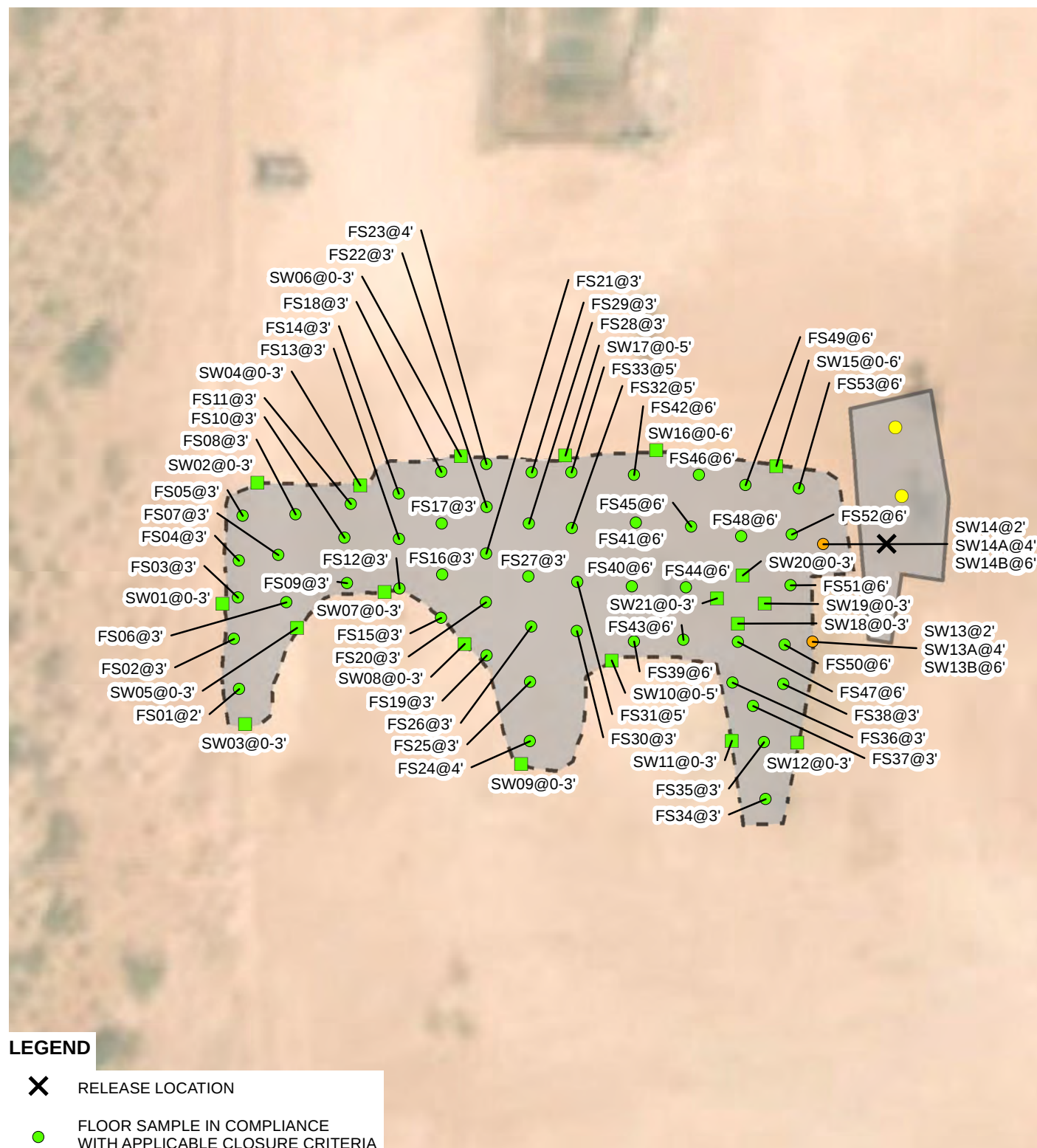


FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
 PLU 15 TWR 104H
 UNIT N SEC 15 T24S R31E
 EDDY COUNTY, NEW MEXICO
 XTO ENERGY, INC.



**LEGEND**

RELEASE LOCATION

FLOOR SAMPLE IN COMPLIANCE
WITH APPLICABLE CLOSURE CRITERIASIDEWALL SAMPLE IN COMPLIANCE
WITH APPLICABLE CLOSURE CRITERIADISCRETE SIDEWALL SAMPLE IN COMPLIANCE
WITH APPLICABLE CLOSURE CRITERIA

WELLHEAD



INFRASTRUCTURE



EXCAVATION EXTENT

NOTE: INCIDENT NUMBER NRM2029649621

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

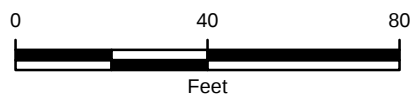
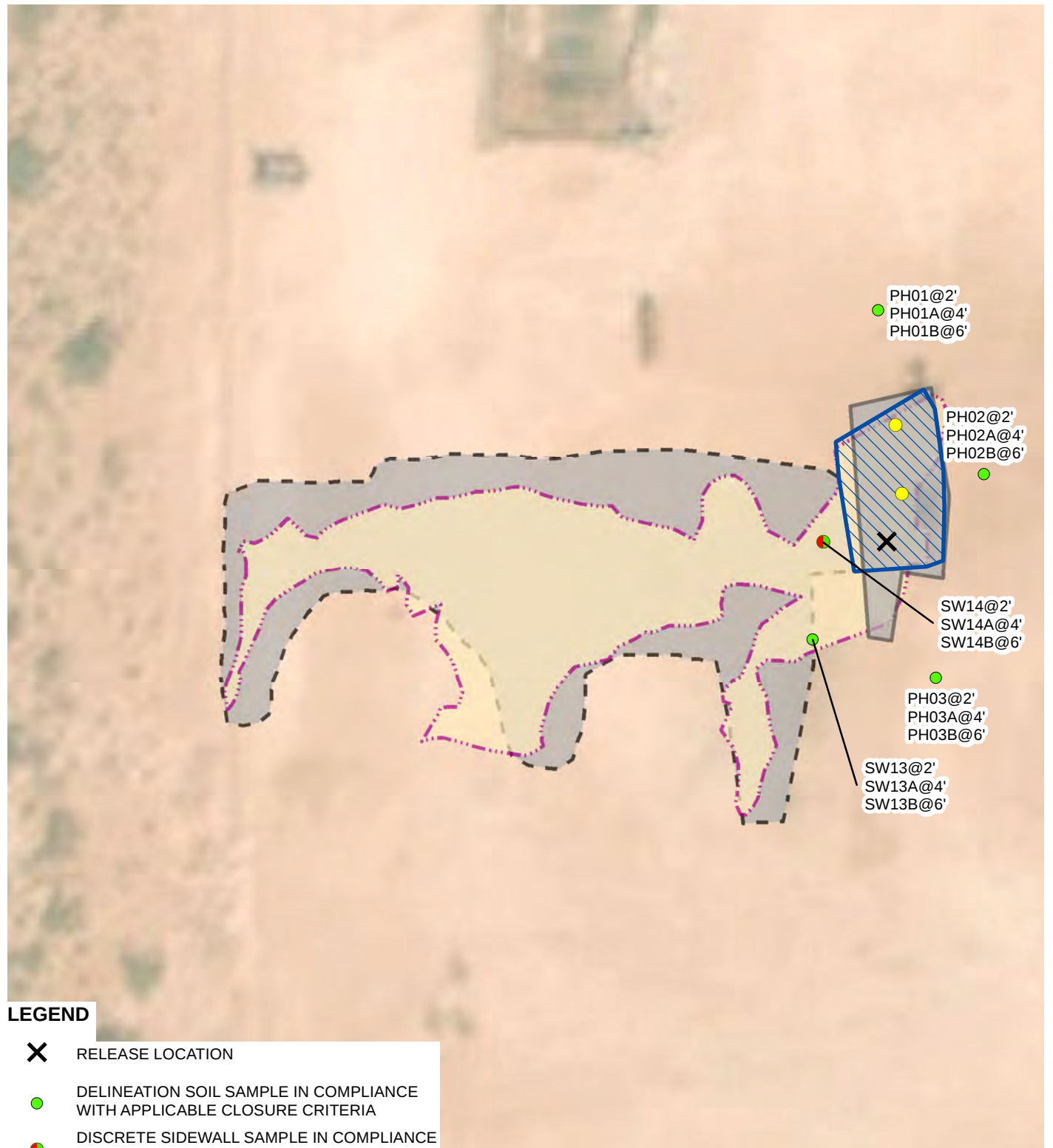


FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
 PLU 15 TWR 104H
 UNIT N SEC 15 T24S R31E
 EDDY COUNTY, NEW MEXICO
 XTO ENERGY, INC.



**LEGEND**

RELEASE LOCATION

DELINEATION SOIL SAMPLE IN COMPLIANCE
WITH APPLICABLE CLOSURE CRITERIADISCRETE SIDEWALL SAMPLE IN COMPLIANCE
WITH APPLICABLE CLOSURE CRITERIA

WELLHEAD



RELEASE EXTENT



EXCAVATION EXTENT



INFRASTRUCTURE



DEFERRAL AREA (160 CUBIC YARDS)

NOTE: INCIDENT NUMBER NRM2029649621
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

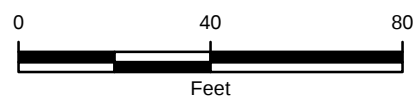


FIGURE 4
DELINEATION SOIL SAMPLE LOCATIONS
 PLU 15 TWR 104H
 UNIT N SEC 15 T24S R31E
 EDDY COUNTY, NEW MEXICO
 XTO ENERGY, INC.



TABLES

Table 1

Soil Analytical Results
PLU 15 TWR 104H
Incident Number NRM20296449621
XTO Energy, Inc
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Surface Samples										
SS01	10/28/2020	0.5	<0.0498	18.8	10,900	990	895	11,900	12,800	8,000
SS02	10/28/2020	0.5	<0.00200	0.400	8,180	443	731	8,620	9,350	9,360
SS03	10/28/2020	0.5	<0.00198	0.0233	10,200	<251	982	10,200	11,200	14,000
SS04	10/28/2020	0.5	<0.251	60.4	32,600	2,620	2,630	35,200	37,900	4,330
SS05	10/28/2020	0.5	<0.0499	17.1	24,300	1,010	1,770	25,300	27,100	5,310
SS06	10/28/2020	0.5	<0.250	89.0	18,400	2,110	1,670	20,500	22,200	2,240
SS07	10/28/2020	0.5	0.223	67.8	27,200	2,960	2,300	30,200	32,500	8,440
SS08	10/28/2020	0.5	<0.00200	<0.00200	1,330	<50.2	187	1,330	1,520	17,500
Excavation Floor Samples										
FS01	12/17/2020	2	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	10.2
FS02	12/17/2020	3	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	<10.1
FS03	12/17/2020	3	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<9.96
FS04	12/17/2020	3	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	13.8
FS05	12/17/2020	3	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	12.3
FS06	12/17/2020	3	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	36.8
FS07	12/17/2020	3	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	30.0
FS08	12/17/2020	3	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	40.5
FS09	12/17/2020	3	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	35.0
FS10	12/17/2020	3	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	77.5

Table 1

Soil Analytical Results
PLU 15 TWR 104H
Incident Number NRM20296449621
XTO Energy, Inc
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
FS11	12/17/2020	3	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	27.5
FS12	12/18/2020	3	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	128
FS13	12/18/2020	3	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	46.5
FS14	12/18/2020	3	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	48.8
FS15	12/18/2020	3	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	57.4
FS16	12/18/2020	3	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	12.8
FS17	12/18/2020	3	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	36.2
FS18	12/18/2020	3	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	37.7
FS19	12/18/2020	3	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	15.2
FS20	12/18/2020	3	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	17.4
FS21	12/18/2020	3	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	13.4
FS22	12/18/2020	3	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	16.3
FS23	12/21/2020	4	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	<9.92
FS24	12/22/2020	4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	86.6
FS25	12/18/2020	3	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	57.7
FS26	12/18/2020	3	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	40.8
FS27	12/18/2020	3	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	<9.92
FS28	12/18/2020	3	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	23.8
FS29	01/08/2021	3	<0.00200	<0.00200	<50.2	54.1	<50.2	54.1	54.1	101

Table 1

Soil Analytical Results
PLU 15 TWR 104H
Incident Number NRM20296449621
XTO Energy, Inc
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
FS30	01/08/2021	3	<0.00199	<0.00199	<50.2	93.6	<50.2	93.6	93.6	327
FS31	12/21/2020	5	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	18.7
FS32	12/21/2020	5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	20.5
FS33	12/21/2020	5	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	13.4
FS34	12/22/2020	3	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	9.04
FS35	12/22/2020	3	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	6.69
FS36	12/22/2020	3	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	17.9
FS37	12/22/2020	3	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	17.0
FS38	12/22/2020	3	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	9.74
FS39	12/22/2020	6	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	<4.98
FS40	12/22/2020	6	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	<5.01
FS41	12/22/2020	6	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	<5.04
FS42	12/22/2020	6	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97
FS43	12/22/2020	6	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	31.3
FS44	12/22/2020	6	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	11.4
FS45	12/22/2020	6	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	23.4
FS46	12/22/2020	6	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	20.3
FS47	12/22/2020	6	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	17.2
FS48	12/22/2020	6	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	9.84

Table 1

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PLU 15 TWR 104H
Incident Number NRM20296449621
XTO Energy, Inc
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
FS49	01/08/2021	6	<0.00200	<0.00200	<49.9	71.2	<49.9	71.2	71.2	519
FS50	12/22/2020	6	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	35.5
FS51	12/22/2020	6	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	22.9
FS52	01/08/2021	6	<0.00200	<0.00200	<50.0	52.4	<50.0	52.4	52.4	562
FS53	12/22/2020	6	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	67.2
Excavation Sidewall Samples										
SW01	12/17/2020	0 - 3	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	25.6
SW02	12/17/2020	0 - 3	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	11.1
SW03	12/17/2020	0 - 3	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	32.5
SW04	12/18/2020	0 - 3	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	12.0
SW05	12/17/2020	0 - 3	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	58.9
SW06	12/18/2020	0 - 3	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	22.5
SW07	12/18/2020	0 - 3	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	40.7
SW08	12/18/2020	0 - 3	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	150
SW09	12/18/2020	0 - 3	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	31.0
SW10	12/22/2020	0 - 5	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97
SW11	12/22/2020	0 - 3	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	188
SW12	12/22/2020	0 - 3	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	48.8
SW13	01/05/2021	2	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	<10.0

Table 1

Soil Analytical Results
PLU 15 TWR 104H
Incident Number NRM20296449621
XTO Energy, Inc
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
SW13A	01/05/2021	4	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	<10.0
SW13B	01/05/2021	6	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	<10.0
SW14	01/05/2021	2	<0.0998	50.7	330	4,590	679	4,920	5,600	5,480
SW14A	01/05/2021	4	<0.00201	<0.00201	<50.0	51.6	<50.0	51.6	51.6	107
SW14B	01/05/2021	6	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	81.1
SW15	01/05/2021	0 - 6	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	18.7
SW16	01/05/2021	0 - 6	<0.00199	<0.00199	<50.1	56.8	<50.1	56.8	56.8	<10.0
SW17	01/05/2021	0 - 5	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	14.1
SW18	01/05/2021	0 - 3	<0.00200	<0.00200	107	864	90.1	971	1,060	503
SW19	01/05/2021	0 - 3	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	62.7
SW20	01/05/2021	0 - 3	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	55.3
SW21	01/05/2021	0 - 3	<0.00202	<0.00202	63.9	326	<49.9	390	390	433
Delineation Samples										
PH01	01/05/2021	2	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	<9.90
PH01A	01/05/2021	4	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	41.2
PH01B	01/05/2021	6	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	11.9
PH02	01/05/2021	2	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	71.1
PH02A	01/05/2021	4	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	12.1
PH02B	01/05/2021	6	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	<10.1
PH03	01/05/2021	2	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	<9.98

Table 1

Soil Analytical Results
 PLU 15 TWR 104H
 Incident Number NRM20296449621
 XTO Energy, Inc
 Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
PH03A	01/05/2021	4	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	<9.98
PH03B	01/05/2021	6	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0

Notes:

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

< - indicates result is less than the stated laboratory method practical quantitation limit

NE - Not Established

BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard

Greyed data represents samples that were excavated

ATTACHMENT 1: REFERENCED WELL RECORD



2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

02/12/2021

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-4508 Pod1

To whom it may concern:

Attached please find a well record and a plugging record, in duplicate, for a one (1) soil borings, C-4508 Pod1.

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Lucas Middleton".

Lucas Middleton

Enclosures: as noted above

OSE D/I FEB 12 2021 AM 11:48



PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4508- POD1

Well owner: XTO ENERGY (Kyle Littrell)

Phone No.: 432.682.8873

Mailing address: 6401 Holiday Hill Dr.

City: Midland State: Texas Zip code: 79707

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)

2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/21

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Shane Eldridge

4) Date well plugging began: 1/19/2021 Date well plugging concluded: 1/19/2021

5) GPS Well Location: Latitude: 32 deg, 12 min, 46.69 sec
Longitude: -103 deg, 45 min, 55.29 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 110 ft below ground level (bgl),
by the following manner: weighted tape

7) Static water level measured at initiation of plugging: n/a ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 01/29/2021

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

- 10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

<u>Depth</u> (ft bgl)	<u>Plugging Material Used</u> (include any additives used)	<u>Volume of Material Placed</u> (gallons)	<u>Theoretical Volume of Borehole/ Casing</u> (gallons)	<u>Placement Method</u> (tremie pipe, other)	<u>Comments</u> ("casing perforated first", "open annular space also plugged", etc.)
0-10'	Hydrated Bentonite	Approx. 26 gallons	26 gallons	Augers	
10'-110'	Drill Cuttings	Approx. 163 gallons	163 gallons	Boring	

MULTIPLY	BY	AND OBTAIN
cubic feet x 7.4805	=	gallons
cubic yards x 201.97	=	gallons

III. SIGNATURE:

I, Jackie D. Atkins, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Jack Atkins

Signature of Well Driller

02/11/2021

Date

2020-1-15_C-4508-POD1_Plugging Record-forsign

Final Audit Report

2021-02-11

Created:	2021-02-11
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAArUGmvmCCqA2D57_XMj-tv5gTnnQ0USgG

"2020-1-15_C-4508-POD1_Plugging Record-forsign" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)
2021-02-11 - 6:15:02 PM GMT- IP address: 69.21.248.123
-  Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2021-02-11 - 6:16:06 PM GMT
-  Email viewed by Jack Atkins (jack@atkinseng.com)
2021-02-11 - 6:35:07 PM GMT- IP address: 74.50.153.115
-  Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-02-11 - 6:35:38 PM GMT - Time Source: server- IP address: 74.50.153.115
-  Agreement completed.
2021-02-11 - 6:35:38 PM GMT

05E DTI FEB 12 2021 AM 11:49



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (BH-01)		WELL TAG ID NO. n/a		OSE FILE NO(S). C-4508			
	WELL OWNER NAME(S) XTO Energy (Kyle Littrell)				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 6401 Holiday Hill Dr.				CITY Midland	STATE TX	ZIP 79707	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32°	MINUTES 12'	SECONDS 46.69" N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
		LONGITUDE -103°	45'	55.29" W	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE SW SE Sec. 15 T24S R31E								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 12/29/2020		DRILLING ENDED 12/29/2020		DEPTH OF COMPLETED WELL (FT) temporary well material	BORE HOLE DEPTH (FT) 110	DEPTH WATER FIRST ENCOUNTERED (FT) n/a	
	COMPLETED WELL IS: ☐ ARTESIAN ☒ DRY HOLE ☐ SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a		
	DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:							
	DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☒ OTHER – SPECIFY: Hollow Stem Auger							
	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	110	±8.5	Boring- HSA	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0	14	14	SAND, medium-fine grain, poorly graded,someclaiche, light-brown-tan,dry	Y ✓ N	
	14	15	1	SAND, fine grain, poorly graded,someclaiche, light-brown-tan,dry	Y ✓ N	
	15	25	5	CALICHE, moderately consolidated,silty, some gravel, off-white-tan, dry	Y ✓ N	
	25	46	21	SILTSTONE, mod. consolidated, some sand, red-brown, dry	Y ✓ N	
	46	64	18	CLAYSTONE, mod. consolidated, cohesive, few sand, red-brown, dry	Y ✓ N	
	64	72	8	SANDSTONE, high consolidated, medium-grain, well graded,white/lightbrown	Y ✓ N	
	72	90	18	CLAYSTONE, high consolidated, cohesive, medium plasticity, few sand, red-br	Y ✓ N	
	90	101	11	SANDSTONE, high consolidated, fine grain, few silt,white/offwhite	Y ✓ N	
	101	108	7	CLAYSTONE, high consolidated, cohesive, med.-low plasticity, few sand, red-b	Y ✓ N	
	108	111	3	SANDSTONE, high consolidated, fine grain, few silt, white/offwhite, dry	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:				TOTAL ESTIMATED WELL YIELD (gpm): 0.00	
	5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.			
MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from WSP on-site geologist.						
PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge						
6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:					
	 Jackie D. Atkins			02/11/2021		
SIGNATURE OF DRILLER / PRINT SIGNEE NAME				DATE		

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 06/30/2017)	
FILE NO.	POD NO.	TRN NO.	
LOCATION	WELL TAG ID NO.		PAGE 2 OF 2

2021-1-15_C-4508_POD1_OSE_Well Record and Log_PLU TW 905-forsign

Final Audit Report

2021-02-11

Created:	2021-02-11
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAG-NYQZ1INEsJdTzn-ds6QoZn64pMMkT

"2021-1-15_C-4508_POD1_OSE_Well Record and Log_PLU TW 905-forsign" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)
2021-02-11 - 6:29:28 PM GMT- IP address: 69.21.248.123
-  Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2021-02-11 - 6:29:56 PM GMT
-  Email viewed by Jack Atkins (jack@atkinseng.com)
2021-02-11 - 6:35:51 PM GMT- IP address: 74.50.153.115
-  Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-02-11 - 6:36:53 PM GMT - Time Source: server- IP address: 74.50.153.115
-  Agreement completed.
2021-02-11 - 6:36:53 PM GMT

OSE DJI FEB 12 2021 AM 11:40



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)						(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C	02464	2	3	1	02	24S	31E	617645	3568581 

Driller License:	421	Driller Company:	GLENN'S WATER WELL SERVICE						
Driller Name:	GLENN, CLARK A."CORKY" (LD)								
Drill Start Date:	08/24/1995	Drill Finish Date:	08/24/1995		Plug Date:				
Log File Date:	09/07/1995	PCW Rcv Date:			Source:	Shallow			
Pump Type:		Pipe Discharge Size:			Estimated Yield:	12 GPM			
Casing Size:	6.63	Depth Well:	320 feet		Depth Water:	205 feet			

Water Bearing Stratifications:	Top	Bottom	Description
	220	230	Sandstone/Gravel/Conglomerate
	230	245	Shale/Mudstone/Siltstone
	250	282	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	208	320

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

POINT OF DIVERSION SUMMARY

USGS 321310103482101 24S.31E.17.13120

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°13'14.1", Longitude 103°48'23.4" NAD83

Eddy County, New Mexico , Hydrologic Unit 13060011

Well depth: not determined.

Land surface altitude: 3,530.00 feet above NGVD29.

Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits"
(110AVMB) local aquifer

AVAILABLE DATA:

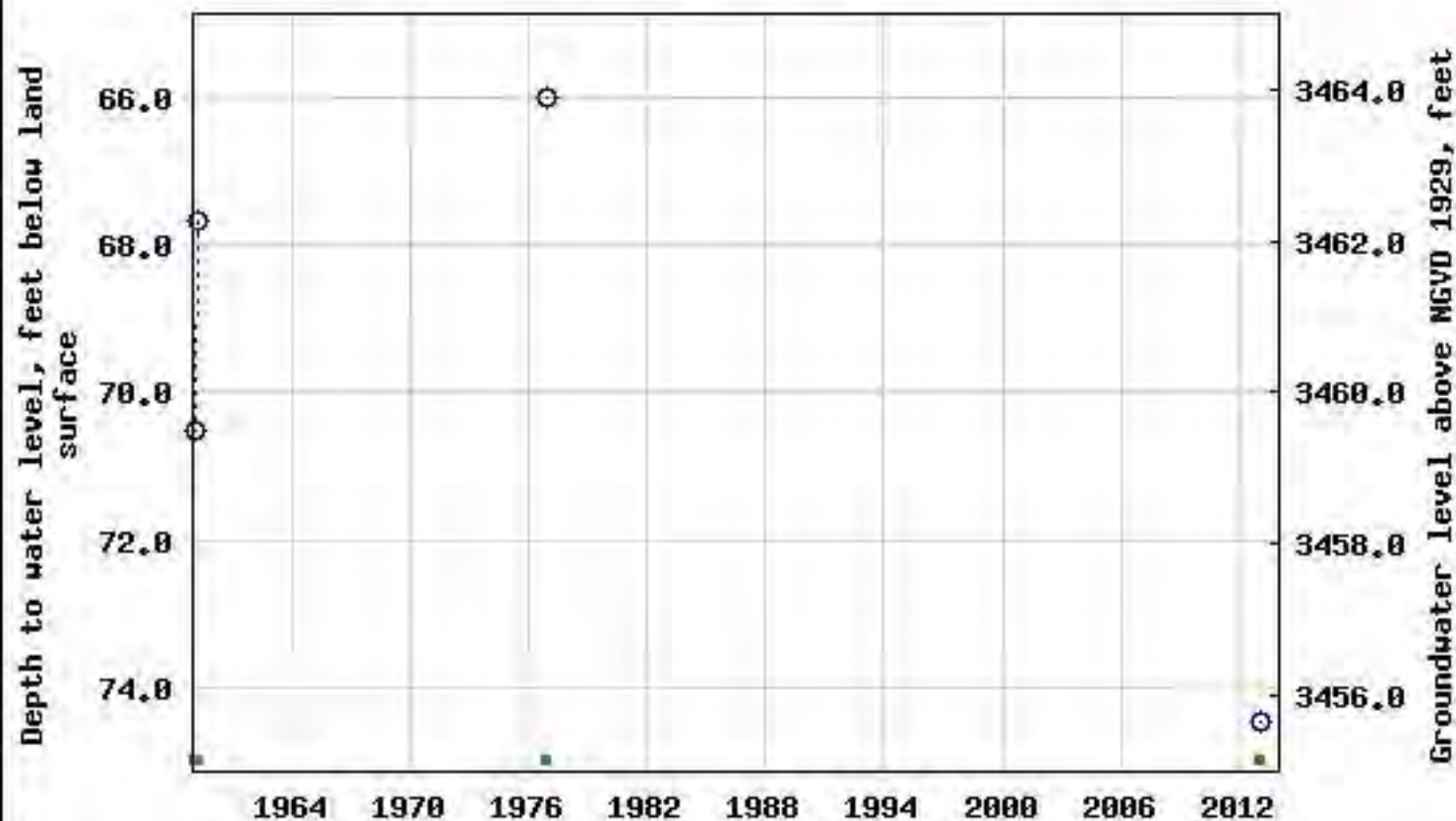
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1959-02-03	2013-01-17	4
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center

Email questions about this site to [New Mexico Water Science Center Water-Data
Inquiries](#)

USGS 321310103482101 24S.31E.17.13120



USGS 321034103465501 24S.31E.33.231113

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°10'38.2", Longitude 103°46'53.0" NAD83

Eddy County, New Mexico , Hydrologic Unit 13070001

Well depth: 740 feet

Land surface altitude: 3,461.00 feet above NGVD29.

Well completed in "Rustler Formation" (312RSLR) local aquifer

AVAILABLE DATA:

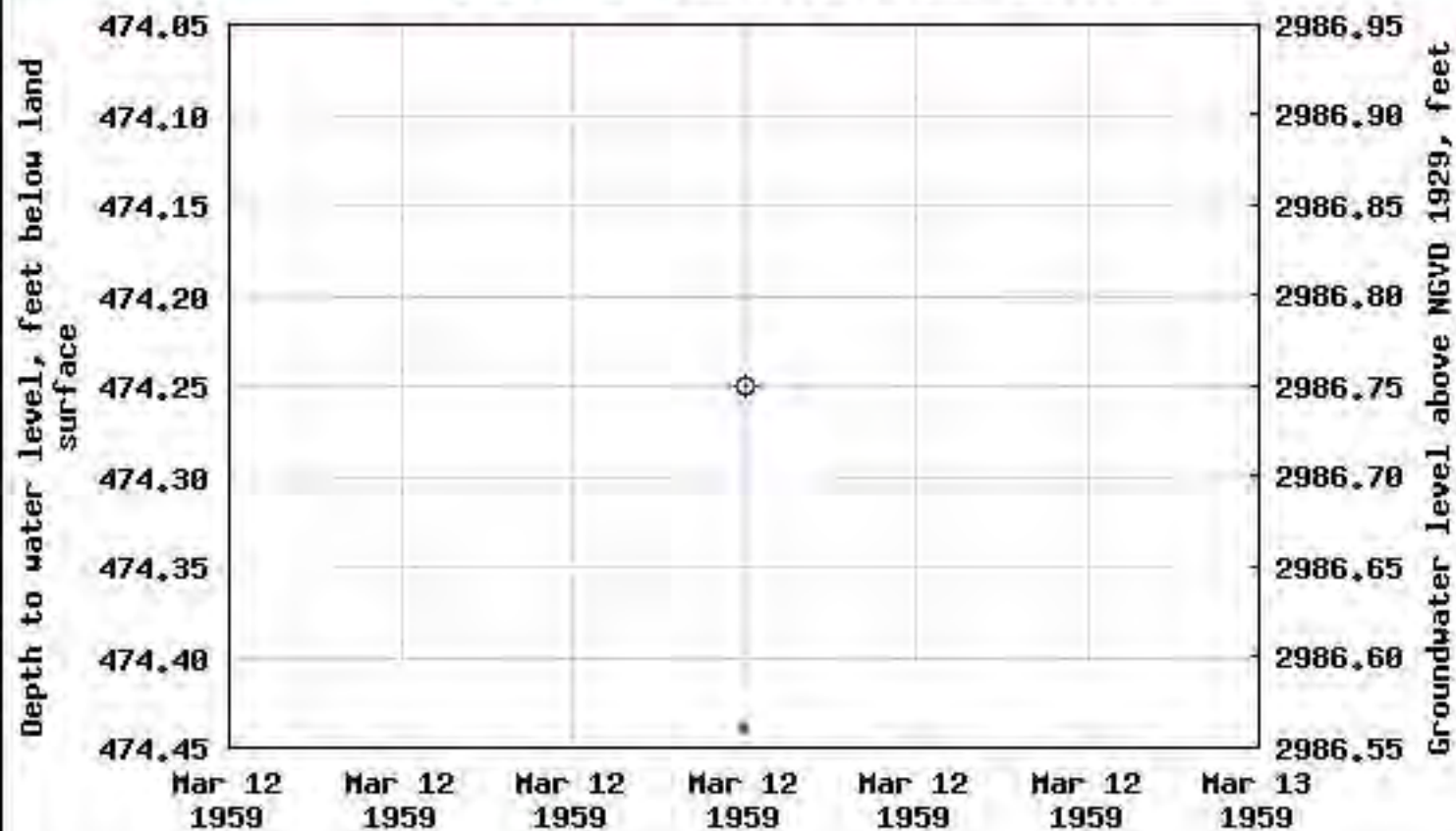
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1959-03-12	1959-03-12	1
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center

Email questions about this site to [New Mexico Water Science Center Water-Data
Inquiries](#)

USGS 321034103465501 24S.31E.33.231113



USGS 321421103464901 24S.31E.04.433422

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°14'23.7", Longitude 103°46'47.8" NAD83
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 627 feet
Land surface altitude: 3,419.00 feet above NGVD29.
Well completed in "Rustler Formation" (312RSLR) local aquifer

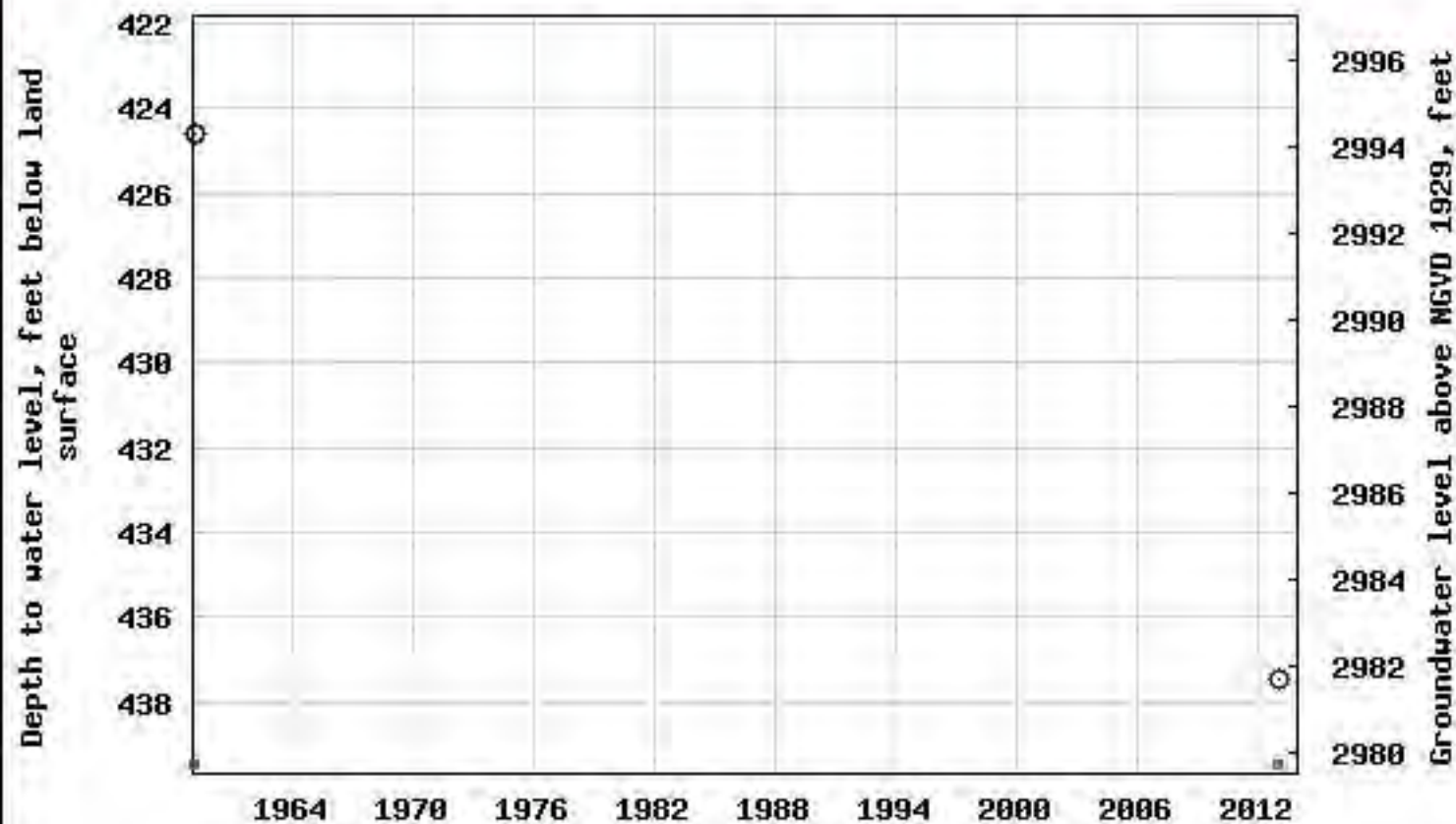
AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1959-03-13	2013-01-16	2
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to [New Mexico Water Science Center Water-Data
Inquiries](#)

USGS 321421103464901 24S.31E.04.433422



ATTACHMENT 2: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG

XTO ENERGY, INC	PLU 15 TWR 104H Eddy County, NM	TE012920150
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Photo No.	Date	
1	October 28, 2020 – January 5, 2021	
Northern view of stained area.		

Photo No.	Date	
2	October 28, 2020 – January 5, 2021	
Eastern view of stained area.		



PHOTOGRAPHIC LOG

XTO ENERGY, INC	PLU 15 TWR 104H Eddy County, NM	TE012920150
-----------------	------------------------------------	-------------

Photo No.	Date	
3	October 28, 2020 – January 5, 2021	
Southern view of western portion excavation.		

Photo No.	Date	
4	October 28, 2020 – January 5, 2021	
North eastern view of excavation near wellheads.		



PHOTOGRAPHIC LOG

XTO ENERGY, INC	PLU 15 TWR 104H Eddy County, NM	TE012920150
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Photo No.	Date	
5	October 28, 2020 – January 5, 2021	
Northern view of excavation near wellheads.		 A wide-angle photograph showing a large, deep excavation site. The ground is uneven and covered with loose soil and rocks. In the background, there are some industrial structures and a small building. The sky is blue with some clouds.

Photo No.	Date	
6	October 28, 2020 – January 5, 2021	
Delineation pothole PH02.		 A photograph showing a yellow excavator bucket digging into the ground, creating a pothole. In the background, there is a yellow storage tank and some industrial equipment. The ground is dry and dusty.



PHOTOGRAPHIC LOG

XTO ENERGY, INC	PLU 15 TWR 104H Eddy County, NM	TE012920150
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Photo No.	Date	
7	October 28, 2020 – January 5, 2021	
Northern view of excavation and backfill.		 A wide-angle photograph showing a large, deep excavation site. The ground is uneven, with visible tire tracks and mounds of earth. In the background, a yellow excavator is visible on a raised platform. The sky is blue with scattered white clouds.

Photo No.	Date	
8	October 28, 2020 – January 5, 2021	
Western view of excavation and backfill.		 A photograph showing a different angle of the excavation site. The foreground is dominated by a large, dark, textured mound of earth or gravel. In the background, a yellow excavator is visible on a raised platform. The sky is blue with scattered white clouds.

ATTACHMENT 3: LITHOLOGIC/SAMPLING LOG

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220						BH or PH Name:		Date:	
						PH01		1/5/2021	
						Site Name:		PLU 15 TWR 104H	
						RP or Incident Number:		NRM2029649621	
						LTE Job Number:		TE012920150	
LITHOLOGIC / SOIL SAMPLING LOG						Logged By SL		Method: Trackhoe	
Lat/Long:			Field Screening:			Hole Diameter:		Total Depth:	
			Chloride, PID			-		6'	
Comments: TD @ 6', chloride field screening values include 60% error factor									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0		0-2' sand, brown, no odor, no stain, well sorted, m-f, trace silt	
						1	SP-SM		
D	<186	0.0	N	PH01	2	2			
						3		2'-6' sand w/ caliche, tan, no odor, no stain, well sorted, m-f, some pea-sized caliche gravel, non cohesive	
D	<186	0.0	N	PH01A	4	4	SP		
						5			
D	<186	0.0	N	PH01B	6	6			
						7		TD @ 6'	
						8			
						9			
						10			
						11			
						12			
						13			
						14			
						15			
						16			
						17			
						18			
						19			
						20			
						21			
						22			
						23			
						24			

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220						BH or PH Name:		Date:	
						PH02		1/5/2021	
						Site Name:		PLU 15 TWR 104H	
						RP or Incident Number:		NRM2029649621	
						LTE Job Number:		TE012920150	
LITHOLOGIC / SOIL SAMPLING LOG						Logged By SL		Method: Trackhoe	
Lat/Long:			Field Screening:			Hole Diameter:		Total Depth: 6'	
			Chloride, PID			-			
Comments: TD @ 6', chloride field screening values include 60% error factor									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0		0-4' sand, brown, no odor, no stain, well sorted, m-f, trace silt	
						1			
D	<186	0.0	N	PH02	2	2	SP-SM		
						3			
D	<186	0.0	N	PH02A	4	4		4'-6' sand w/ caliche, tan, no odor, no stain, well sorted, m-f, some pea-sized caliche gravel, non cohesive	
						5	SP		
D	<186	0.0	N	PH02B	6	6			
						7		TD @ 6'	
						8			
						9			
						10			
						11			
						12			
						13			
						14			
						15			
						16			
						17			
						18			
						19			
						20			
						21			
						22			
						23			
						24			

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220						BH or PH Name:		Date:			
						PH03		1/5/2021			
						Site Name:		PLU 15 TWR 104H			
						RP or Incident Number:		NRM2029649621			
						LTE Job Number:		TE012920150			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By SL		Method: Trackhoe	
Lat/Long:				Field Screening:		Hole Diameter:		Total Depth:		6'	
				Chloride, PID		-					
Comments: TD @ 6', chloride field screening values include 60% error factor											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
						0		0-4' sand, brown, no odor, no stain, well sorted, m-f, trace silt			
						1					
D	<186	0.4	N	PH03	2	2	SP-SM				
						3		4'-6' sand w/ caliche, tan, no odor, no stain, well sorted, m-f, some pea-sized caliche gravel, non cohesive			
D	<186	0.0	N	PH03A	4	4					
						5	SP				
D	<186	0.8	N	PH03B	6	6		TD @ 6'			
						7					
						8					
						9					
						10					
						11					
						12					
						13					
						14					
						15					
						16					
						17					
						18					
						19					
						20					
						21					
						22					
						23					
						24					

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

Certificate of Analysis Summary 676303



LT Environmental, Inc., Arvada, CO

Project Name: PLU 15 TWR 104 H

Project Id: 012920150

Date Received in Lab: Wed 10.28.2020 17:02

Contact: Dan Moir

Report Date: 11.04.2020 08:03

Project Location:

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	676303-001	676303-002	676303-003	676303-004	676303-005	676303-006
	Field Id:	SS01	SS02	SS03	SS04	SS05	SS06
	Depth:	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	10.28.2020 11:10	10.28.2020 11:20	10.28.2020 11:30	10.28.2020 11:40	10.28.2020 11:50	10.28.2020 12:00
BTEX by EPA 8021B	Extracted:	10.29.2020 10:30	10.29.2020 10:30	10.29.2020 10:30	10.29.2020 10:30	10.29.2020 10:30	10.29.2020 10:30
	Analyzed:	10.30.2020 11:55	10.30.2020 00:50	10.30.2020 11:00	10.30.2020 12:50	10.30.2020 13:45	10.30.2020 14:41
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.0498 0.0498	<0.00200 0.00200	<0.00198 0.00198	<0.251 0.251	<0.0499 0.0499	<0.250 0.250
Toluene		0.277 0.199	<0.00200 0.00200	<0.00198 0.00198	2.80 1.00	<0.0499 0.0499	3.02 0.998
Ethylbenzene		1.35 0.199	0.0193 0.00200	<0.00198 0.00198	4.40 1.00	1.02 0.200	6.08 0.998
m,p-Xylenes		12.9 0.398	0.278 0.00400	0.0142 0.00397	40.6 2.00	11.8 0.399	60.7 2.00
o-Xylene		4.31 0.199	0.103 0.00200	0.00912 0.00198	12.6 1.00	4.28 0.200	19.2 0.998
Total Xylenes		17.2 0.199	0.381 0.00200	0.0233 0.00198	53.2 1.00	16.1 0.200	79.9 0.998
Total BTEX		18.8 0.0498	0.400 0.00200	0.0233 0.00198	60.4 0.251	17.1 0.0499	89.0 0.250
Chloride by EPA 300	Extracted:	10.29.2020 12:11	10.29.2020 12:11	10.29.2020 12:11	10.29.2020 12:11	10.29.2020 12:11	10.29.2020 12:11
	Analyzed:	10.29.2020 15:26	10.29.2020 15:44	10.29.2020 15:50	10.29.2020 15:56	10.29.2020 16:02	10.29.2020 16:08
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		8000 101	9360 200	14000 200	4330 49.5	5310 49.7	2240 49.5
TPH by SW8015 Mod	Extracted:	10.30.2020 09:00	10.30.2020 09:00	10.30.2020 09:00	10.30.2020 09:00	10.30.2020 09:00	10.30.2020 09:00
	Analyzed:	10.30.2020 11:47	10.30.2020 12:07	10.30.2020 12:27	10.30.2020 12:47	10.30.2020 13:07	10.30.2020 13:27
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		990 251	443 251	<251 251	2620 502	1010 250	2110 250
Diesel Range Organics (DRO)		10900 251	8180 251	10200 251	32600 502	24300 250	18400 250
Motor Oil Range Hydrocarbons (MRO)		895 251	731 251	982 251	2630 502	1770 250	1670 250
Total GRO-DRO		11900 251	8620 251	10200 251	35200 502	25300 250	20500 250
Total TPH		12800 251	9350 251	11200 251	37900 502	27100 250	22200 250

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 676303

LT Environmental, Inc., Arvada, CO

Project Name: PLU 15 TWR 104 H

Project Id: 012920150

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed 10.28.2020 17:02

Report Date: 11.04.2020 08:03

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	676303-007	676303-008				
	Field Id:	SS07	SS08				
	Depth:	0.5- ft	0.5- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	10.28.2020 12:10	10.28.2020 12:20				
BTEX by EPA 8021B	Extracted:	10.29.2020 10:30	10.29.2020 10:30				
	Analyzed:	10.30.2020 15:36	10.29.2020 21:09				
	Units/RL:	mg/kg RL	mg/kg RL				
		0.223 0.199	<0.00200 0.00200				
Benzene		8.05 0.199	<0.00200 0.00200				
Toluene		4.56 0.199	<0.00200 0.00200				
Ethylbenzene		42.2 0.398	<0.00400 0.00400				
m,p-Xylenes		12.8 0.199	<0.00200 0.00200				
o-Xylene		55.0 0.199	<0.00200 0.00200				
Total Xylenes		67.8 0.199	<0.00200 0.00200				
Total BTEX							
Chloride by EPA 300	Extracted:	10.29.2020 12:11	11.02.2020 09:32				
	Analyzed:	10.29.2020 16:14	11.02.2020 16:38				
	Units/RL:	mg/kg RL	mg/kg RL				
		8440 100	17500 200				
Chloride							
TPH by SW8015 Mod	Extracted:	10.30.2020 09:00	10.30.2020 09:00				
	Analyzed:	10.30.2020 13:47	10.30.2020 10:47				
	Units/RL:	mg/kg RL	mg/kg RL				
		2960 503	<50.2 50.2				
Gasoline Range Hydrocarbons (GRO)		27200 503	1330 50.2				
Diesel Range Organics (DRO)		2300 503	187 50.2				
Motor Oil Range Hydrocarbons (MRO)		30200 503	1330 50.2				
Total GRO-DRO		32500 503	1520 50.2				
Total TPH							

BRL - Below Reporting Limit

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





Analytical Report 676303

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 15 TWR 104 H

012920150

11.04.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



11.04.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **676303**

PLU 15 TWR 104 H

Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 676303. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 676303 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 676303****LT Environmental, Inc., Arvada, CO**

PLU 15 TWR 104 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	10.28.2020 11:10	0.5 ft	676303-001
SS02	S	10.28.2020 11:20	0.5 ft	676303-002
SS03	S	10.28.2020 11:30	0.5 ft	676303-003
SS04	S	10.28.2020 11:40	0.5 ft	676303-004
SS05	S	10.28.2020 11:50	0.5 ft	676303-005
SS06	S	10.28.2020 12:00	0.5 ft	676303-006
SS07	S	10.28.2020 12:10	0.5 ft	676303-007
SS08	S	10.28.2020 12:20	0.5 ft	676303-008



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 15 TWR 104 H

Project ID: 012920150
Work Order Number(s): 676303

Report Date: 11.04.2020
Date Received: 10.28.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS01** Matrix: Soil Date Received: 10.28.2020 17:02
 Lab Sample Id: 676303-001 Date Collected: 10.28.2020 11:10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.29.2020 12:11 % Moisture:
 Seq Number: 3141014 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8000	101	mg/kg	10.29.2020 15:26		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.30.2020 09:00 % Moisture:
 Seq Number: 3141112 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	990	251	mg/kg	10.30.2020 11:47		5
Diesel Range Organics (DRO)	C10C28DRO	10900	251	mg/kg	10.30.2020 11:47		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	895	251	mg/kg	10.30.2020 11:47		5
Total GRO-DRO	PHC628	11900	251	mg/kg	10.30.2020 11:47		5
Total TPH	PHC635	12800	251	mg/kg	10.30.2020 11:47		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	10.30.2020 11:47	
o-Terphenyl	84-15-1	113	%	70-135	10.30.2020 11:47	



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS01**
Lab Sample Id: 676303-001

Matrix: Soil
Date Collected: 10.28.2020 11:10

Date Received: 10.28.2020 17:02
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.29.2020 10:30

% Moisture:
Basis: Wet Weight

Seq Number: 3141051

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0498	0.0498	mg/kg	10.30.2020 11:55	U	100
Toluene	108-88-3	0.277	0.199	mg/kg	10.30.2020 11:55		100
Ethylbenzene	100-41-4	1.35	0.199	mg/kg	10.30.2020 11:55		100
m,p-Xylenes	179601-23-1	12.9	0.398	mg/kg	10.30.2020 11:55		100
o-Xylene	95-47-6	4.31	0.199	mg/kg	10.30.2020 11:55		100
Total Xylenes	1330-20-7	17.2	0.199	mg/kg	10.30.2020 11:55		100
Total BTEX		18.8	0.0498	mg/kg	10.30.2020 11:55		100
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	10.30.2020 11:55		
1,4-Difluorobenzene	540-36-3	91	%	70-130	10.30.2020 11:55		



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS02**
Lab Sample Id: 676303-002

Matrix: Soil
Date Collected: 10.28.2020 11:20

Date Received: 10.28.2020 17:02
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.29.2020 12:11

% Moisture:
Basis: Wet Weight

Seq Number: 3141014

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9360	200	mg/kg	10.29.2020 15:44		20

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 10.30.2020 09:00

% Moisture:
Basis: Wet Weight

Seq Number: 3141112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	443	251	mg/kg	10.30.2020 12:07		5
Diesel Range Organics (DRO)	C10C28DRO	8180	251	mg/kg	10.30.2020 12:07		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	731	251	mg/kg	10.30.2020 12:07		5
Total GRO-DRO	PHC628	8620	251	mg/kg	10.30.2020 12:07		5
Total TPH	PHC635	9350	251	mg/kg	10.30.2020 12:07		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	10.30.2020 12:07	
o-Terphenyl	84-15-1	103	%	70-135	10.30.2020 12:07	



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS02**
Lab Sample Id: 676303-002

Matrix: Soil
Date Collected: 10.28.2020 11:20

Date Received: 10.28.2020 17:02
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.29.2020 10:30

% Moisture:
Basis: Wet Weight

Seq Number: 3141051

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.2020 00:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.30.2020 00:50	U	1
Ethylbenzene	100-41-4	0.0193	0.00200	mg/kg	10.30.2020 00:50		1
m,p-Xylenes	179601-23-1	0.278	0.00400	mg/kg	10.30.2020 00:50		1
o-Xylene	95-47-6	0.103	0.00200	mg/kg	10.30.2020 00:50		1
Total Xylenes	1330-20-7	0.381	0.00200	mg/kg	10.30.2020 00:50		1
Total BTEX		0.400	0.00200	mg/kg	10.30.2020 00:50		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	129	%	70-130	10.30.2020 00:50		
1,4-Difluorobenzene	540-36-3	91	%	70-130	10.30.2020 00:50		



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS03** Matrix: Soil Date Received: 10.28.2020 17:02
 Lab Sample Id: 676303-003 Date Collected: 10.28.2020 11:30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.29.2020 12:11 % Moisture:
 Seq Number: 3141014 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14000	200	mg/kg	10.29.2020 15:50		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.30.2020 09:00 % Moisture:
 Seq Number: 3141112 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<251	251	mg/kg	10.30.2020 12:27	U	5
Diesel Range Organics (DRO)	C10C28DRO	10200	251	mg/kg	10.30.2020 12:27		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	982	251	mg/kg	10.30.2020 12:27		5
Total GRO-DRO	PHC628	10200	251	mg/kg	10.30.2020 12:27		5
Total TPH	PHC635	11200	251	mg/kg	10.30.2020 12:27		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	10.30.2020 12:27	
o-Terphenyl	84-15-1	110	%	70-135	10.30.2020 12:27	



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS03**
Lab Sample Id: 676303-003

Matrix: Soil
Date Collected: 10.28.2020 11:30

Date Received: 10.28.2020 17:02
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.29.2020 10:30

% Moisture:
Basis: Wet Weight

Seq Number: 3141051

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.30.2020 11:00	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.30.2020 11:00	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.30.2020 11:00	U	1
m,p-Xylenes	179601-23-1	0.0142	0.00397	mg/kg	10.30.2020 11:00		1
o-Xylene	95-47-6	0.00912	0.00198	mg/kg	10.30.2020 11:00		1
Total Xylenes	1330-20-7	0.0233	0.00198	mg/kg	10.30.2020 11:00		1
Total BTEX		0.0233	0.00198	mg/kg	10.30.2020 11:00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	10.30.2020 11:00	
4-Bromofluorobenzene	460-00-4	102	%	70-130	10.30.2020 11:00	



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS04** Matrix: Soil Date Received: 10.28.2020 17:02
 Lab Sample Id: 676303-004 Date Collected: 10.28.2020 11:40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.29.2020 12:11 % Moisture:
 Seq Number: 3141014 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4330	49.5	mg/kg	10.29.2020 15:56		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.30.2020 09:00 % Moisture:
 Seq Number: 3141112 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	2620	502	mg/kg	10.30.2020 12:47		10
Diesel Range Organics (DRO)	C10C28DRO	32600	502	mg/kg	10.30.2020 12:47		10
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	2630	502	mg/kg	10.30.2020 12:47		10
Total GRO-DRO	PHC628	35200	502	mg/kg	10.30.2020 12:47		10
Total TPH	PHC635	37900	502	mg/kg	10.30.2020 12:47		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	10.30.2020 12:47	
o-Terphenyl	84-15-1	112	%	70-135	10.30.2020 12:47	



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS04**
Lab Sample Id: 676303-004

Matrix: Soil
Date Collected: 10.28.2020 11:40

Date Received: 10.28.2020 17:02
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.29.2020 10:30

% Moisture:
Basis: Wet Weight

Seq Number: 3141051

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.251	0.251	mg/kg	10.30.2020 12:50	U	500
Toluene	108-88-3	2.80	1.00	mg/kg	10.30.2020 12:50		500
Ethylbenzene	100-41-4	4.40	1.00	mg/kg	10.30.2020 12:50		500
m,p-Xylenes	179601-23-1	40.6	2.00	mg/kg	10.30.2020 12:50		500
o-Xylene	95-47-6	12.6	1.00	mg/kg	10.30.2020 12:50		500
Total Xylenes	1330-20-7	53.2	1.00	mg/kg	10.30.2020 12:50		500
Total BTEX		60.4	0.251	mg/kg	10.30.2020 12:50		500
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	93	%	70-130	10.30.2020 12:50		
4-Bromofluorobenzene	460-00-4	84	%	70-130	10.30.2020 12:50		



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS05** Matrix: Soil Date Received: 10.28.2020 17:02
 Lab Sample Id: 676303-005 Date Collected: 10.28.2020 11:50 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.29.2020 12:11 % Moisture:
 Seq Number: 3141014 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5310	49.7	mg/kg	10.29.2020 16:02		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.30.2020 09:00 % Moisture:
 Seq Number: 3141112 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	1010	250	mg/kg	10.30.2020 13:07		5
Diesel Range Organics (DRO)	C10C28DRO	24300	250	mg/kg	10.30.2020 13:07		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1770	250	mg/kg	10.30.2020 13:07		5
Total GRO-DRO	PHC628	25300	250	mg/kg	10.30.2020 13:07		5
Total TPH	PHC635	27100	250	mg/kg	10.30.2020 13:07		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	10.30.2020 13:07	
o-Terphenyl	84-15-1	108	%	70-135	10.30.2020 13:07	



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS05**
Lab Sample Id: 676303-005

Matrix: Soil
Date Collected: 10.28.2020 11:50

Date Received: 10.28.2020 17:02
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.29.2020 10:30

% Moisture:
Basis: Wet Weight

Seq Number: 3141051

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0499	0.0499	mg/kg	10.30.2020 13:45	U	100
Toluene	108-88-3	<0.0499	0.0499	mg/kg	10.30.2020 13:45	U	100
Ethylbenzene	100-41-4	1.02	0.200	mg/kg	10.30.2020 13:45		100
m,p-Xylenes	179601-23-1	11.8	0.399	mg/kg	10.30.2020 13:45		100
o-Xylene	95-47-6	4.28	0.200	mg/kg	10.30.2020 13:45		100
Total Xylenes	1330-20-7	16.1	0.200	mg/kg	10.30.2020 13:45		100
Total BTEX		17.1	0.0499	mg/kg	10.30.2020 13:45		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	10.30.2020 13:45	
4-Bromofluorobenzene	460-00-4	88	%	70-130	10.30.2020 13:45	



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS06** Matrix: Soil Date Received: 10.28.2020 17:02
 Lab Sample Id: 676303-006 Date Collected: 10.28.2020 12:00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.29.2020 12:11 % Moisture:
 Seq Number: 3141014 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2240	49.5	mg/kg	10.29.2020 16:08		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.30.2020 09:00 % Moisture:
 Seq Number: 3141112 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	2110	250	mg/kg	10.30.2020 13:27		5
Diesel Range Organics (DRO)	C10C28DRO	18400	250	mg/kg	10.30.2020 13:27		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1670	250	mg/kg	10.30.2020 13:27		5
Total GRO-DRO	PHC628	20500	250	mg/kg	10.30.2020 13:27		5
Total TPH	PHC635	22200	250	mg/kg	10.30.2020 13:27		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	10.30.2020 13:27	
o-Terphenyl	84-15-1	119	%	70-135	10.30.2020 13:27	



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS06**
Lab Sample Id: 676303-006

Matrix: Soil
Date Collected: 10.28.2020 12:00

Date Received: 10.28.2020 17:02
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.29.2020 10:30

% Moisture:
Basis: Wet Weight

Seq Number: 3141051

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.250	0.250	mg/kg	10.30.2020 14:41	U	500
Toluene	108-88-3	3.02	0.998	mg/kg	10.30.2020 14:41		500
Ethylbenzene	100-41-4	6.08	0.998	mg/kg	10.30.2020 14:41		500
m,p-Xylenes	179601-23-1	60.7	2.00	mg/kg	10.30.2020 14:41		500
o-Xylene	95-47-6	19.2	0.998	mg/kg	10.30.2020 14:41		500
Total Xylenes	1330-20-7	79.9	0.998	mg/kg	10.30.2020 14:41		500
Total BTEX		89.0	0.250	mg/kg	10.30.2020 14:41		500
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	10.30.2020 14:41		
1,4-Difluorobenzene	540-36-3	92	%	70-130	10.30.2020 14:41		



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS07** Matrix: Soil Date Received: 10.28.2020 17:02
 Lab Sample Id: 676303-007 Date Collected: 10.28.2020 12:10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.29.2020 12:11 % Moisture:
 Seq Number: 3141014 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8440	100	mg/kg	10.29.2020 16:14		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.30.2020 09:00 % Moisture:
 Seq Number: 3141112 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	2960	503	mg/kg	10.30.2020 13:47		10
Diesel Range Organics (DRO)	C10C28DRO	27200	503	mg/kg	10.30.2020 13:47		10
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	2300	503	mg/kg	10.30.2020 13:47		10
Total GRO-DRO	PHC628	30200	503	mg/kg	10.30.2020 13:47		10
Total TPH	PHC635	32500	503	mg/kg	10.30.2020 13:47		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	10.30.2020 13:47	
o-Terphenyl	84-15-1	115	%	70-135	10.30.2020 13:47	



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS07**
Lab Sample Id: 676303-007

Matrix: Soil
Date Collected: 10.28.2020 12:10

Date Received: 10.28.2020 17:02
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.29.2020 10:30

% Moisture:
Basis: Wet Weight

Seq Number: 3141051

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.223	0.199	mg/kg	10.30.2020 15:36		100
Toluene	108-88-3	8.05	0.199	mg/kg	10.30.2020 15:36		100
Ethylbenzene	100-41-4	4.56	0.199	mg/kg	10.30.2020 15:36		100
m,p-Xylenes	179601-23-1	42.2	0.398	mg/kg	10.30.2020 15:36		100
o-Xylene	95-47-6	12.8	0.199	mg/kg	10.30.2020 15:36		100
Total Xylenes	1330-20-7	55.0	0.199	mg/kg	10.30.2020 15:36		100
Total BTEX		67.8	0.199	mg/kg	10.30.2020 15:36		100
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	10.30.2020 15:36		
1,4-Difluorobenzene	540-36-3	91	%	70-130	10.30.2020 15:36		



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS08** Matrix: Soil Date Received: 10.28.2020 17:02
 Lab Sample Id: 676303-008 Date Collected: 10.28.2020 12:20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 11.02.2020 09:32 % Moisture:
 Seq Number: 3141204 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17500	200	mg/kg	11.02.2020 16:38		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.30.2020 09:00 % Moisture:
 Seq Number: 3141112 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.30.2020 10:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	1330	50.2	mg/kg	10.30.2020 10:47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	187	50.2	mg/kg	10.30.2020 10:47		1
Total GRO-DRO	PHC628	1330	50.2	mg/kg	10.30.2020 10:47		1
Total TPH	PHC635	1520	50.2	mg/kg	10.30.2020 10:47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	125	%	70-135	10.30.2020 10:47	
o-Terphenyl	84-15-1	125	%	70-135	10.30.2020 10:47	



Certificate of Analytical Results 676303

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SS08**
Lab Sample Id: 676303-008

Matrix: Soil
Date Collected: 10.28.2020 12:20

Date Received: 10.28.2020 17:02
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.29.2020 10:30

% Moisture:
Basis: Wet Weight

Seq Number: 3141051

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.29.2020 21:09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.29.2020 21:09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.29.2020 21:09	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.29.2020 21:09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.29.2020 21:09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.29.2020 21:09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.29.2020 21:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	87	%	70-130	10.29.2020 21:09		
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.29.2020 21:09		



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



LT Environmental, Inc.

PLU 15 TWR 104 H

Analytical Method: Chloride by EPA 300

Seq Number: 3141014

MB Sample Id: 7714170-1-BLK

Matrix: Solid

LCS Sample Id: 7714170-1-BKS

Prep Method: E300P

Date Prep: 10.29.2020

LCSD Sample Id: 7714170-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	255	102	247	99	90-110	3	20	mg/kg	10.29.2020 13:20	

Analytical Method: Chloride by EPA 300

Seq Number: 3141204

MB Sample Id: 7714266-1-BLK

Matrix: Solid

LCS Sample Id: 7714266-1-BKS

Prep Method: E300P

Date Prep: 11.02.2020

LCSD Sample Id: 7714266-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	249	100	248	99	90-110	0	20	mg/kg	11.02.2020 14:15	

Analytical Method: Chloride by EPA 300

Seq Number: 3141014

Parent Sample Id: 676154-005

Matrix: Soil

MS Sample Id: 676154-005 S

Prep Method: E300P

Date Prep: 10.29.2020

MSD Sample Id: 676154-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2080	200	2260	90	2270	94	90-110	0	20	mg/kg	10.29.2020 13:38	

Analytical Method: Chloride by EPA 300

Seq Number: 3141014

Parent Sample Id: 676302-001

Matrix: Soil

MS Sample Id: 676302-001 S

Prep Method: E300P

Date Prep: 10.29.2020

MSD Sample Id: 676302-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	222	201	426	101	427	101	90-110	0	20	mg/kg	10.29.2020 14:56	

Analytical Method: Chloride by EPA 300

Seq Number: 3141204

Parent Sample Id: 676444-008

Matrix: Soil

MS Sample Id: 676444-008 S

Prep Method: E300P

Date Prep: 11.02.2020

MSD Sample Id: 676444-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	116	199	318	102	320	102	90-110	1	20	mg/kg	11.02.2020 14:37	

Analytical Method: Chloride by EPA 300

Seq Number: 3141204

Parent Sample Id: 676444-018

Matrix: Soil

MS Sample Id: 676444-018 S

Prep Method: E300P

Date Prep: 11.02.2020

MSD Sample Id: 676444-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	190	200	394	102	393	102	90-110	0	20	mg/kg	11.02.2020 15:54	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



LT Environmental, Inc.

PLU 15 TWR 104 H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3141112

MB Sample Id: 7714246-1-BLK

Matrix: Solid

LCS Sample Id: 7714246-1-BKS

Prep Method: SW8015P

Date Prep: 10.30.2020

LCSD Sample Id: 7714246-1-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	985	99	989	99	70-135	0	35	mg/kg	10.30.2020 10:07	
Diesel Range Organics (DRO)	<50.0	1000	854	85	966	97	70-135	12	35	mg/kg	10.30.2020 10:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		90		127		70-135	%	10.30.2020 10:07
o-Terphenyl	116		81		116		70-135	%	10.30.2020 10:07

Analytical Method: TPH by SW8015 Mod

Seq Number: 3141112

Matrix: Solid

Prep Method: SW8015P

Date Prep: 10.30.2020

MB Sample Id: 7714246-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.30.2020 09:47	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3141112

Matrix: Soil

Prep Method: SW8015P

Date Prep: 10.30.2020

Parent Sample Id: 676303-008

MS Sample Id: 676303-008 S

MSD Sample Id: 676303-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	996	921	92	936	94	70-135	2	35	mg/kg	10.30.2020 11:07	
Diesel Range Organics (DRO)	1330	996	2430	110	2510	118	70-135	3	35	mg/kg	10.30.2020 11:07	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		132		70-135	%	10.30.2020 11:07
o-Terphenyl	134		116		70-135	%	10.30.2020 11:07

Analytical Method: BTEX by EPA 8021B

Seq Number: 3141051

Matrix: Solid

Prep Method: SW5035A

Date Prep: 10.29.2020

MB Sample Id: 7714168-1-BLK

LCS Sample Id: 7714168-1-BKS

LCSD Sample Id: 7714168-1-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	0.113	113	0.106	106	70-130	6	35	mg/kg	10.29.2020 12:27	
Toluene	<0.00200	0.100	0.108	108	0.101	101	70-130	7	35	mg/kg	10.29.2020 12:27	
Ethylbenzene	<0.00200	0.100	0.0973	97	0.0922	92	71-129	5	35	mg/kg	10.29.2020 12:27	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.185	93	70-135	5	35	mg/kg	10.29.2020 12:27	
o-Xylene	<0.00200	0.100	0.0972	97	0.0922	92	71-133	5	35	mg/kg	10.29.2020 12:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		99		70-130	%	10.29.2020 12:27
4-Bromofluorobenzene	84		85		83		70-130	%	10.29.2020 12:27

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
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



LT Environmental, Inc.

PLU 15 TWR 104 H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3141051

Parent Sample Id: 676302-001

Matrix: Soil

MS Sample Id: 676302-001 S

Prep Method: SW5035A

Date Prep: 10.29.2020

MSD Sample Id: 676302-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.116	116	0.117	117	70-130	1	35	mg/kg	10.29.2020 13:11	
Toluene	<0.00200	0.100	0.112	112	0.112	112	70-130	0	35	mg/kg	10.29.2020 13:11	
Ethylbenzene	<0.00200	0.100	0.103	103	0.102	102	71-129	1	35	mg/kg	10.29.2020 13:11	
m,p-Xylenes	<0.00400	0.200	0.208	104	0.206	103	70-135	1	35	mg/kg	10.29.2020 13:11	
o-Xylene	<0.00200	0.100	0.101	101	0.101	101	71-133	0	35	mg/kg	10.29.2020 13:11	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		98		70-130	%	10.29.2020 13:11
4-Bromofluorobenzene	84		83		70-130	%	10.29.2020 13:11

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



Chain of Custody

Work Order No: 1676303

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296

Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Litrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	slc@ltenv.com, dmoir@ltenv.com, kennedy@ltenv.com

Program: ☒ UST/PST ☐ RP ☐ Brownfields ☐ RRC ☐ Superfund State of Project:	
Reporting Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐	Deliverables: EDD ☐ ADAPT ☐ Other: ☐

Project Name:	PLU 15 TWR 104H	Turn Around	
Project Number:	012920150	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

Temperature (°C):	1.2/1.6	Temp Blank:	☒ Yes ☐ No	Wet Ice:	☒ Yes ☐ No
Received Intact:	☒ Yes ☐ No	Thermometer ID	1-NM-001		
Cooler Custody Seals:	☒ Yes ☐ No	Correction Factor:	-0.2		
Sample Custody Seals:	☒ Yes ☐ No	Total Containers:	9		

Sample Identification					Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA 8015)	BTEX (EPA 8015)	Chloride (EPA 8015)	lab, if received by 4:30pm																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		10-28-20 1702			
		4			
		6			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.28.2020 05.02.00 PM

Work Order #: 676303

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#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)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples recieved in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 10.28.2020

Checklist reviewed by:



Jessica Kramer

Date: 10.29.2020

Certificate of Analysis Summary 681811



LT Environmental, Inc., Arvada, CO

Project Name: PLU 15 TWR 104 H

Project Id: 012920150
Contact: Dan Moir
Project Location: Eddy County, New Mexico

Date Received in Lab: Fri 12.18.2020 12:15
Report Date: 12.28.2020 11:42
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	681811-001	681811-002	681811-003	681811-004	681811-005	681811-006
	<i>Field Id:</i>	FS01	FS02	FS03	FS04	FS05	FS06
	<i>Depth:</i>	2- ft	3- ft	3- ft	3- ft	3- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.17.2020 09:25	12.17.2020 10:53	12.17.2020 10:54	12.17.2020 10:57	12.17.2020 11:00	12.17.2020 11:04
BTEX by EPA 8021B	<i>Extracted:</i>	12.18.2020 18:01	12.18.2020 18:01	12.18.2020 18:01	12.18.2020 18:01	12.18.2020 18:01	12.18.2020 18:01
	<i>Analyzed:</i>	12.19.2020 04:54	12.19.2020 05:16	12.19.2020 05:39	12.19.2020 06:01	12.19.2020 06:23	12.19.2020 06:46
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00401 0.00401	<0.00397 0.00397	<0.00399 0.00399	<0.00398 0.00398	<0.00399 0.00399	<0.00403 0.00403
o-Xylene		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	12.18.2020 17:00	12.18.2020 17:00	12.18.2020 17:00	12.18.2020 17:00	12.18.2020 17:00	12.18.2020 17:00
	<i>Analyzed:</i>	12.19.2020 20:34	12.19.2020 20:52	12.19.2020 20:58	12.19.2020 21:04	12.19.2020 21:10	12.19.2020 21:28
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		10.2 9.94	<10.1 10.1	<9.96 9.96	13.8 9.94	12.3 9.98	36.8 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	12.19.2020 11:00	12.19.2020 11:00	12.19.2020 11:00	12.19.2020 11:00	12.19.2020 11:00	12.19.2020 11:00
	<i>Analyzed:</i>	12.19.2020 14:01	12.19.2020 15:01	12.19.2020 15:21	12.19.2020 15:41	12.19.2020 16:01	12.19.2020 16:21
	<i>Units/RL:</i>	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	<49.9 49.9	<49.9 49.9	<50.3 50.3	<49.8 49.8	<50.1 50.1
Diesel Range Organics (DRO)		<49.9 49.9	<49.9 49.9	<49.9 49.9	<50.3 50.3	<49.8 49.8	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.9 49.9	<49.9 49.9	<50.3 50.3	<49.8 49.8	<50.1 50.1
Total GRO-DRO		<49.9 49.9	<49.9 49.9	<49.9 49.9	<50.3 50.3	<49.8 49.8	<50.1 50.1
Total TPH		<49.9 49.9	<49.9 49.9	<49.9 49.9	<50.3 50.3	<49.8 49.8	<50.1 50.1

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 681811



LT Environmental, Inc., Arvada, CO

Project Name: PLU 15 TWR 104 H

Project Id: 012920150
Contact: Dan Moir
Project Location: Eddy County, New Mexico

Date Received in Lab: Fri 12.18.2020 12:15
Report Date: 12.28.2020 11:42
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	681811-007	681811-008	681811-009	681811-010	681811-011	681811-012
	<i>Field Id:</i>	FS07	FS08	FS09	FS10	FS11	SW01
	<i>Depth:</i>	3- ft	3- ft	3- ft	3- ft	3- ft	0-3 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.17.2020 11:05	12.17.2020 11:07	12.17.2020 11:09	12.17.2020 11:12	12.17.2020 11:14	12.17.2020 11:25
BTEX by EPA 8021B	<i>Extracted:</i>	12.18.2020 18:01	12.18.2020 18:01	12.18.2020 18:01	12.18.2020 18:01	12.18.2020 18:01	12.18.2020 18:01
	<i>Analyzed:</i>	12.19.2020 07:08	12.19.2020 07:31	12.19.2020 07:53	12.19.2020 08:16	12.19.2020 09:33	12.19.2020 09:56
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00404 0.00404	<0.00401 0.00401	<0.00399 0.00399	<0.00398 0.00398	<0.00399 0.00399	<0.00398 0.00398
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	12.18.2020 17:00	12.18.2020 17:00	12.18.2020 17:00	12.18.2020 17:00	12.18.2020 17:00	12.18.2020 17:00
	<i>Analyzed:</i>	12.19.2020 21:33	12.19.2020 21:39	12.19.2020 21:45	12.19.2020 21:51	12.19.2020 21:57	12.19.2020 22:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		30.0 10.1	40.5 10.0	35.0 10.0	77.5 10.0	27.5 9.94	25.6 10.0
TPH by SW8015 Mod	<i>Extracted:</i>	12.19.2020 11:00	12.19.2020 11:00	12.19.2020 11:00	12.19.2020 11:00	12.19.2020 11:00	12.19.2020 11:00
	<i>Analyzed:</i>	12.19.2020 16:41	12.19.2020 17:01	12.19.2020 17:21	12.19.2020 17:41	12.22.2020 21:28	12.22.2020 21:48
	<i>Units/RL:</i>	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	<50.2 50.2	<49.9 49.9	<50.2 50.2	<49.8 49.8	<50.2 50.2
Diesel Range Organics (DRO)		<49.9 49.9	<50.2 50.2	<49.9 49.9	<50.2 50.2	<49.8 49.8	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.2 50.2	<49.9 49.9	<50.2 50.2	<49.8 49.8	<50.2 50.2
Total GRO-DRO		<49.9 49.9	<50.2 50.2	<49.9 49.9	<50.2 50.2	<49.8 49.8	<50.2 50.2
Total TPH		<49.9 49.9	<50.2 50.2	<49.9 49.9	<50.2 50.2	<49.8 49.8	<50.2 50.2

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 681811

LT Environmental, Inc., Arvada, CO

Project Name: PLU 15 TWR 104 H

Project Id: 012920150
 Contact: Dan Moir
 Project Location: Eddy County, New Mexico

Date Received in Lab: Fri 12.18.2020 12:15
 Report Date: 12.28.2020 11:42
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	681811-013	681811-014	681811-015			
	Field Id:	SW02	SW03	SW05			
	Depth:	0-3 ft	0-3 ft	0-3 ft			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	12.17.2020 11:28	12.17.2020 11:31	12.17.2020 11:48			
BTEX by EPA 8021B	Extracted:	12.18.2020 18:01	12.18.2020 18:01	12.18.2020 18:01			
	Analyzed:	12.19.2020 10:18	12.19.2020 10:40	12.19.2020 11:03			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200			
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200			
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200			
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200			
m,p-Xylenes		<0.00399 0.00399	<0.00398 0.00398	<0.00399 0.00399			
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200			
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200			
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200			
Chloride by EPA 300	Extracted:	12.18.2020 17:00	12.18.2020 17:00	12.18.2020 17:00			
	Analyzed:	12.19.2020 22:21	12.19.2020 22:39	12.19.2020 22:45			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
		11.1 10.0	32.5 9.94	58.9 9.98			
Chloride							
TPH by SW8015 Mod	Extracted:	12.19.2020 11:00	12.19.2020 11:00	12.19.2020 11:00			
	Analyzed:	12.22.2020 22:09	12.22.2020 22:30	12.22.2020 22:51			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
		<50.2 50.2	<50.0 50.0	<50.2 50.2			
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.0 50.0	<50.2 50.2			
Diesel Range Organics (DRO)		<50.2 50.2	<50.0 50.0	<50.2 50.2			
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.0 50.0	<50.2 50.2			
Total GRO-DRO		<50.2 50.2	<50.0 50.0	<50.2 50.2			
Total TPH		<50.2 50.2	<50.0 50.0	<50.2 50.2			

BRL - Below Reporting Limit

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





Analytical Report 681811

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 15 TWR 104 H

012920150

12.28.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



12.28.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **681811**

PLU 15 TWR 104 H

Project Address: Eddy County, New Mexico

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 681811. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 681811 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 681811****LT Environmental, Inc., Arvada, CO**

PLU 15 TWR 104 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	12.17.2020 09:25	2 ft	681811-001
FS02	S	12.17.2020 10:53	3 ft	681811-002
FS03	S	12.17.2020 10:54	3 ft	681811-003
FS04	S	12.17.2020 10:57	3 ft	681811-004
FS05	S	12.17.2020 11:00	3 ft	681811-005
FS06	S	12.17.2020 11:04	3 ft	681811-006
FS07	S	12.17.2020 11:05	3 ft	681811-007
FS08	S	12.17.2020 11:07	3 ft	681811-008
FS09	S	12.17.2020 11:09	3 ft	681811-009
FS10	S	12.17.2020 11:12	3 ft	681811-010
FS11	S	12.17.2020 11:14	3 ft	681811-011
SW01	S	12.17.2020 11:25	0 - 3 ft	681811-012
SW02	S	12.17.2020 11:28	0 - 3 ft	681811-013
SW03	S	12.17.2020 11:31	0 - 3 ft	681811-014
SW05	S	12.17.2020 11:48	0 - 3 ft	681811-015



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 15 TWR 104 H

Project ID: 012920150
Work Order Number(s): 681811

Report Date: 12.28.2020
Date Received: 12.18.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS01** Matrix: Soil Date Received: 12.18.2020 12:15
 Lab Sample Id: 681811-001 Date Collected: 12.17.2020 09:25 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.18.2020 17:00 % Moisture:
 Seq Number: 3145522 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.2	9.94	mg/kg	12.19.2020 20:34		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 11:00 % Moisture:
 Seq Number: 3145703 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.19.2020 14:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.19.2020 14:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.19.2020 14:01	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.19.2020 14:01	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.19.2020 14:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	12.19.2020 14:01	
o-Terphenyl	84-15-1	103	%	70-135	12.19.2020 14:01	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS01**
Lab Sample Id: 681811-001

Matrix: Soil
Date Collected: 12.17.2020 09:25

Date Received: 12.18.2020 12:15
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 18:01

% Moisture:
Basis: Wet Weight

Seq Number: 3145458

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 04:54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 04:54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 04:54	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.19.2020 04:54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 04:54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 04:54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 04:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.19.2020 04:54	
4-Bromofluorobenzene	460-00-4	88	%	70-130	12.19.2020 04:54	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS02**
Lab Sample Id: 681811-002

Matrix: Soil
Date Collected: 12.17.2020 10:53

Date Received: 12.18.2020 12:15
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145522

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	12.19.2020 20:52	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.19.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145703

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.19.2020 15:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.19.2020 15:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.19.2020 15:01	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.19.2020 15:01	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.19.2020 15:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.19.2020 15:01	
o-Terphenyl	84-15-1	112	%	70-135	12.19.2020 15:01	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS02**
Lab Sample Id: 681811-002

Matrix: Soil
Date Collected: 12.17.2020 10:53

Date Received: 12.18.2020 12:15
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 18:01

% Moisture:
Basis: Wet Weight

Seq Number: 3145458

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.19.2020 05:16	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.19.2020 05:16	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.19.2020 05:16	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.19.2020 05:16	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.19.2020 05:16	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.19.2020 05:16	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.19.2020 05:16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.19.2020 05:16		
4-Bromofluorobenzene	460-00-4	88	%	70-130	12.19.2020 05:16		



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS03**
Lab Sample Id: 681811-003

Matrix: Soil
Date Collected: 12.17.2020 10:54

Date Received: 12.18.2020 12:15
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145522

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	12.19.2020 20:58	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.19.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145703

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.19.2020 15:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.19.2020 15:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.19.2020 15:21	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.19.2020 15:21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.19.2020 15:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.19.2020 15:21	
o-Terphenyl	84-15-1	118	%	70-135	12.19.2020 15:21	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS03**
Lab Sample Id: 681811-003

Matrix: Soil
Date Collected: 12.17.2020 10:54

Date Received: 12.18.2020 12:15
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 18:01

% Moisture:
Basis: Wet Weight

Seq Number: 3145458

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 05:39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 05:39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 05:39	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.2020 05:39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 05:39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 05:39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 05:39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.19.2020 05:39		
4-Bromofluorobenzene	460-00-4	93	%	70-130	12.19.2020 05:39		



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS04** Matrix: Soil Date Received: 12.18.2020 12:15
 Lab Sample Id: 681811-004 Date Collected: 12.17.2020 10:57 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.18.2020 17:00 % Moisture:
 Seq Number: 3145522 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.8	9.94	mg/kg	12.19.2020 21:04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 11:00 % Moisture:
 Seq Number: 3145703 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.19.2020 15:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.19.2020 15:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.19.2020 15:41	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.19.2020 15:41	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.19.2020 15:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.19.2020 15:41	
o-Terphenyl	84-15-1	111	%	70-135	12.19.2020 15:41	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS04**
Lab Sample Id: 681811-004

Matrix: Soil
Date Collected: 12.17.2020 10:57

Date Received: 12.18.2020 12:15
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 18:01

% Moisture:
Basis: Wet Weight

Seq Number: 3145458

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.19.2020 06:01	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.19.2020 06:01	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.19.2020 06:01	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.19.2020 06:01	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.19.2020 06:01	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.19.2020 06:01	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.19.2020 06:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.19.2020 06:01		
4-Bromofluorobenzene	460-00-4	91	%	70-130	12.19.2020 06:01		



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS05** Matrix: Soil Date Received: 12.18.2020 12:15
 Lab Sample Id: 681811-005 Date Collected: 12.17.2020 11:00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.18.2020 17:00 % Moisture:
 Seq Number: 3145522 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.3	9.98	mg/kg	12.19.2020 21:10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 11:00 % Moisture:
 Seq Number: 3145703 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.19.2020 16:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.19.2020 16:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.19.2020 16:01	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.19.2020 16:01	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.19.2020 16:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	12.19.2020 16:01	
o-Terphenyl	84-15-1	113	%	70-135	12.19.2020 16:01	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS05**
Lab Sample Id: 681811-005

Matrix: Soil
Date Collected: 12.17.2020 11:00

Date Received: 12.18.2020 12:15
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 18:01

% Moisture:
Basis: Wet Weight

Seq Number: 3145458

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 06:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 06:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 06:23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.2020 06:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 06:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 06:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 06:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.19.2020 06:23	
4-Bromofluorobenzene	460-00-4	95	%	70-130	12.19.2020 06:23	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS06** Matrix: Soil Date Received: 12.18.2020 12:15
 Lab Sample Id: 681811-006 Date Collected: 12.17.2020 11:04 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.18.2020 17:00 % Moisture:
 Seq Number: 3145522 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	36.8	9.98	mg/kg	12.19.2020 21:28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 11:00 % Moisture:
 Seq Number: 3145703 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.19.2020 16:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.19.2020 16:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.19.2020 16:21	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.19.2020 16:21	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.19.2020 16:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	132	%	70-135	12.19.2020 16:21	
o-Terphenyl	84-15-1	106	%	70-135	12.19.2020 16:21	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS06**
Lab Sample Id: 681811-006

Matrix: Soil
Date Collected: 12.17.2020 11:04

Date Received: 12.18.2020 12:15
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 18:01

% Moisture:
Basis: Wet Weight

Seq Number: 3145458

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.19.2020 06:46	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.19.2020 06:46	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.19.2020 06:46	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.19.2020 06:46	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.19.2020 06:46	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.19.2020 06:46	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.19.2020 06:46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	12.19.2020 06:46		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.19.2020 06:46		



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LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS07** Matrix: Soil Date Received: 12.18.2020 12:15
 Lab Sample Id: 681811-007 Date Collected: 12.17.2020 11:05 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.18.2020 17:00 % Moisture:
 Seq Number: 3145522 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	30.0	10.1	mg/kg	12.19.2020 21:33		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 11:00 % Moisture:
 Seq Number: 3145703 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.19.2020 16:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.19.2020 16:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.19.2020 16:41	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.19.2020 16:41	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.19.2020 16:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-135	12.19.2020 16:41	
o-Terphenyl	84-15-1	97	%	70-135	12.19.2020 16:41	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS07**
Lab Sample Id: 681811-007

Matrix: Soil
Date Collected: 12.17.2020 11:05

Date Received: 12.18.2020 12:15
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 18:01

% Moisture:
Basis: Wet Weight

Seq Number: 3145458

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.19.2020 07:08	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.19.2020 07:08	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.19.2020 07:08	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.19.2020 07:08	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.19.2020 07:08	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.19.2020 07:08	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.19.2020 07:08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	12.19.2020 07:08		
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.19.2020 07:08		



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS08** Matrix: Soil Date Received: 12.18.2020 12:15
 Lab Sample Id: 681811-008 Date Collected: 12.17.2020 11:07 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.18.2020 17:00 % Moisture:
 Seq Number: 3145522 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	40.5	10.0	mg/kg	12.19.2020 21:39		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 11:00 % Moisture:
 Seq Number: 3145703 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.19.2020 17:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.19.2020 17:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.19.2020 17:01	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.19.2020 17:01	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.19.2020 17:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	12.19.2020 17:01	
o-Terphenyl	84-15-1	114	%	70-135	12.19.2020 17:01	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS08**
Lab Sample Id: 681811-008

Matrix: Soil
Date Collected: 12.17.2020 11:07

Date Received: 12.18.2020 12:15
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 18:01

% Moisture:
Basis: Wet Weight

Seq Number: 3145458

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 07:31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 07:31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 07:31	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.19.2020 07:31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 07:31	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 07:31	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 07:31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	12.19.2020 07:31		
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.19.2020 07:31		



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS09**
Lab Sample Id: 681811-009

Matrix: Soil
Date Collected: 12.17.2020 11:09

Date Received: 12.18.2020 12:15
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145522

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	35.0	10.0	mg/kg	12.19.2020 21:45		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.19.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145703

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.19.2020 17:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.19.2020 17:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.19.2020 17:21	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.19.2020 17:21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.19.2020 17:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.19.2020 17:21	
o-Terphenyl	84-15-1	118	%	70-135	12.19.2020 17:21	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS09**
Lab Sample Id: 681811-009

Matrix: Soil
Date Collected: 12.17.2020 11:09

Date Received: 12.18.2020 12:15
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 18:01

% Moisture:
Basis: Wet Weight

Seq Number: 3145458

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 07:53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 07:53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 07:53	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.2020 07:53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 07:53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 07:53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 07:53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.19.2020 07:53		
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.19.2020 07:53		



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS10** Matrix: Soil Date Received: 12.18.2020 12:15
 Lab Sample Id: 681811-010 Date Collected: 12.17.2020 11:12 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.18.2020 17:00 % Moisture:
 Seq Number: 3145522 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	77.5	10.0	mg/kg	12.19.2020 21:51		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 11:00 % Moisture:
 Seq Number: 3145703 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.19.2020 17:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.19.2020 17:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.19.2020 17:41	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.19.2020 17:41	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.19.2020 17:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.19.2020 17:41	
o-Terphenyl	84-15-1	101	%	70-135	12.19.2020 17:41	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS10**
Lab Sample Id: 681811-010

Matrix: Soil
Date Collected: 12.17.2020 11:12

Date Received: 12.18.2020 12:15
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 18:01

% Moisture:
Basis: Wet Weight

Seq Number: 3145458

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.19.2020 08:16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.19.2020 08:16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.19.2020 08:16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.19.2020 08:16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.19.2020 08:16	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.19.2020 08:16	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.19.2020 08:16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.19.2020 08:16		
4-Bromofluorobenzene	460-00-4	91	%	70-130	12.19.2020 08:16		



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS11** Matrix: Soil Date Received: 12.18.2020 12:15
 Lab Sample Id: 681811-011 Date Collected: 12.17.2020 11:14 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.18.2020 17:00 % Moisture:
 Seq Number: 3145522 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27.5	9.94	mg/kg	12.19.2020 21:57		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 11:00 % Moisture:
 Seq Number: 3145703 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.22.2020 21:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.22.2020 21:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.22.2020 21:28	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.22.2020 21:28	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.22.2020 21:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.22.2020 21:28	
o-Terphenyl	84-15-1	108	%	70-135	12.22.2020 21:28	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **FS11**
Lab Sample Id: 681811-011

Matrix: Soil
Date Collected: 12.17.2020 11:14

Date Received: 12.18.2020 12:15
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 18:01

% Moisture:
Basis: Wet Weight

Seq Number: 3145458

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 09:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 09:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 09:33	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.2020 09:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 09:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 09:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 09:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.19.2020 09:33		
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.19.2020 09:33		



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SW01**
Lab Sample Id: 681811-012

Matrix: Soil
Date Collected: 12.17.2020 11:25

Date Received: 12.18.2020 12:15
Sample Depth: 0 - 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145522

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	25.6	10.0	mg/kg	12.19.2020 22:15		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.19.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145703

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.22.2020 21:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.22.2020 21:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.22.2020 21:48	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.22.2020 21:48	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.22.2020 21:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.22.2020 21:48	
o-Terphenyl	84-15-1	114	%	70-135	12.22.2020 21:48	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SW01**
Lab Sample Id: 681811-012

Matrix: Soil
Date Collected: 12.17.2020 11:25

Date Received: 12.18.2020 12:15
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 18:01

% Moisture:
Basis: Wet Weight

Seq Number: 3145458

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.19.2020 09:56	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.19.2020 09:56	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.19.2020 09:56	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.19.2020 09:56	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.19.2020 09:56	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.19.2020 09:56	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.19.2020 09:56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	12.19.2020 09:56		
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.19.2020 09:56		



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SW02** Matrix: Soil Date Received: 12.18.2020 12:15
 Lab Sample Id: 681811-013 Date Collected: 12.17.2020 11:28 Sample Depth: 0 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.18.2020 17:00 % Moisture:
 Seq Number: 3145522 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.1	10.0	mg/kg	12.19.2020 22:21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 11:00 % Moisture:
 Seq Number: 3145703 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.22.2020 22:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.22.2020 22:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.22.2020 22:09	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.22.2020 22:09	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.22.2020 22:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	12.22.2020 22:09	
o-Terphenyl	84-15-1	106	%	70-135	12.22.2020 22:09	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SW02**
Lab Sample Id: 681811-013

Matrix: Soil
Date Collected: 12.17.2020 11:28

Date Received: 12.18.2020 12:15
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 18:01

% Moisture:
Basis: Wet Weight

Seq Number: 3145458

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 10:18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 10:18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 10:18	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.2020 10:18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 10:18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 10:18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 10:18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.19.2020 10:18		
4-Bromofluorobenzene	460-00-4	93	%	70-130	12.19.2020 10:18		



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SW03**
Lab Sample Id: 681811-014

Matrix: Soil
Date Collected: 12.17.2020 11:31

Date Received: 12.18.2020 12:15
Sample Depth: 0 - 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145522

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	32.5	9.94	mg/kg	12.19.2020 22:39		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.19.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145703

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.22.2020 22:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.22.2020 22:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.22.2020 22:30	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.22.2020 22:30	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.22.2020 22:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.22.2020 22:30	
o-Terphenyl	84-15-1	110	%	70-135	12.22.2020 22:30	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SW03**
Lab Sample Id: 681811-014

Matrix: Soil
Date Collected: 12.17.2020 11:31

Date Received: 12.18.2020 12:15
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 18:01

% Moisture:
Basis: Wet Weight

Seq Number: 3145458

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.19.2020 10:40	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.19.2020 10:40	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.19.2020 10:40	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.19.2020 10:40	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.19.2020 10:40	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.19.2020 10:40	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.19.2020 10:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	12.19.2020 10:40		
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.19.2020 10:40		



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SW05** Matrix: Soil Date Received: 12.18.2020 12:15
 Lab Sample Id: 681811-015 Date Collected: 12.17.2020 11:48 Sample Depth: 0 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.18.2020 17:00 % Moisture:
 Seq Number: 3145522 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	58.9	9.98	mg/kg	12.19.2020 22:45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 11:00 % Moisture:
 Seq Number: 3145703 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.22.2020 22:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.22.2020 22:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.22.2020 22:51	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.22.2020 22:51	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.22.2020 22:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	12.22.2020 22:51	
o-Terphenyl	84-15-1	106	%	70-135	12.22.2020 22:51	



Certificate of Analytical Results 681811

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104 H

Sample Id: **SW05**
Lab Sample Id: 681811-015

Matrix: Soil
Date Collected: 12.17.2020 11:48

Date Received: 12.18.2020 12:15
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 18:01

% Moisture:
Basis: Wet Weight

Seq Number: 3145458

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 11:03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 11:03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 11:03	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.2020 11:03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 11:03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 11:03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 11:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.19.2020 11:03		
4-Bromofluorobenzene	460-00-4	92	%	70-130	12.19.2020 11:03		



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



LT Environmental, Inc.

PLU 15 TWR 104 H

Analytical Method: Chloride by EPA 300

Seq Number: 3145522

MB Sample Id: 7717485-1-BLK

Matrix: Solid

LCS Sample Id: 7717485-1-BKS

Prep Method: E300P

Date Prep: 12.18.2020

LCSD Sample Id: 7717485-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	271	108	273	109	90-110	1	20	mg/kg	12.19.2020 20:22	

Analytical Method: Chloride by EPA 300

Seq Number: 3145522

Parent Sample Id: 681811-001

Matrix: Soil

MS Sample Id: 681811-001 S

Prep Method: E300P

Date Prep: 12.18.2020

MSD Sample Id: 681811-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.2	200	222	106	223	106	90-110	0	20	mg/kg	12.19.2020 20:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3145522

Parent Sample Id: 681811-011

Matrix: Soil

MS Sample Id: 681811-011 S

Prep Method: E300P

Date Prep: 12.18.2020

MSD Sample Id: 681811-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.5	199	243	108	244	108	90-110	0	20	mg/kg	12.19.2020 22:03	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3145703

MB Sample Id: 7717504-1-BLK

Matrix: Solid

LCS Sample Id: 7717504-1-BKS

Prep Method: SW8015P

Date Prep: 12.19.2020

LCSD Sample Id: 7717504-1-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	1020	102	914	91	70-135	11	35	mg/kg	12.19.2020 13:21	
Diesel Range Organics (DRO)	<50.0	1000	1120	112	1100	110	70-135	2	35	mg/kg	12.19.2020 13:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		92		112		70-135	%	12.19.2020 13:21
o-Terphenyl	108		92		109		70-135	%	12.19.2020 13:21

Analytical Method: TPH by SW8015 Mod

Seq Number: 3145703

Matrix: Solid

MB Sample Id: 7717504-1-BLK

Prep Method: SW8015P

Date Prep: 12.19.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.19.2020 13:01	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



LT Environmental, Inc.

PLU 15 TWR 104 H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3145703

Parent Sample Id: 681811-001

Matrix: Soil

MS Sample Id: 681811-001 S

Prep Method: SW8015P

Date Prep: 12.19.2020

MSD Sample Id: 681811-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	1140	114	1060	106	70-135	7	35	mg/kg	12.19.2020 14:21	
Diesel Range Organics (DRO)	<50.0	999	1070	107	1110	111	70-135	4	35	mg/kg	12.19.2020 14:21	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		98		70-135	%	12.19.2020 14:21
o-Terphenyl	115		103		70-135	%	12.19.2020 14:21

Analytical Method: BTEX by EPA 8021B

Seq Number: 3145458

MB Sample Id: 7717486-1-BLK

Matrix: Solid

LCS Sample Id: 7717486-1-BKS

Prep Method: SW5035A

Date Prep: 12.18.2020

LCSD Sample Id: 7717486-1-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	0.0954	95	0.100	100	70-130	5	35	mg/kg	12.19.2020 02:51	
Toluene	<0.00200	0.100	0.0910	91	0.0971	97	70-130	6	35	mg/kg	12.19.2020 02:51	
Ethylbenzene	<0.00200	0.100	0.0843	84	0.0902	90	71-129	7	35	mg/kg	12.19.2020 02:51	
m,p-Xylenes	<0.00400	0.200	0.171	86	0.182	91	70-135	6	35	mg/kg	12.19.2020 02:51	
o-Xylene	<0.00200	0.100	0.0854	85	0.0911	91	71-133	6	35	mg/kg	12.19.2020 02:51	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		95		96		70-130	%	12.19.2020 02:51
4-Bromofluorobenzene	86		86		88		70-130	%	12.19.2020 02:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3145458

Parent Sample Id: 681811-001

Matrix: Soil

MS Sample Id: 681811-001 S

Prep Method: SW5035A

Date Prep: 12.18.2020

MSD Sample Id: 681811-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0918	92	0.115	115	70-130	22	35	mg/kg	12.19.2020 03:36	
Toluene	<0.00201	0.100	0.0887	89	0.108	108	70-130	20	35	mg/kg	12.19.2020 03:36	
Ethylbenzene	<0.00201	0.100	0.0810	81	0.0965	97	71-129	17	35	mg/kg	12.19.2020 03:36	
m,p-Xylenes	<0.00402	0.201	0.165	82	0.197	99	70-135	18	35	mg/kg	12.19.2020 03:36	
o-Xylene	<0.00201	0.100	0.0842	84	0.100	100	71-133	17	35	mg/kg	12.19.2020 03:36	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		94		70-130	%	12.19.2020 03:36
4-Bromofluorobenzene	86		86		70-130	%	12.19.2020 03:36

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



Chain of Custody

Work Order No: 1081811

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000

www.xenco.com Page 1 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	ymmathier@ltenv.com, dmoir@ltenv.com

Program: UST/PST	☐ RP	☐ Brownfields	☐ RC	☐ \$perfund
State of Project:				
Reporting Level II	☐ Level III	☐ ST/UST	☐ RP	☐ Level IV
Deliverables: EDD	☐	ADAPT	☐	Other:

Project Name:	PLU 15 TWR 104H	Turn Around	
Project Number:	0 12920150	Routine	☒
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT	Temp Blank:	☒ Yes	☐ No	Wet Ice:	☒ Yes	☐ No	
Temperature (°C):	1.4/1.2	Thermometer ID					
Received Intact:	☒ Yes	☐ No	Correction Factor: -0.2				
Cooler Custody Seals:	☒ Yes	☐ No	Total Containers: 15				
Sample Custody Seals:	☒ Yes	☐ No					

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EP	BTEX (E	Chloride	Sample Comments																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12/18/201	<i>[Signature]</i>	<i>[Signature]</i>	12/18/20 12:15



Chain of Custody

Work Order No: 1681811

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

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Page 2 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	wmather@ltenv.com, dmoir@ltenv.com

Program: ☒ UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund State of Project:	
Reporting Level II	☐ Level III ☐ ST/UST ☐ RP ☐ Level IV
Deliverables: EDD	☐ ADAPT ☐ Other:

Project Name:	PLU 15 TWR 104H	Turn Around	
Project Number:	012920150	Routine	☒
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet/Sec:	Yes	No
	Temperature (°C):	Thermometer ID				
	Received Intact:	Yes	No			
	Cooler Custody Seals:	Yes	No	Correction Factor:		
	Sample Custody Seals:	Yes	No	Total Containers:		

Sample Identification					Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EP)	BTEX (EP)	Chloride																Sample Comments
FS11					S	12/17/2020	11:14	3'	1	X	X	X																Composite
SW01					S	12/17/2020	11:25	0-3'	1	X	X	X																Composite
SW02					S	12/17/2020	11:28	0-3'	1	X	X	X																Composite
SW03					S	12/17/2020	11:31	0-3'	1	X	X	X																Composite
SW05					S	12/17/2020	11:48	0-3'	1	X	X	X																Composite
					</																							

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
 1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12/18/20 12:02	<i>[Signature]</i>	<i>[Signature]</i>	12/18/20 12:15

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12.18.2020 12.15.00 PM

Work Order #: 681811

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#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)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 12.18.2020

Checklist reviewed by:



Jessica Kramer

Date: 12.22.2020

Certificate of Analysis Summary 681869



LT Environmental, Inc., Arvada, CO

Project Name: PLU 15 TWR 104H

Project Id: 012920150
Contact: Dan Moir
Project Location: Eddy County, New Mexico

Date Received in Lab: Fri 12.18.2020 16:00
Report Date: 12.21.2020 13:00
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	681869-001	681869-002	681869-003	681869-004		
	<i>Field Id:</i>	FS12	FS15	FS20	FS28		
	<i>Depth:</i>	3- ft	3- ft	3- ft	3- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	12.18.2020 10:18	12.18.2020 10:25	12.18.2020 10:40	12.18.2020 10:58		
BTEX by EPA 8021B	<i>Extracted:</i>	12.18.2020 17:04	12.18.2020 17:04	12.18.2020 17:04	12.18.2020 17:04		
	<i>Analyzed:</i>	12.18.2020 22:08	12.18.2020 22:30	12.18.2020 22:53	12.18.2020 23:15		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200		
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200		
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200		
m,p-Xylenes		<0.00399 0.00399	<0.00401 0.00401	<0.00398 0.00398	<0.00399 0.00399		
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200		
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200		
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200		
Chloride by EPA 300	<i>Extracted:</i>	12.19.2020 12:00	12.19.2020 12:00	12.19.2020 12:00	12.19.2020 12:00		
	<i>Analyzed:</i>	12.19.2020 19:40	12.19.2020 19:46	12.19.2020 19:52	12.19.2020 19:58		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		128 9.94	57.4 9.98	17.4 9.92	23.8 10.0		
TPH by SW8015 Mod	<i>Extracted:</i>	12.19.2020 11:00	12.19.2020 11:00	12.19.2020 11:00	12.19.2020 11:00		
	<i>Analyzed:</i>	12.19.2020 14:01	12.19.2020 15:01	12.19.2020 15:21	12.19.2020 15:41		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.1 50.1	<50.0 50.0	<50.0 50.0		
Diesel Range Organics (DRO)		<49.9 49.9	<50.1 50.1	<50.0 50.0	<50.0 50.0		
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.1 50.1	<50.0 50.0	<50.0 50.0		
Total GRO-DRO		<49.9 49.9	<50.1 50.1	<50.0 50.0	<50.0 50.0		
Total TPH		<49.9 49.9	<50.1 50.1	<50.0 50.0	<50.0 50.0		

BRL - Below Reporting Limit

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



Analytical Report 681869

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 15 TWR 104H

012920150

12.21.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



12.21.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **681869**

PLU 15 TWR 104H

Project Address: Eddy County, New Mexico

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 681869. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 681869 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 681869****LT Environmental, Inc., Arvada, CO**

PLU 15 TWR 104H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS12	S	12.18.2020 10:18	3 ft	681869-001
FS15	S	12.18.2020 10:25	3 ft	681869-002
FS20	S	12.18.2020 10:40	3 ft	681869-003
FS28	S	12.18.2020 10:58	3 ft	681869-004



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 15 TWR 104H

Project ID: 012920150
Work Order Number(s): 681869

Report Date: 12.21.2020
Date Received: 12.18.2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 681869

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS12** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681869-001 Date Collected: 12.18.2020 10:18 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 12:00 % Moisture:
 Seq Number: 3145462 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	128	9.94	mg/kg	12.19.2020 19:40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 11:00 % Moisture:
 Seq Number: 3145521 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.19.2020 14:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.19.2020 14:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.19.2020 14:01	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.19.2020 14:01	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.19.2020 14:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.19.2020 14:01	
o-Terphenyl	84-15-1	105	%	70-135	12.19.2020 14:01	



Certificate of Analytical Results 681869

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS12**
Lab Sample Id: 681869-001

Matrix: Soil
Date Collected: 12.18.2020 10:18

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:04

% Moisture:
Basis: Wet Weight

Seq Number: 3145459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.18.2020 22:08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.18.2020 22:08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.18.2020 22:08	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.18.2020 22:08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.18.2020 22:08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.18.2020 22:08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.18.2020 22:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.18.2020 22:08	
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.18.2020 22:08	



Certificate of Analytical Results 681869

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS15** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681869-002 Date Collected: 12.18.2020 10:25 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 12:00 % Moisture:
 Seq Number: 3145462 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	57.4	9.98	mg/kg	12.19.2020 19:46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 11:00 % Moisture:
 Seq Number: 3145521 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.19.2020 15:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.19.2020 15:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.19.2020 15:01	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.19.2020 15:01	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.19.2020 15:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.19.2020 15:01	
o-Terphenyl	84-15-1	99	%	70-135	12.19.2020 15:01	



Certificate of Analytical Results 681869

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS15**
Lab Sample Id: 681869-002

Matrix: Soil
Date Collected: 12.18.2020 10:25

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:04

% Moisture:
Basis: Wet Weight

Seq Number: 3145459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.18.2020 22:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.18.2020 22:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.18.2020 22:30	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.18.2020 22:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.18.2020 22:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.18.2020 22:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.18.2020 22:30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.18.2020 22:30		
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.18.2020 22:30		



Certificate of Analytical Results 681869

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS20** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681869-003 Date Collected: 12.18.2020 10:40 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 12:00 % Moisture:
 Seq Number: 3145462 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.4	9.92	mg/kg	12.19.2020 19:52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 11:00 % Moisture:
 Seq Number: 3145521 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.19.2020 15:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.19.2020 15:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.19.2020 15:21	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.19.2020 15:21	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.19.2020 15:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.19.2020 15:21	
o-Terphenyl	84-15-1	105	%	70-135	12.19.2020 15:21	



Certificate of Analytical Results 681869

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS20**
Lab Sample Id: 681869-003

Matrix: Soil
Date Collected: 12.18.2020 10:40

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:04

% Moisture:
Basis: Wet Weight

Seq Number: 3145459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.18.2020 22:53	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.18.2020 22:53	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.18.2020 22:53	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.18.2020 22:53	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.18.2020 22:53	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.18.2020 22:53	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.18.2020 22:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.18.2020 22:53	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.18.2020 22:53	



Certificate of Analytical Results 681869

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS28**
Lab Sample Id: 681869-004

Matrix: Soil
Date Collected: 12.18.2020 10:58

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.19.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145462

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.8	10.0	mg/kg	12.19.2020 19:58		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.19.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145521

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.19.2020 15:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.19.2020 15:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.19.2020 15:41	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.19.2020 15:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.19.2020 15:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.19.2020 15:41	
o-Terphenyl	84-15-1	115	%	70-135	12.19.2020 15:41	



Certificate of Analytical Results 681869

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS28**
Lab Sample Id: 681869-004

Matrix: Soil
Date Collected: 12.18.2020 10:58

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:04

% Moisture:
Basis: Wet Weight

Seq Number: 3145459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.18.2020 23:15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.18.2020 23:15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.18.2020 23:15	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.18.2020 23:15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.18.2020 23:15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.18.2020 23:15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.18.2020 23:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.18.2020 23:15	
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.18.2020 23:15	



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



LT Environmental, Inc.

PLU 15 TWR 104H

Analytical Method: Chloride by EPA 300

Seq Number: 3145462

MB Sample Id: 7717458-1-BLK

Matrix: Solid

LCS Sample Id: 7717458-1-BKS

Prep Method: E300P

Date Prep: 12.18.2020

LCSD Sample Id: 7717458-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	237	95	246	98	90-110	4	20	mg/kg	12.19.2020 17:34	

Analytical Method: Chloride by EPA 300

Seq Number: 3145462

Parent Sample Id: 681592-010

Matrix: Soil

MS Sample Id: 681592-010 S

Prep Method: E300P

Date Prep: 12.18.2020

MSD Sample Id: 681592-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2570	199	2760	95	2760	95	90-110	0	20	mg/kg	12.19.2020 17:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3145462

Parent Sample Id: 681699-004

Matrix: Soil

MS Sample Id: 681699-004 S

Prep Method: E300P

Date Prep: 12.18.2020

MSD Sample Id: 681699-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	71.4	200	281	105	280	104	90-110	0	20	mg/kg	12.19.2020 19:16	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3145521

MB Sample Id: 7717503-1-BLK

Matrix: Solid

LCS Sample Id: 7717503-1-BKS

Prep Method: SW8015P

Date Prep: 12.19.2020

LCSD Sample Id: 7717503-1-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	1030	103	1050	105	70-135	2	35	mg/kg	12.19.2020 13:21	
Diesel Range Organics (DRO)	<50.0	1000	974	97	1120	112	70-135	14	35	mg/kg	12.19.2020 13:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		116		113		70-135	%	12.19.2020 13:21
o-Terphenyl	97		97		106		70-135	%	12.19.2020 13:21

Analytical Method: TPH by SW8015 Mod

Seq Number: 3145521

Matrix: Solid

MB Sample Id: 7717503-1-BLK

Prep Method: SW8015P

Date Prep: 12.19.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.19.2020 13:01	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



LT Environmental, Inc.
PLU 15 TWR 104H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3145521

Parent Sample Id: 681869-001

Matrix: Soil

MS Sample Id: 681869-001 S

Prep Method: SW8015P

Date Prep: 12.19.2020

MSD Sample Id: 681869-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	1110	111	1090	109	70-135	2	35	mg/kg	12.19.2020 14:21	
Diesel Range Organics (DRO)	<49.9	997	1220	122	1140	114	70-135	7	35	mg/kg	12.19.2020 14:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		125		70-135	%	12.19.2020 14:21
o-Terphenyl	109		99		70-135	%	12.19.2020 14:21

Analytical Method: BTEX by EPA 8021B

Seq Number: 3145459

MB Sample Id: 7717487-1-BLK

Matrix: Solid

LCS Sample Id: 7717487-1-BKS

Prep Method: SW5035A

Date Prep: 12.18.2020

LCSD Sample Id: 7717487-1-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	0.0929	93	0.0942	94	70-130	1	35	mg/kg	12.18.2020 20:03	
Toluene	<0.00200	0.100	0.0864	86	0.0938	94	70-130	8	35	mg/kg	12.18.2020 20:03	
Ethylbenzene	<0.00200	0.100	0.0916	92	0.0951	95	71-129	4	35	mg/kg	12.18.2020 20:03	
m,p-Xylenes	<0.00400	0.200	0.186	93	0.199	100	70-135	7	35	mg/kg	12.18.2020 20:03	
o-Xylene	<0.00200	0.100	0.0913	91	0.0969	97	71-133	6	35	mg/kg	12.18.2020 20:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		97		99		70-130	%	12.18.2020 20:03
4-Bromofluorobenzene	116		108		111		70-130	%	12.18.2020 20:03

Analytical Method: BTEX by EPA 8021B

Seq Number: 3145459

Parent Sample Id: 681869-001

Matrix: Soil

MS Sample Id: 681869-001 S

Prep Method: SW5035A

Date Prep: 12.18.2020

MSD Sample Id: 681869-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0961	96	0.0883	87	70-130	8	35	mg/kg	12.18.2020 20:48	
Toluene	<0.00200	0.100	0.0904	90	0.0796	79	70-130	13	35	mg/kg	12.18.2020 20:48	
Ethylbenzene	<0.00200	0.100	0.0922	92	0.0794	79	71-129	15	35	mg/kg	12.18.2020 20:48	
m,p-Xylenes	<0.00401	0.200	0.191	96	0.161	80	70-135	17	35	mg/kg	12.18.2020 20:48	
o-Xylene	<0.00200	0.100	0.0967	97	0.0834	83	71-133	15	35	mg/kg	12.18.2020 20:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		102		70-130	%	12.18.2020 20:48
4-Bromofluorobenzene	113		113		70-130	%	12.18.2020 20:48

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3333
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575-392-7560) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813)

Work Order No: 081801

Page 1 of 1

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Chain of Custody

Project Manager:		Dan Moir	Bill to: (if different)	Kyle Littell
Company Name:		LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:		3300 North A Street	Address:	
City, State ZIP:		Midland, Tx 79705	City, State ZIP:	
Phone:		(432) 236-3849	Email:	wmair@ltenv.com , dmoir@ltenv.com

Work Order Comments				
Program: UST/PST ☐ RP ☐ Growfields ☐ RC ☐ \$pertund ☐				
State of Project:				
Reporting Level II ☐ Level III ☐ \$T/UST ☐ RP ☐ Level IV ☐				
Deliverables: EDD ☐ ADAPT ☐ Other:				

ANALYSIS REQUEST						Work Order Notes	
Project Name:		PLU 15 TWR 104H		Turn Around			
Project Number:		012920150		Routine ☐			
P.O. Number:		Eddy		Rush: <i>Ady</i>			
Sampler's Name:		William Mather		Due Date:			
SAMPLE RECEIPT							
Temperature (°C):		2.0 / 1.8		Temp Blank: Yes No		Thermometer ID	
Received Intact:		Yes No					
Cooler Custody Seals:		Yes No		Correction Factor:		-0.2	
Sample Custody Seals:		Yes No		Total Containers:		4	
Number of Containers							
(PA 8015)							
(PA 8021)							
(EPA 300.0)							
TAT starts the day received by the lab. If received by 4:30pm							

[illegible]

Total	200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas	11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Tl	Sn	U	V	Zn
<i>Circle Method(s) and Metal(s) to be analyzed</i>			TCLP	/ SPLP	6010:	8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Tl	U												
			1631 / 245.1 / 7470 / 7471 : Hg																															

[illegible]

Certificate of Analysis Summary 681884



LT Environmental, Inc., Arvada, CO

Project Name: PLU 15 TWR 104H

Project Id: 012920150
Contact: Dan Moir
Project Location: Eddy County, New Mexico

Date Received in Lab: Fri 12.18.2020 16:00
Report Date: 12.28.2020 12:20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	681884-001	681884-002	681884-003	681884-004	681884-005	681884-006
	<i>Field Id:</i>	FS13	FS14	FS16	FS17	FS18	FS19
	<i>Depth:</i>	3- ft	3- ft	3- ft	3- ft	3- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.18.2020 10:20	12.18.2020 10:23	12.18.2020 10:28	12.18.2020 10:31	12.18.2020 10:34	12.18.2020 10:36
BTEX by EPA 8021B	<i>Extracted:</i>	12.18.2020 17:26	12.18.2020 17:26	12.18.2020 17:26	12.18.2020 17:26	12.18.2020 17:26	12.18.2020 17:26
	<i>Analyzed:</i>	12.19.2020 16:24	12.19.2020 16:46	12.19.2020 17:09	12.19.2020 17:31	12.19.2020 17:53	12.19.2020 18:16
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Toluene		<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
m,p-Xylenes		<0.00397 0.00397	<0.00401 0.00401	<0.00403 0.00403	<0.00398 0.00398	<0.00401 0.00401	<0.00396 0.00396
o-Xylene		<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Total BTEX		<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	12.19.2020 18:08	12.19.2020 18:08	12.19.2020 18:08	12.19.2020 18:08	12.19.2020 18:08	12.19.2020 18:08
	<i>Analyzed:</i>	12.21.2020 09:46	12.21.2020 10:04	12.21.2020 10:10	12.21.2020 10:16	12.21.2020 10:22	12.21.2020 10:40
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		46.5 9.92	48.8 10.0	12.8 9.94	36.2 9.96	37.7 9.98	15.2 9.94
TPH by SW8015 Mod	<i>Extracted:</i>	12.19.2020 13:46	12.19.2020 13:46	12.19.2020 13:46	12.19.2020 13:46	12.19.2020 13:46	12.19.2020 13:46
	<i>Analyzed:</i>	12.23.2020 02:19	12.23.2020 03:22	12.23.2020 03:43	12.23.2020 04:04	12.23.2020 04:25	12.23.2020 04:45
	<i>Units/RL:</i>	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	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.1 50.1
Diesel Range Organics (DRO)		<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.1 50.1
Total GRO-DRO		<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.1 50.1
Total TPH		<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.1 50.1

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 681884



LT Environmental, Inc., Arvada, CO

Project Name: PLU 15 TWR 104H

Project Id: 012920150
Contact: Dan Moir
Project Location: Eddy County, New Mexico

Date Received in Lab: Fri 12.18.2020 16:00
Report Date: 12.28.2020 12:20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	681884-007	681884-008	681884-009	681884-010	681884-011	681884-012
	<i>Field Id:</i>	FS21	FS22	FS25	FS26	FS27	SW04
	<i>Depth:</i>	3- ft	3- ft	3- ft	3- ft	3- ft	0-3 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.18.2020 10:43	12.18.2020 10:46	12.18.2020 10:52	12.18.2020 10:54	12.18.2020 10:55	12.18.2020 11:04
BTEX by EPA 8021B	<i>Extracted:</i>	12.18.2020 17:26	12.18.2020 17:26	12.18.2020 17:26	12.18.2020 17:26	12.18.2020 17:26	12.18.2020 17:26
	<i>Analyzed:</i>	12.19.2020 18:38	12.19.2020 19:00	12.19.2020 19:23	12.19.2020 19:45	12.19.2020 21:03	12.19.2020 21:25
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00403 0.00403	<0.00401 0.00401	<0.00400 0.00400	<0.00401 0.00401	<0.00402 0.00402	<0.00399 0.00399
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	12.19.2020 18:08	12.19.2020 18:08	12.19.2020 18:08	12.19.2020 18:08	12.19.2020 18:08	12.19.2020 18:08
	<i>Analyzed:</i>	12.21.2020 10:46	12.21.2020 10:52	12.21.2020 10:58	12.21.2020 11:04	12.21.2020 11:10	12.21.2020 11:40
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		13.4 9.92	16.3 9.92	57.7 9.98	40.8 9.92	<9.92 9.92	12.0 10.0
TPH by SW8015 Mod	<i>Extracted:</i>	12.19.2020 13:46	12.19.2020 13:46	12.19.2020 13:48	12.19.2020 13:48	12.19.2020 13:48	12.19.2020 13:48
	<i>Analyzed:</i>	12.23.2020 05:06	12.23.2020 05:26	12.23.2020 02:19	12.23.2020 03:22	12.23.2020 03:43	12.23.2020 04:04
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.2 50.2	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.3 50.3
Diesel Range Organics (DRO)		<50.2 50.2	<50.2 50.2	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.2 50.2	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.3 50.3
Total GRO-DRO		<50.2 50.2	<50.2 50.2	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.3 50.3
Total TPH		<50.2 50.2	<50.2 50.2	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.3 50.3

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 681884



LT Environmental, Inc., Arvada, CO

Project Name: PLU 15 TWR 104H

Project Id: 012920150
Contact: Dan Moir
Project Location: Eddy County, New Mexico

Date Received in Lab: Fri 12.18.2020 16:00
Report Date: 12.28.2020 12:20
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	681884-013	681884-014	681884-015	681884-016		
	<i>Field Id:</i>	SW06	SW07	SW08	SW09		
	<i>Depth:</i>	0-3 ft	0-3 ft	0-3 ft	0-3 ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	12.18.2020 11:09	12.18.2020 11:05	12.18.2020 11:12	12.18.2020 11:44		
BTEX by EPA 8021B	<i>Extracted:</i>	12.18.2020 17:26	12.18.2020 17:26	12.18.2020 17:26	12.18.2020 17:26		
	<i>Analyzed:</i>	12.19.2020 21:48	12.19.2020 22:10	12.19.2020 22:32	12.19.2020 22:55		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200		
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200		
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200		
m,p-Xylenes		<0.00400 0.00400	<0.00399 0.00399	<0.00398 0.00398	<0.00399 0.00399		
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200		
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200		
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200		
Chloride by EPA 300	<i>Extracted:</i>	12.19.2020 18:08	12.19.2020 18:08	12.19.2020 18:08	12.19.2020 18:08		
	<i>Analyzed:</i>	12.21.2020 11:46	12.21.2020 11:52	12.21.2020 11:58	12.21.2020 12:04		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		22.5 10.0	40.7 10.0	150 9.98	31.0 9.96		
TPH by SW8015 Mod	<i>Extracted:</i>	12.19.2020 13:48	12.19.2020 13:48	12.19.2020 13:48	12.19.2020 13:48		
	<i>Analyzed:</i>	12.23.2020 04:25	12.23.2020 04:45	12.23.2020 05:06	12.23.2020 05:26		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<50.3 50.3	<50.3 50.3		
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<50.3 50.3	<50.3 50.3		
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<50.3 50.3	<50.3 50.3		
Total GRO-DRO		<50.0 50.0	<50.0 50.0	<50.3 50.3	<50.3 50.3		
Total TPH		<50.0 50.0	<50.0 50.0	<50.3 50.3	<50.3 50.3		

BRL - Below Reporting Limit

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



Analytical Report 681884

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 15 TWR 104H

012920150

12.28.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



12.28.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **681884**

PLU 15 TWR 104H

Project Address: Eddy County, New Mexico

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 681884. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 681884 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 681884****LT Environmental, Inc., Arvada, CO**

PLU 15 TWR 104H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS13	S	12.18.2020 10:20	3 ft	681884-001
FS14	S	12.18.2020 10:23	3 ft	681884-002
FS16	S	12.18.2020 10:28	3 ft	681884-003
FS17	S	12.18.2020 10:31	3 ft	681884-004
FS18	S	12.18.2020 10:34	3 ft	681884-005
FS19	S	12.18.2020 10:36	3 ft	681884-006
FS21	S	12.18.2020 10:43	3 ft	681884-007
FS22	S	12.18.2020 10:46	3 ft	681884-008
FS25	S	12.18.2020 10:52	3 ft	681884-009
FS26	S	12.18.2020 10:54	3 ft	681884-010
FS27	S	12.18.2020 10:55	3 ft	681884-011
SW04	S	12.18.2020 11:04	0 - 3 ft	681884-012
SW06	S	12.18.2020 11:09	0 - 3 ft	681884-013
SW07	S	12.18.2020 11:05	0 - 3 ft	681884-014
SW08	S	12.18.2020 11:12	0 - 3 ft	681884-015
SW09	S	12.18.2020 11:44	0 - 3 ft	681884-016



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 15 TWR 104H

Project ID: 012920150
Work Order Number(s): 681884

Report Date: 12.28.2020
Date Received: 12.18.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS13** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681884-001 Date Collected: 12.18.2020 10:20 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 18:08 % Moisture:
 Seq Number: 3145669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	46.5	9.92	mg/kg	12.21.2020 09:46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 13:46 % Moisture:
 Seq Number: 3146065 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.23.2020 02:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.23.2020 02:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.23.2020 02:19	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.23.2020 02:19	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.23.2020 02:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.23.2020 02:19	
o-Terphenyl	84-15-1	119	%	70-135	12.23.2020 02:19	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS13**
Lab Sample Id: 681884-001

Matrix: Soil
Date Collected: 12.18.2020 10:20

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.19.2020 16:24	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.19.2020 16:24	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.19.2020 16:24	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.19.2020 16:24	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.19.2020 16:24	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.19.2020 16:24	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.19.2020 16:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.19.2020 16:24	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.19.2020 16:24	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS14** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681884-002 Date Collected: 12.18.2020 10:23 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 18:08 % Moisture:
 Seq Number: 3145669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	48.8	10.0	mg/kg	12.21.2020 10:04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 13:46 % Moisture:
 Seq Number: 3146065 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.23.2020 03:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.23.2020 03:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.23.2020 03:22	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.23.2020 03:22	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.23.2020 03:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	12.23.2020 03:22	
o-Terphenyl	84-15-1	104	%	70-135	12.23.2020 03:22	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS14**
Lab Sample Id: 681884-002

Matrix: Soil
Date Collected: 12.18.2020 10:23

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 16:46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 16:46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 16:46	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.19.2020 16:46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 16:46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 16:46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 16:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.19.2020 16:46	
4-Bromofluorobenzene	460-00-4	92	%	70-130	12.19.2020 16:46	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS16** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681884-003 Date Collected: 12.18.2020 10:28 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 18:08 % Moisture:
 Seq Number: 3145669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.8	9.94	mg/kg	12.21.2020 10:10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 13:46 % Moisture:
 Seq Number: 3146065 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.23.2020 03:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.23.2020 03:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.23.2020 03:43	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.23.2020 03:43	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.23.2020 03:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	12.23.2020 03:43	
o-Terphenyl	84-15-1	116	%	70-135	12.23.2020 03:43	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS16**
Lab Sample Id: 681884-003

Matrix: Soil
Date Collected: 12.18.2020 10:28

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.19.2020 17:09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.19.2020 17:09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.19.2020 17:09	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.19.2020 17:09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.19.2020 17:09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.19.2020 17:09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.19.2020 17:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	12.19.2020 17:09		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.19.2020 17:09		



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS17** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681884-004 Date Collected: 12.18.2020 10:31 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 18:08 % Moisture:
 Seq Number: 3145669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	36.2	9.96	mg/kg	12.21.2020 10:16		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 13:46 % Moisture:
 Seq Number: 3146065 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.23.2020 04:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.23.2020 04:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.23.2020 04:04	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.23.2020 04:04	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.23.2020 04:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.23.2020 04:04	
o-Terphenyl	84-15-1	98	%	70-135	12.23.2020 04:04	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS17**
Lab Sample Id: 681884-004

Matrix: Soil
Date Collected: 12.18.2020 10:31

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.19.2020 17:31	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.19.2020 17:31	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.19.2020 17:31	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.19.2020 17:31	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.19.2020 17:31	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.19.2020 17:31	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.19.2020 17:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.19.2020 17:31	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.19.2020 17:31	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS18** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681884-005 Date Collected: 12.18.2020 10:34 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 18:08 % Moisture:
 Seq Number: 3145669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	37.7	9.98	mg/kg	12.21.2020 10:22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 13:46 % Moisture:
 Seq Number: 3146065 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.23.2020 04:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.23.2020 04:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.23.2020 04:25	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.23.2020 04:25	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.23.2020 04:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.23.2020 04:25	
o-Terphenyl	84-15-1	102	%	70-135	12.23.2020 04:25	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS18**
Lab Sample Id: 681884-005

Matrix: Soil
Date Collected: 12.18.2020 10:34

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 17:53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 17:53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 17:53	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.19.2020 17:53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 17:53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 17:53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 17:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.19.2020 17:53	
4-Bromofluorobenzene	460-00-4	94	%	70-130	12.19.2020 17:53	



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LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS19** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681884-006 Date Collected: 12.18.2020 10:36 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 18:08 % Moisture:
 Seq Number: 3145669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.2	9.94	mg/kg	12.21.2020 10:40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 13:46 % Moisture:
 Seq Number: 3146065 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.23.2020 04:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.23.2020 04:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.23.2020 04:45	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.23.2020 04:45	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.23.2020 04:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.23.2020 04:45	
o-Terphenyl	84-15-1	100	%	70-135	12.23.2020 04:45	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS19**
Lab Sample Id: 681884-006

Matrix: Soil
Date Collected: 12.18.2020 10:36

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.19.2020 18:16	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.19.2020 18:16	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.19.2020 18:16	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.19.2020 18:16	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.19.2020 18:16	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.19.2020 18:16	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.19.2020 18:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	12.19.2020 18:16	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.19.2020 18:16	



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LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS21** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681884-007 Date Collected: 12.18.2020 10:43 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 18:08 % Moisture:
 Seq Number: 3145669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.4	9.92	mg/kg	12.21.2020 10:46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 13:46 % Moisture:
 Seq Number: 3146065 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.23.2020 05:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.23.2020 05:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.23.2020 05:06	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.23.2020 05:06	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.23.2020 05:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.23.2020 05:06	
o-Terphenyl	84-15-1	106	%	70-135	12.23.2020 05:06	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS21**
Lab Sample Id: 681884-007

Matrix: Soil
Date Collected: 12.18.2020 10:43

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.19.2020 18:38	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.19.2020 18:38	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.19.2020 18:38	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.19.2020 18:38	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.19.2020 18:38	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.19.2020 18:38	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.19.2020 18:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.19.2020 18:38	
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.19.2020 18:38	



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LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS22** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681884-008 Date Collected: 12.18.2020 10:46 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 18:08 % Moisture:
 Seq Number: 3145669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.3	9.92	mg/kg	12.21.2020 10:52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 13:46 % Moisture:
 Seq Number: 3146065 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.23.2020 05:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.23.2020 05:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.23.2020 05:26	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.23.2020 05:26	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.23.2020 05:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.23.2020 05:26	
o-Terphenyl	84-15-1	112	%	70-135	12.23.2020 05:26	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS22**
Lab Sample Id: 681884-008

Matrix: Soil
Date Collected: 12.18.2020 10:46

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 19:00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 19:00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 19:00	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.19.2020 19:00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 19:00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 19:00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 19:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.19.2020 19:00	
4-Bromofluorobenzene	460-00-4	87	%	70-130	12.19.2020 19:00	



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LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS25** Matrix: **Soil** Date Received: 12.18.2020 16:00
 Lab Sample Id: 681884-009 Date Collected: 12.18.2020 10:52 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB**
 Analyst: **MAB** Date Prep: 12.19.2020 18:08 % Moisture:
 Seq Number: 3145669 Basis: **Wet Weight**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	57.7	9.98	mg/kg	12.21.2020 10:58		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **CAC**
 Analyst: **CAC** Date Prep: 12.19.2020 13:48 % Moisture:
 Seq Number: 3146066 Basis: **Wet Weight**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.23.2020 02:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.23.2020 02:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.23.2020 02:19	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.23.2020 02:19	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.23.2020 02:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.23.2020 02:19	
o-Terphenyl	84-15-1	106	%	70-135	12.23.2020 02:19	



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LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS25**
Lab Sample Id: 681884-009

Matrix: Soil
Date Collected: 12.18.2020 10:52

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 19:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 19:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 19:23	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.19.2020 19:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 19:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 19:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 19:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	89	%	70-130	12.19.2020 19:23		
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.19.2020 19:23		



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LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS26** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681884-010 Date Collected: 12.18.2020 10:54 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 18:08 % Moisture:
 Seq Number: 3145669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	40.8	9.92	mg/kg	12.21.2020 11:04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 13:48 % Moisture:
 Seq Number: 3146066 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.23.2020 03:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.23.2020 03:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.23.2020 03:22	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.23.2020 03:22	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.23.2020 03:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.23.2020 03:22	
o-Terphenyl	84-15-1	102	%	70-135	12.23.2020 03:22	



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LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS26**
Lab Sample Id: 681884-010

Matrix: Soil
Date Collected: 12.18.2020 10:54

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 19:45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 19:45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 19:45	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.19.2020 19:45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 19:45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 19:45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 19:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	85	%	70-130	12.19.2020 19:45	
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.19.2020 19:45	



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LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS27** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681884-011 Date Collected: 12.18.2020 10:55 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 18:08 % Moisture:
 Seq Number: 3145669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	12.21.2020 11:10	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 13:48 % Moisture:
 Seq Number: 3146066 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.23.2020 03:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.23.2020 03:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.23.2020 03:43	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.23.2020 03:43	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.23.2020 03:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.23.2020 03:43	
o-Terphenyl	84-15-1	104	%	70-135	12.23.2020 03:43	



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LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS27**
Lab Sample Id: 681884-011

Matrix: Soil
Date Collected: 12.18.2020 10:55

Date Received: 12.18.2020 16:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.19.2020 21:03	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.19.2020 21:03	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.19.2020 21:03	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.19.2020 21:03	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.19.2020 21:03	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.19.2020 21:03	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.19.2020 21:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	88	%	70-130	12.19.2020 21:03		
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.19.2020 21:03		



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LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW04** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681884-012 Date Collected: 12.18.2020 11:04 Sample Depth: 0 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 18:08 % Moisture:
 Seq Number: 3145669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.0	10.0	mg/kg	12.21.2020 11:40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 13:48 % Moisture:
 Seq Number: 3146066 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.23.2020 04:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.23.2020 04:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.23.2020 04:04	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.23.2020 04:04	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.23.2020 04:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	12.23.2020 04:04	
o-Terphenyl	84-15-1	114	%	70-135	12.23.2020 04:04	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW04**
Lab Sample Id: 681884-012

Matrix: Soil
Date Collected: 12.18.2020 11:04

Date Received: 12.18.2020 16:00
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 21:25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 21:25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 21:25	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.2020 21:25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 21:25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 21:25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 21:25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	12.19.2020 21:25		
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.19.2020 21:25		



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW06** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681884-013 Date Collected: 12.18.2020 11:09 Sample Depth: 0 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 18:08 % Moisture:
 Seq Number: 3145669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.5	10.0	mg/kg	12.21.2020 11:46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 13:48 % Moisture:
 Seq Number: 3146066 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.23.2020 04:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.23.2020 04:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.23.2020 04:25	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.23.2020 04:25	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.23.2020 04:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.23.2020 04:25	
o-Terphenyl	84-15-1	110	%	70-135	12.23.2020 04:25	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW06**
Lab Sample Id: 681884-013

Matrix: Soil
Date Collected: 12.18.2020 11:09

Date Received: 12.18.2020 16:00
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 21:48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 21:48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 21:48	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.19.2020 21:48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 21:48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 21:48	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 21:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	12.19.2020 21:48	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.19.2020 21:48	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW07** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681884-014 Date Collected: 12.18.2020 11:05 Sample Depth: 0 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 18:08 % Moisture:
 Seq Number: 3145669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	40.7	10.0	mg/kg	12.21.2020 11:52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 13:48 % Moisture:
 Seq Number: 3146066 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.23.2020 04:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.23.2020 04:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.23.2020 04:45	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.23.2020 04:45	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.23.2020 04:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	12.23.2020 04:45	
o-Terphenyl	84-15-1	118	%	70-135	12.23.2020 04:45	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW07**
Lab Sample Id: 681884-014

Matrix: Soil
Date Collected: 12.18.2020 11:05

Date Received: 12.18.2020 16:00
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 22:10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 22:10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 22:10	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.2020 22:10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 22:10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 22:10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 22:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.19.2020 22:10	
4-Bromofluorobenzene	460-00-4	95	%	70-130	12.19.2020 22:10	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW08**
Lab Sample Id: 681884-015

Matrix: Soil
Date Collected: 12.18.2020 11:12

Date Received: 12.18.2020 16:00
Sample Depth: 0 - 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.19.2020 18:08

% Moisture:
Basis: Wet Weight

Seq Number: 3145669

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	150	9.98	mg/kg	12.21.2020 11:58		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.19.2020 13:48

% Moisture:
Basis: Wet Weight

Seq Number: 3146066

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.23.2020 05:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.23.2020 05:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.23.2020 05:06	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.23.2020 05:06	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.23.2020 05:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-135	12.23.2020 05:06	
o-Terphenyl	84-15-1	110	%	70-135	12.23.2020 05:06	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW08**
Lab Sample Id: 681884-015

Matrix: Soil
Date Collected: 12.18.2020 11:12

Date Received: 12.18.2020 16:00
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.19.2020 22:32	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.19.2020 22:32	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.19.2020 22:32	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.19.2020 22:32	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.19.2020 22:32	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.19.2020 22:32	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.19.2020 22:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.19.2020 22:32	
4-Bromofluorobenzene	460-00-4	88	%	70-130	12.19.2020 22:32	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW09** Matrix: Soil Date Received: 12.18.2020 16:00
 Lab Sample Id: 681884-016 Date Collected: 12.18.2020 11:44 Sample Depth: 0 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.19.2020 18:08 % Moisture:
 Seq Number: 3145669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.0	9.96	mg/kg	12.21.2020 12:04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.19.2020 13:48 % Moisture:
 Seq Number: 3146066 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.23.2020 05:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.23.2020 05:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.23.2020 05:26	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.23.2020 05:26	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.23.2020 05:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	12.23.2020 05:26	
o-Terphenyl	84-15-1	108	%	70-135	12.23.2020 05:26	



Certificate of Analytical Results 681884

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW09**
Lab Sample Id: 681884-016

Matrix: Soil
Date Collected: 12.18.2020 11:44

Date Received: 12.18.2020 16:00
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.18.2020 17:26

% Moisture:
Basis: Wet Weight

Seq Number: 3145518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.2020 22:55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.2020 22:55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.2020 22:55	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.2020 22:55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.2020 22:55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.2020 22:55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.2020 22:55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	12.19.2020 22:55		
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.19.2020 22:55		



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



LT Environmental, Inc.

PLU 15 TWR 104H

Analytical Method: Chloride by EPA 300

Seq Number: 3145669

MB Sample Id: 7717518-1-BLK

Matrix: Solid

LCS Sample Id: 7717518-1-BKS

Prep Method: E300P

Date Prep: 12.19.2020

LCSD Sample Id: 7717518-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	261	104	261	104	90-110	0	20	mg/kg	12.21.2020 09:34	

Analytical Method: Chloride by EPA 300

Seq Number: 3145669

Parent Sample Id: 681884-001

Matrix: Soil

MS Sample Id: 681884-001 S

Prep Method: E300P

Date Prep: 12.19.2020

MSD Sample Id: 681884-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	46.5	199	258	106	258	106	90-110	0	20	mg/kg	12.21.2020 09:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3145669

Parent Sample Id: 681884-011

Matrix: Soil

MS Sample Id: 681884-011 S

Prep Method: E300P

Date Prep: 12.19.2020

MSD Sample Id: 681884-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.96	199	208	105	205	103	90-110	1	20	mg/kg	12.21.2020 11:16	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146065

MB Sample Id: 7717505-1-BLK

Matrix: Solid

LCS Sample Id: 7717505-1-BKS

Prep Method: SW8015P

Date Prep: 12.19.2020

LCSD Sample Id: 7717505-1-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	1050	105	1110	111	70-135	6	35	mg/kg	12.23.2020 01:38	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1130	113	70-135	6	35	mg/kg	12.23.2020 01:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		95		116		70-135	%	12.23.2020 01:38
o-Terphenyl	127		74		108		70-135	%	12.23.2020 01:38

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146066

MB Sample Id: 7717507-1-BLK

Matrix: Solid

LCS Sample Id: 7717507-1-BKS

Prep Method: SW8015P

Date Prep: 12.19.2020

LCSD Sample Id: 7717507-1-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	1000	100	1150	115	70-135	14	35	mg/kg	12.23.2020 01:38	
Diesel Range Organics (DRO)	<50.0	1000	1020	102	1140	114	70-135	11	35	mg/kg	12.23.2020 01:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		110		97		70-135	%	12.23.2020 01:38
o-Terphenyl	115		105		101		70-135	%	12.23.2020 01:38

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



LT Environmental, Inc.
PLU 15 TWR 104H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146065

Matrix: Solid

Prep Method: SW8015P

Date Prep: 12.19.2020

MB Sample Id: 7717505-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.23.2020 01:17	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146066

Matrix: Solid

Prep Method: SW8015P

Date Prep: 12.19.2020

MB Sample Id: 7717507-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.23.2020 01:17	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146065

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.19.2020

Parent Sample Id: 681884-001

MS Sample Id: 681884-001 S

MSD Sample Id: 681884-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	1290	129	1130	113	70-135	13	35	mg/kg	12.23.2020 02:40	
Diesel Range Organics (DRO)	<50.0	999	1180	118	1190	119	70-135	1	35	mg/kg	12.23.2020 02:40	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		115		70-135	%	12.23.2020 02:40
o-Terphenyl	110		107		70-135	%	12.23.2020 02:40

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146066

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.19.2020

Parent Sample Id: 681884-009

MS Sample Id: 681884-009 S

MSD Sample Id: 681884-009 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)	<50.2	1000	1080	108	1160	116	70-135	7	35	mg/kg	12.23.2020 02:40	
Diesel Range Organics (DRO)	<50.2	1000	995	100	1100	110	70-135	10	35	mg/kg	12.23.2020 02:40	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		102		70-135	%	12.23.2020 02:40
o-Terphenyl	114		104		70-135	%	12.23.2020 02:40

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



LT Environmental, Inc.
PLU 15 TWR 104H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3145518

Matrix: Solid

Prep Method: SW5035A

Date Prep: 12.18.2020

MB Sample Id: 7717509-1-BLK

LCS Sample Id: 7717509-1-BKS

LCSD Sample Id: 7717509-1-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	0.0953	95	0.0943	94	70-130	1	35	mg/kg	12.19.2020 14:21	
Toluene	<0.00200	0.100	0.0937	94	0.0908	91	70-130	3	35	mg/kg	12.19.2020 14:21	
Ethylbenzene	<0.00200	0.100	0.0845	85	0.0833	83	71-129	1	35	mg/kg	12.19.2020 14:21	
m,p-Xylenes	<0.00400	0.200	0.172	86	0.165	83	70-135	4	35	mg/kg	12.19.2020 14:21	
o-Xylene	<0.00200	0.100	0.0868	87	0.0845	85	71-133	3	35	mg/kg	12.19.2020 14:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		97		88		70-130	%	12.19.2020 14:21
4-Bromofluorobenzene	86		85		77		70-130	%	12.19.2020 14:21

Analytical Method: BTEX by EPA 8021B

Seq Number: 3145518

Matrix: Soil

Prep Method: SW5035A

Date Prep: 12.18.2020

Parent Sample Id: 681884-001

MS Sample Id: 681884-001 S

MSD Sample Id: 681884-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.107	107	0.0917	92	70-130	15	35	mg/kg	12.19.2020 15:06	
Toluene	<0.00200	0.0998	0.102	102	0.0863	87	70-130	17	35	mg/kg	12.19.2020 15:06	
Ethylbenzene	<0.00200	0.0998	0.0924	93	0.0786	79	71-129	16	35	mg/kg	12.19.2020 15:06	
m,p-Xylenes	<0.00399	0.200	0.186	93	0.157	79	70-135	17	35	mg/kg	12.19.2020 15:06	
o-Xylene	<0.00200	0.0998	0.0936	94	0.0781	79	71-133	18	35	mg/kg	12.19.2020 15:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		94		70-130	%	12.19.2020 15:06
4-Bromofluorobenzene	87		87		70-130	%	12.19.2020 15:06

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000

Work Order No: 681884

www.xenco.com Page 1 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Litrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	lmmather@ltenv.com, dmoir@ltenv.com

Project Name:	PLU 15 TWR 104H	Turn Around	
Project Number:	C12920150	Routine	☒
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT	Temp Blank:	☒ Yes	☒ No	Wet Ice:	☒ Yes	☒ No
Temperature (°C):	20/1.8	Thermometer ID				
Received Intact:	Yes	No	Correction Factor:			
Cooler Custody Seals:	Yes	No	Total Containers:			
Sample Custody Seals:	Yes	No	14			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST										Work Order Notes
FS13	S	12/18/2020	10:20	3'	1	X	X	X											Composite
FS14	S	12/18/2020	10:23	3'	1	X	X	X											Composite
FS16	S	12/18/2020	10:28	3'	1	X	X	X											Composite
FS17	S	12/18/2020	10:31	3'	1	X	X	X											Composite
FS18	S	12/18/2020	10:34	3'	1	X	X	X											Composite
FS19	S	12/18/2020	10:36	3'	1	X	X	X											Composite
FS21	S	12/18/2020	10:43	3'	1	X	X	X											Composite
FS22	S	12/18/2020	10:46	3'	1	X	X	X											Composite
FS25	S	12/18/2020	10:52	3'	1	X	X	X											Composite
FS26	S	12/18/2020	10:54	3'	1	X	X	X											Composite

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 AI Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
 1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12-18-2016			



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 505-3334
Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 94-1296
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 445-8800 Tampa, FL (813) 233-3333
Hobbs, NM (575-392-7550)

Chain of Custody

Work Order No. 1081884

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Project Manager:		Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:		LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:		3300 North A Street	Address:	
City, State ZIP:		Midland, Tx 79705	City, State ZIP:	
Phone:		(432) 236-3849	Email:	ymathier@ltenv.com, dmoir@ltenv.com

HODUS, INM (375-392-7350) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

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 Page 6 of 6

Work Order Comments				
Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Spentfund ☐				
State of Project:				
Reporting Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐				
Deliverables: EDD ☐ ADAPT ☐ Other: ☐				

ANALYSIS REQUEST										Work Order Notes	
Project Name:		PLU 15 TWR 104H				Turn Around					
Project Number:		1712920150				Routine		F			
P.O. Number:		Eddy				Rush:					
Sampler's Name:		William Mather				Due Date:					
SAMPLE RECEIPT		Temp Blank:		Yes	No	Wet Ice:		Yes	No		
Temperature (°C):				Thermometer ID							
Received Intact:		Yes		No	See Page 1						
Cooler Custody Seals:		Yes		No	Correction Factor:						
Sample Custody Seals:		Yes		No	Total Containers:						
Number of Containers											
A 8015)											
PA 0=8021)											
p (EPA 300.0)											
TAT starts the day received by the lab, if received by 4:30pm											

[illegible]

Total	200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas	11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO2	Na	Sr	Ti	Sn	U	V	Zn
<i>Circle Method(s) and Metal(s) to be analyzed</i>			TCLP / SPLP 6010:	8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U														
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.																																		
			1631 / 245.1 / 7470	1631 / 245.1 / 7470 / 7471 : Hg																														

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		12.18.2016			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12.18.2020 04.00.00 PM

Work Order #: 681884

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#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)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 12.18.2020

Checklist reviewed by:



Jessica Kramer

Date: 12.22.2020

Certificate of Analysis Summary 682305



LT Environmental, Inc., Arvada, CO

Project Name: PLU 15 TWR 104H

Project Id: 012920150
Contact: Dan Moir
Project Location: Eddy County, New Mexico

Date Received in Lab: Tue 12.22.2020 16:00
Report Date: 12.29.2020 11:50
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	682305-001	682305-002	682305-003	682305-004		
	<i>Field Id:</i>	FS23	FS31	FS32	FS33		
	<i>Depth:</i>	4- ft	5- ft	5- ft	5- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	12.21.2020 11:27	12.21.2020 14:53	12.21.2020 14:56	12.21.2020 14:58		
BTEX by EPA 8021B	<i>Extracted:</i>	12.22.2020 17:30	12.22.2020 17:30	12.22.2020 17:30	12.22.2020 17:30		
	<i>Analyzed:</i>	12.22.2020 18:14	12.22.2020 18:36	12.22.2020 18:58	12.22.2020 19:21		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198		
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198		
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198		
m,p-Xylenes		<0.00401 0.00401	<0.00398 0.00398	<0.00399 0.00399	<0.00397 0.00397		
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198		
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198		
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198		
Chloride by EPA 300	<i>Extracted:</i>	12.28.2020 11:46	12.28.2020 11:46	12.28.2020 11:46	12.28.2020 11:46		
	<i>Analyzed:</i>	12.28.2020 12:42	12.28.2020 13:00	12.28.2020 13:06	12.28.2020 13:12		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		<9.92 9.92	18.7 10.0	20.5 10.1	13.4 9.94		
TPH by SW8015 Mod	<i>Extracted:</i>	12.28.2020 12:00	12.28.2020 12:00	12.28.2020 12:00	12.28.2020 12:00		
	<i>Analyzed:</i>	12.28.2020 14:32	12.28.2020 16:15	12.28.2020 16:35	12.28.2020 16:55		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<49.9 49.9	<49.9 49.9	<50.3 50.3		
Diesel Range Organics (DRO)		<50.2 50.2	<49.9 49.9	<49.9 49.9	<50.3 50.3		
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.9 49.9	<49.9 49.9	<50.3 50.3		
Total GRO-DRO		<50.2 50.2	<49.9 49.9	<49.9 49.9	<50.3 50.3		
Total TPH		<50.2 50.2	<49.9 49.9	<49.9 49.9	<50.3 50.3		

BRL - Below Reporting Limit

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



Analytical Report 682305

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 15 TWR 104H

012920150

12.29.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



12.29.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **682305**

PLU 15 TWR 104H

Project Address: Eddy County, New Mexico

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 682305. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 682305 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 682305

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS23	S	12.21.2020 11:27	4 ft	682305-001
FS31	S	12.21.2020 14:53	5 ft	682305-002
FS32	S	12.21.2020 14:56	5 ft	682305-003
FS33	S	12.21.2020 14:58	5 ft	682305-004



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 15 TWR 104H

Project ID: 012920150
Work Order Number(s): 682305

Report Date: 12.29.2020
Date Received: 12.22.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 682305

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS23**
Lab Sample Id: 682305-001

Matrix: Soil
Date Collected: 12.21.2020 11:27

Date Received: 12.22.2020 16:00
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.28.2020 11:46

% Moisture:
Basis: Wet Weight

Seq Number: 3146198

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	12.28.2020 12:42	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.28.2020 12:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.28.2020 14:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.28.2020 14:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.28.2020 14:32	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.28.2020 14:32	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.28.2020 14:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.28.2020 14:32	
o-Terphenyl	84-15-1	122	%	70-135	12.28.2020 14:32	



Certificate of Analytical Results 682305

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS23**
Lab Sample Id: 682305-001

Matrix: Soil
Date Collected: 12.21.2020 11:27

Date Received: 12.22.2020 16:00
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.22.2020 17:30

% Moisture:
Basis: Wet Weight

Seq Number: 3146051

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.22.2020 18:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.22.2020 18:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.22.2020 18:14	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.22.2020 18:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.22.2020 18:14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.22.2020 18:14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.22.2020 18:14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	12.22.2020 18:14		
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.22.2020 18:14		



Certificate of Analytical Results 682305

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS31** Matrix: Soil Date Received: 12.22.2020 16:00
 Lab Sample Id: 682305-002 Date Collected: 12.21.2020 14:53 Sample Depth: 5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.28.2020 11:46 % Moisture:
 Seq Number: 3146198 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.7	10.0	mg/kg	12.28.2020 13:00		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.28.2020 12:00 % Moisture:
 Seq Number: 3146194 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.28.2020 16:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.28.2020 16:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.28.2020 16:15	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.28.2020 16:15	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.28.2020 16:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.28.2020 16:15	
o-Terphenyl	84-15-1	106	%	70-135	12.28.2020 16:15	



Certificate of Analytical Results 682305

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS31**
Lab Sample Id: 682305-002

Matrix: Soil
Date Collected: 12.21.2020 14:53

Date Received: 12.22.2020 16:00
Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.22.2020 17:30

% Moisture:
Basis: Wet Weight

Seq Number: 3146051

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.22.2020 18:36	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.22.2020 18:36	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.22.2020 18:36	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.22.2020 18:36	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.22.2020 18:36	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.22.2020 18:36	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.22.2020 18:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	12.22.2020 18:36	
4-Bromofluorobenzene	460-00-4	122	%	70-130	12.22.2020 18:36	



Certificate of Analytical Results 682305

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS32** Matrix: Soil Date Received: 12.22.2020 16:00
 Lab Sample Id: 682305-003 Date Collected: 12.21.2020 14:56 Sample Depth: 5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.28.2020 11:46 % Moisture:
 Seq Number: 3146198 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.5	10.1	mg/kg	12.28.2020 13:06		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.28.2020 12:00 % Moisture:
 Seq Number: 3146194 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.28.2020 16:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.28.2020 16:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.28.2020 16:35	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.28.2020 16:35	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.28.2020 16:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	12.28.2020 16:35	
o-Terphenyl	84-15-1	110	%	70-135	12.28.2020 16:35	



Certificate of Analytical Results 682305

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS32**
Lab Sample Id: 682305-003

Matrix: Soil
Date Collected: 12.21.2020 14:56

Date Received: 12.22.2020 16:00
Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.22.2020 17:30

% Moisture:
Basis: Wet Weight

Seq Number: 3146051

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.22.2020 18:58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.22.2020 18:58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.22.2020 18:58	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.22.2020 18:58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.22.2020 18:58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.22.2020 18:58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.22.2020 18:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.22.2020 18:58		
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.22.2020 18:58		



Certificate of Analytical Results 682305

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS33** Matrix: Soil Date Received: 12.22.2020 16:00
 Lab Sample Id: 682305-004 Date Collected: 12.21.2020 14:58 Sample Depth: 5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 12.28.2020 11:46 % Moisture:
 Seq Number: 3146198 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.4	9.94	mg/kg	12.28.2020 13:12		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: CAC
 Analyst: CAC Date Prep: 12.28.2020 12:00 % Moisture:
 Seq Number: 3146194 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.28.2020 16:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.28.2020 16:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.28.2020 16:55	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.28.2020 16:55	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.28.2020 16:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.28.2020 16:55	
o-Terphenyl	84-15-1	104	%	70-135	12.28.2020 16:55	



Certificate of Analytical Results 682305

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS33**
Lab Sample Id: 682305-004

Matrix: Soil
Date Collected: 12.21.2020 14:58

Date Received: 12.22.2020 16:00
Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.22.2020 17:30

% Moisture:
Basis: Wet Weight

Seq Number: 3146051

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.22.2020 19:21	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.22.2020 19:21	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.22.2020 19:21	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.22.2020 19:21	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.22.2020 19:21	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.22.2020 19:21	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.22.2020 19:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.22.2020 19:21	
4-Bromofluorobenzene	460-00-4	118	%	70-130	12.22.2020 19:21	

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



LT Environmental, Inc.

PLU 15 TWR 104H

Analytical Method: Chloride by EPA 300

Seq Number: 3146198

MB Sample Id: 7717954-1-BLK

Matrix: Solid

LCS Sample Id: 7717954-1-BKS

Prep Method: E300P

Date Prep: 12.28.2020

LCSD Sample Id: 7717954-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	260	104	260	104	90-110	0	20	mg/kg	12.28.2020 12:30	

Analytical Method: Chloride by EPA 300

Seq Number: 3146198

Parent Sample Id: 682305-001

Matrix: Soil

MS Sample Id: 682305-001 S

Prep Method: E300P

Date Prep: 12.28.2020

MSD Sample Id: 682305-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.98	200	206	103	206	104	90-110	0	20	mg/kg	12.28.2020 12:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3146198

Parent Sample Id: 682314-001

Matrix: Soil

MS Sample Id: 682314-001 S

Prep Method: E300P

Date Prep: 12.28.2020

MSD Sample Id: 682314-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	393	200	611	109	613	110	90-110	0	20	mg/kg	12.28.2020 14:12	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146194

MB Sample Id: 7717990-1-BLK

Matrix: Solid

LCS Sample Id: 7717990-1-BKS

Prep Method: SW8015P

Date Prep: 12.28.2020

LCSD Sample Id: 7717990-1-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	998	100	1080	108	70-135	8	35	mg/kg	12.28.2020 13:52	
Diesel Range Organics (DRO)	<50.0	1000	937	94	1060	106	70-135	12	35	mg/kg	12.28.2020 13:52	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		103		101		70-135	%	12.28.2020 13:52
o-Terphenyl	107		102		99		70-135	%	12.28.2020 13:52

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146194

Matrix: Solid

MB Sample Id: 7717990-1-BLK

Prep Method: SW8015P

Date Prep: 12.28.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.28.2020 13:32	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



LT Environmental, Inc.
PLU 15 TWR 104H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146194

Parent Sample Id: 682305-001

Matrix: Soil

MS Sample Id: 682305-001 S

Prep Method: SW8015P

Date Prep: 12.28.2020

MSD Sample Id: 682305-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	1120	112	980	98	70-135	13	35	mg/kg	12.28.2020 14:55	
Diesel Range Organics (DRO)	<49.9	998	1000	100	1130	113	70-135	12	35	mg/kg	12.28.2020 14:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		102		70-135	%	12.28.2020 14:55
o-Terphenyl	106		116		70-135	%	12.28.2020 14:55

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146051

MB Sample Id: 7717927-1-BLK

Matrix: Solid

LCS Sample Id: 7717927-1-BKS

Prep Method: SW5035A

Date Prep: 12.22.2020

LCSD Sample Id: 7717927-1-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	0.0990	99	0.104	104	70-130	5	35	mg/kg	12.22.2020 15:42	
Toluene	<0.00200	0.100	0.0946	95	0.0977	98	70-130	3	35	mg/kg	12.22.2020 15:42	
Ethylbenzene	<0.00200	0.100	0.0997	100	0.104	104	71-129	4	35	mg/kg	12.22.2020 15:42	
m,p-Xylenes	<0.00400	0.200	0.204	102	0.212	106	70-135	4	35	mg/kg	12.22.2020 15:42	
o-Xylene	<0.00200	0.100	0.102	102	0.103	103	71-133	1	35	mg/kg	12.22.2020 15:42	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		99		103		70-130	%	12.22.2020 15:42
4-Bromofluorobenzene	118		105		112		70-130	%	12.22.2020 15:42

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146051

Parent Sample Id: 682137-006

Matrix: Soil

MS Sample Id: 682137-006 S

Prep Method: SW5035A

Date Prep: 12.22.2020

MSD Sample Id: 682137-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.115	115	0.116	116	70-130	1	35	mg/kg	12.22.2020 16:26	
Toluene	<0.00201	0.100	0.109	109	0.109	109	70-130	0	35	mg/kg	12.22.2020 16:26	
Ethylbenzene	<0.00201	0.100	0.113	113	0.114	114	71-129	1	35	mg/kg	12.22.2020 16:26	
m,p-Xylenes	<0.00402	0.201	0.231	115	0.232	116	70-135	0	35	mg/kg	12.22.2020 16:26	
o-Xylene	<0.00201	0.100	0.113	113	0.113	113	71-133	0	35	mg/kg	12.22.2020 16:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		70-130	%	12.22.2020 16:26
4-Bromofluorobenzene	110		112		70-130	%	12.22.2020 16:26

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Chain of Custody

Work Order No: 1682305

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littlell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	wmather@ltenv.com, dmoir@ltenv.com
Project Name:	PLU 15 TWR 104H	Turn Around	
Project Number:	012920150	Routine	☒
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT	Temp Blank:	☒ Yes	☒ No	Weight:	☒ Yes	☒ No
	Temperature (°C):	12/1.0	Thermometer ID			
	Received Intact:	☒ Yes	☒ No	Correction Factor: -0.2		
	Cooler Custody Seals:	Yes	No	Total Containers: 4		
	Sample Custody Seals:	Yes	No			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST										Work Order Notes
FS23	S	12/21/2020	11:27	4'	1	X	X	X											Composite
FS31	S	12/21/2020	14:53	5'	1	X	X	X											Composite
FS32	S	12/21/2020	14:56	5'	1	X	X	X											Composite
FS33	S	12/21/2020	14:58	5'	1	X	X	X											Composite

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12/21/20 15:49	<i>[Signature]</i>	<i>[Signature]</i>	12-22-1600

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12.22.2020 04.00.00 PM

Work Order #: 682305

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : t_nm_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#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)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 12.22.2020

Checklist reviewed by:



Jessica Kramer

Date: 12.23.2020

Certificate of Analysis Summary 682353



LT Environmental, Inc., Arvada, CO

Project Name: PLU 15 TWR 104H

Project Id: 012920150
Contact: Dan Moir
Project Location: Eddy County, New Mexico

Date Received in Lab: Tue 12.22.2020 16:45
Report Date: 12.30.2020 14:49
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	682353-001	682353-002	682353-003	682353-004	682353-005	682353-006
	<i>Field Id:</i>	FS24	FS34	FS35	FS36	FS37	FS38
	<i>Depth:</i>	4- ft	3- ft	3- ft	3- ft	3- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.22.2020 09:47	12.22.2020 10:03	12.22.2020 10:06	12.22.2020 10:09	12.22.2020 10:13	12.22.2020 10:16
BTEX by EPA 8021B SUB: T104704400-20-21	<i>Extracted:</i>	12.23.2020 15:30	12.23.2020 15:30	12.23.2020 15:30	12.23.2020 15:30	12.23.2020 15:30	12.23.2020 15:30
	<i>Analyzed:</i>	12.24.2020 01:29	12.24.2020 01:50	12.24.2020 02:10	12.24.2020 02:31	12.24.2020 03:52	12.24.2020 04:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
m,p-Xylenes		<0.00401 0.00401	<0.00396 0.00396	<0.00400 0.00400	<0.00399 0.00399	<0.00402 0.00402	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	12.23.2020 17:10	12.23.2020 17:10	12.23.2020 17:10	12.23.2020 17:10	12.23.2020 17:10	12.23.2020 17:10
	<i>Analyzed:</i>	12.23.2020 23:46	12.23.2020 23:51	12.23.2020 23:56	12.24.2020 00:12	12.24.2020 00:17	12.24.2020 00:23
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		86.6 4.97	9.04 5.00	6.69 4.99	17.9 5.00	17.0 5.02	9.74 5.05
TPH by SW8015 Mod SUB: T104704400-20-21	<i>Extracted:</i>	12.28.2020 10:00	12.28.2020 10:00	12.28.2020 10:00	12.28.2020 10:00	12.28.2020 10:00	12.28.2020 10:00
	<i>Analyzed:</i>	12.28.2020 15:19	12.28.2020 16:26	12.28.2020 16:48	12.28.2020 17:11	12.28.2020 17:33	12.28.2020 17:56
	<i>Units/RL:</i>	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	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Total GRO-DRO		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Total TPH		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 682353



LT Environmental, Inc., Arvada, CO

Project Name: PLU 15 TWR 104H

Project Id: 012920150
Contact: Dan Moir
Project Location: Eddy County, New Mexico

Date Received in Lab: Tue 12.22.2020 16:45
Report Date: 12.30.2020 14:49
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	682353-007	682353-008	682353-009	682353-010	682353-011	682353-012
	<i>Field Id:</i>	FS39	FS40	FS41	FS42	FS43	FS44
	<i>Depth:</i>	6- ft	6- ft	6- ft	6- ft	6- ft	6- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.22.2020 12:46	12.22.2020 12:49	12.22.2020 12:53	12.22.2020 12:54	12.22.2020 12:48	12.22.2020 12:50
BTEX by EPA 8021B SUB: T104704400-20-21	<i>Extracted:</i>	12.23.2020 15:30	12.23.2020 15:30	12.23.2020 15:30	12.23.2020 15:30	12.23.2020 15:30	12.23.2020 15:30
	<i>Analyzed:</i>	12.24.2020 04:33	12.24.2020 04:53	12.24.2020 05:14	12.24.2020 05:34	12.24.2020 05:54	12.24.2020 06:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00398 0.00398	<0.00402 0.00402	<0.00399 0.00399	<0.00396 0.00396
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Total BTEX		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	12.23.2020 17:50	12.23.2020 17:50	12.23.2020 17:50	12.23.2020 17:50	12.23.2020 17:50	12.23.2020 17:50
	<i>Analyzed:</i>	12.24.2020 11:24	12.24.2020 11:29	12.24.2020 11:35	12.24.2020 11:40	12.24.2020 11:45	12.24.2020 11:50
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<4.98 4.98	<5.01 5.01	<5.04 5.04	<4.97 4.97	31.3 4.97	11.4 5.02
TPH by SW8015 Mod SUB: T104704400-20-21	<i>Extracted:</i>	12.28.2020 10:00	12.28.2020 10:00	12.28.2020 10:00	12.28.2020 10:00	12.28.2020 10:00	12.28.2020 10:00
	<i>Analyzed:</i>	12.28.2020 18:18	12.28.2020 18:41	12.28.2020 19:04	12.28.2020 19:27	12.28.2020 20:12	12.28.2020 20:35
	<i>Units/RL:</i>	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	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Total GRO-DRO		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Total TPH		<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9

BRL - Below Reporting Limit

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Certificate of Analysis Summary 682353



LT Environmental, Inc., Arvada, CO

Project Name: PLU 15 TWR 104H

Project Id: 012920150
Contact: Dan Moir
Project Location: Eddy County, New Mexico

Date Received in Lab: Tue 12.22.2020 16:45
Report Date: 12.30.2020 14:49
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	682353-013	682353-014	682353-015	682353-016	682353-017	682353-018
	<i>Field Id:</i>	FS45	FS46	FS47	FS48	FS50	FS51
	<i>Depth:</i>	6- ft	6- ft	6- ft	6- ft	6- ft	6- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.22.2020 12:52	12.22.2020 12:57	12.22.2020 13:00	12.22.2020 13:03	12.22.2020 13:11	12.22.2020 13:12
BTEX by EPA 8021B SUB: T104704400-20-21	<i>Extracted:</i>	12.23.2020 15:30	12.23.2020 15:30	12.23.2020 16:00	12.23.2020 16:00	12.23.2020 16:00	12.23.2020 16:00
	<i>Analyzed:</i>	12.24.2020 06:35	12.24.2020 06:56	12.24.2020 04:22	12.24.2020 04:42	12.24.2020 05:02	12.24.2020 05:23
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes		<0.00400 0.00400	<0.00396 0.00396	<0.00402 0.00402	<0.00402 0.00402	<0.00398 0.00398	<0.00400 0.00400
o-Xylene		<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200
Chloride by EPA 300 SUB: T104704400-20-21	<i>Extracted:</i>	12.23.2020 17:50	12.23.2020 17:59	12.23.2020 17:59	12.23.2020 17:59	12.23.2020 17:59	12.23.2020 17:59
	<i>Analyzed:</i>	12.24.2020 11:55	12.24.2020 12:27	12.24.2020 12:42	12.24.2020 12:47	12.24.2020 12:53	12.24.2020 12:58
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		23.4 5.05	20.3 5.03	17.2 4.98	9.84 4.99	35.5 4.97	22.9 4.97
TPH by SW8015 Mod SUB: T104704400-20-21	<i>Extracted:</i>	12.28.2020 10:00	12.28.2020 10:00	12.28.2020 10:00	12.28.2020 10:00	12.28.2020 10:00	12.28.2020 10:00
	<i>Analyzed:</i>	12.28.2020 20:58	12.28.2020 21:21	12.28.2020 21:44	12.28.2020 22:06	12.28.2020 22:28	12.28.2020 22:51
	<i>Units/RL:</i>	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	<49.9 49.9	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Total GRO-DRO		<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Total TPH		<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 682353



LT Environmental, Inc., Arvada, CO

Project Name: PLU 15 TWR 104H

Project Id: 012920150
Contact: Dan Moir
Project Location: Eddy County, New Mexico

Date Received in Lab: Tue 12.22.2020 16:45
Report Date: 12.30.2020 14:49
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	682353-019	682353-020	682353-021	682353-022		
	Field Id:	FS53	SW10	SW11	SW12		
	Depth:	6- ft	0-5 ft	0-3 ft	0-3 ft		
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	12.22.2020 13:15	12.22.2020 11:32	12.22.2020 11:24	12.22.2020 11:28		
BTEX by EPA 8021B SUB: T104704400-20-21	Extracted:	12.23.2020 16:00	12.23.2020 16:00	12.23.2020 16:00	12.23.2020 16:00		
	Analyzed:	12.24.2020 05:43	12.24.2020 06:04	12.24.2020 06:24	12.24.2020 06:44		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198		
Toluene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198		
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198		
m,p-Xylenes		<0.00399 0.00399	<0.00403 0.00403	<0.00399 0.00399	<0.00396 0.00396		
o-Xylene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198		
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198		
Total BTEX		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198		
Chloride by EPA 300 SUB: T104704400-20-21	Extracted:	12.23.2020 17:59	12.23.2020 17:59	12.23.2020 17:59	12.23.2020 17:59		
	Analyzed:	12.24.2020 13:13	12.24.2020 13:18	12.24.2020 13:24	12.24.2020 13:29		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		67.2 4.97	<4.97 4.97	188 4.99	48.8 5.02		
TPH by SW8015 Mod SUB: T104704400-20-21	Extracted:	12.28.2020 10:00	12.28.2020 10:00	12.28.2020 16:00	12.28.2020 16:00		
	Analyzed:	12.28.2020 23:13	12.28.2020 23:35	12.29.2020 01:23	12.29.2020 02:29		
	Units/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		
Diesel Range Organics (DRO)		<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0		
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0		
Total GRO-DRO		<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0		
Total TPH		<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0		

BRL - Below Reporting Limit

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Analytical Report 682353

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 15 TWR 104H

012920150

12.30.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



12.30.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **682353**

PLU 15 TWR 104H

Project Address: Eddy County, New Mexico

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 682353. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 682353 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS24	S	12.22.2020 09:47	4 ft	682353-001
FS34	S	12.22.2020 10:03	3 ft	682353-002
FS35	S	12.22.2020 10:06	3 ft	682353-003
FS36	S	12.22.2020 10:09	3 ft	682353-004
FS37	S	12.22.2020 10:13	3 ft	682353-005
FS38	S	12.22.2020 10:16	3 ft	682353-006
FS39	S	12.22.2020 12:46	6 ft	682353-007
FS40	S	12.22.2020 12:49	6 ft	682353-008
FS41	S	12.22.2020 12:53	6 ft	682353-009
FS42	S	12.22.2020 12:54	6 ft	682353-010
FS43	S	12.22.2020 12:48	6 ft	682353-011
FS44	S	12.22.2020 12:50	6 ft	682353-012
FS45	S	12.22.2020 12:52	6 ft	682353-013
FS46	S	12.22.2020 12:57	6 ft	682353-014
FS47	S	12.22.2020 13:00	6 ft	682353-015
FS48	S	12.22.2020 13:03	6 ft	682353-016
FS50	S	12.22.2020 13:11	6 ft	682353-017
FS51	S	12.22.2020 13:12	6 ft	682353-018
FS53	S	12.22.2020 13:15	6 ft	682353-019
SW10	S	12.22.2020 11:32	0 - 5 ft	682353-020
SW11	S	12.22.2020 11:24	0 - 3 ft	682353-021
SW12	S	12.22.2020 11:28	0 - 3 ft	682353-022

**CASE NARRATIVE****Client Name: LT Environmental, Inc.****Project Name: PLU 15 TWR 104H**Project ID: 012920150
Work Order Number(s): 682353Report Date: 12.30.2020
Date Received: 12.22.2020**Sample receipt non conformances and comments:****Sample receipt non conformances and comments per sample:**

None

Analytical non conformances and comments:

Batch: LBA-3146247 TPH by SW8015 Mod

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

Samples affected are: 682353-021 S, 682353-021 SD.

Surrogate 1-Chlorooctane recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7718035-1-BSD, 682353-021 S, 682353-021 SD.

Lab Sample ID 682353-021 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Gasoline Range Hydrocarbons (GRO) recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 682353-021, -022.

The Laboratory Control Sample for Gasoline Range Hydrocarbons (GRO) is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3146251 TPH by SW8015 Mod

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

Samples affected are: 682353-020.

Lab Sample ID 682353-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Gasoline Range Hydrocarbons (GRO) recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 682353-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020.

The Laboratory Control Sample for Gasoline Range Hydrocarbons (GRO) is within laboratory Control Limits, therefore the data was accepted.

Gasoline Range Hydrocarbons (GRO) Relative Percent Difference (RPD) between matrix spike and duplicate was above quality control limits.

Samples in the analytical batch are: 682353-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS24**
Lab Sample Id: 682353-001

Matrix: Soil
Date Collected: 12.22.2020 09:47

Date Received: 12.22.2020 16:45
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.23.2020 17:10

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145947

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	86.6	4.97	mg/kg	12.23.2020 23:46		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.28.2020 15:19	UFX	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.28.2020 15:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.28.2020 15:19	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.28.2020 15:19	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.28.2020 15:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-130	12.28.2020 15:19	
o-Terphenyl	84-15-1	126	%	70-130	12.28.2020 15:19	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS24**
Lab Sample Id: 682353-001

Matrix: Soil
Date Collected: 12.22.2020 09:47

Date Received: 12.22.2020 16:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 15:30

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145936

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.24.2020 01:29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.24.2020 01:29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.24.2020 01:29	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.24.2020 01:29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.24.2020 01:29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.24.2020 01:29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.24.2020 01:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	127	%	70-130	12.24.2020 01:29	
1,4-Difluorobenzene	540-36-3	93	%	70-130	12.24.2020 01:29	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS34**
Lab Sample Id: 682353-002

Matrix: Soil
Date Collected: 12.22.2020 10:03

Date Received: 12.22.2020 16:45
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.23.2020 17:10

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145947

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.04	5.00	mg/kg	12.23.2020 23:51		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.28.2020 16:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.28.2020 16:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.28.2020 16:26	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.28.2020 16:26	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.28.2020 16:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	12.28.2020 16:26	
o-Terphenyl	84-15-1	101	%	70-130	12.28.2020 16:26	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS34**
Lab Sample Id: 682353-002

Matrix: Soil
Date Collected: 12.22.2020 10:03

Date Received: 12.22.2020 16:45
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 15:30

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145936

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.24.2020 01:50	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.24.2020 01:50	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.24.2020 01:50	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.24.2020 01:50	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.24.2020 01:50	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.24.2020 01:50	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.24.2020 01:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.24.2020 01:50	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.24.2020 01:50	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: FS35
Lab Sample Id: 682353-003

Matrix: Soil
Date Collected: 12.22.2020 10:06

Date Received: 12.22.2020 16:45
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.23.2020 17:10

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145947

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6.69	4.99	mg/kg	12.23.2020 23:56		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.28.2020 16:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.28.2020 16:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.28.2020 16:48	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.28.2020 16:48	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.28.2020 16:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	12.28.2020 16:48	
o-Terphenyl	84-15-1	109	%	70-130	12.28.2020 16:48	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: FS35
Lab Sample Id: 682353-003

Matrix: Soil
Date Collected: 12.22.2020 10:06

Date Received: 12.22.2020 16:45
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 15:30

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145936

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.24.2020 02:10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.24.2020 02:10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.24.2020 02:10	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.24.2020 02:10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.24.2020 02:10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.24.2020 02:10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.24.2020 02:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.24.2020 02:10		
1,4-Difluorobenzene	540-36-3	95	%	70-130	12.24.2020 02:10		



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS36**
Lab Sample Id: 682353-004

Matrix: Soil
Date Collected: 12.22.2020 10:09

Date Received: 12.22.2020 16:45
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.23.2020 17:10

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145947

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.9	5.00	mg/kg	12.24.2020 00:12		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.28.2020 17:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.28.2020 17:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.28.2020 17:11	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.28.2020 17:11	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.28.2020 17:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	12.28.2020 17:11	
o-Terphenyl	84-15-1	98	%	70-130	12.28.2020 17:11	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS36**
Lab Sample Id: 682353-004

Matrix: Soil
Date Collected: 12.22.2020 10:09

Date Received: 12.22.2020 16:45
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 15:30

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145936

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.24.2020 02:31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.24.2020 02:31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.24.2020 02:31	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.24.2020 02:31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.24.2020 02:31	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.24.2020 02:31	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.24.2020 02:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.24.2020 02:31	
1,4-Difluorobenzene	540-36-3	92	%	70-130	12.24.2020 02:31	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: FS37
Lab Sample Id: 682353-005

Matrix: Soil
Date Collected: 12.22.2020 10:13

Date Received: 12.22.2020 16:45
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.23.2020 17:10

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145947

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.0	5.02	mg/kg	12.24.2020 00:17		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.28.2020 17:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.28.2020 17:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.28.2020 17:33	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.28.2020 17:33	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.28.2020 17:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	12.28.2020 17:33	
o-Terphenyl	84-15-1	108	%	70-130	12.28.2020 17:33	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS37**
Lab Sample Id: 682353-005

Matrix: Soil
Date Collected: 12.22.2020 10:13

Date Received: 12.22.2020 16:45
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 15:30

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145936

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.24.2020 03:52	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.24.2020 03:52	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.24.2020 03:52	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.24.2020 03:52	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.24.2020 03:52	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.24.2020 03:52	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.24.2020 03:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.24.2020 03:52	
1,4-Difluorobenzene	540-36-3	92	%	70-130	12.24.2020 03:52	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS38**
Lab Sample Id: 682353-006

Matrix: Soil
Date Collected: 12.22.2020 10:16

Date Received: 12.22.2020 16:45
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: CHE

Date Prep: 12.23.2020 17:10

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145947

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.74	5.05	mg/kg	12.24.2020 00:23		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.28.2020 17:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.28.2020 17:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.28.2020 17:56	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.28.2020 17:56	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.28.2020 17:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	12.28.2020 17:56	
o-Terphenyl	84-15-1	109	%	70-130	12.28.2020 17:56	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS38**
Lab Sample Id: 682353-006

Matrix: Soil
Date Collected: 12.22.2020 10:16

Date Received: 12.22.2020 16:45
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 15:30

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145936

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.24.2020 04:12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.24.2020 04:12	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.24.2020 04:12	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.24.2020 04:12	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.24.2020 04:12	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.24.2020 04:12	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.24.2020 04:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.24.2020 04:12	
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.24.2020 04:12	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS39**
Lab Sample Id: 682353-007

Matrix: Soil
Date Collected: 12.22.2020 12:46

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:50

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146072

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	12.24.2020 11:24	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.28.2020 18:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.28.2020 18:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.28.2020 18:18	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.28.2020 18:18	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.28.2020 18:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	12.28.2020 18:18	
o-Terphenyl	84-15-1	121	%	70-130	12.28.2020 18:18	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS39**
Lab Sample Id: 682353-007

Matrix: Soil
Date Collected: 12.22.2020 12:46

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 15:30

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145936

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.24.2020 04:33	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.24.2020 04:33	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.24.2020 04:33	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.24.2020 04:33	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.24.2020 04:33	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.24.2020 04:33	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.24.2020 04:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	12.24.2020 04:33		
1,4-Difluorobenzene	540-36-3	88	%	70-130	12.24.2020 04:33		



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS40**
Lab Sample Id: 682353-008

Matrix: Soil
Date Collected: 12.22.2020 12:49

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:50

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146072

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.01	5.01	mg/kg	12.24.2020 11:29	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.28.2020 18:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.28.2020 18:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.28.2020 18:41	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.28.2020 18:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.28.2020 18:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-130	12.28.2020 18:41	
o-Terphenyl	84-15-1	117	%	70-130	12.28.2020 18:41	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS40**
Lab Sample Id: 682353-008

Matrix: Soil
Date Collected: 12.22.2020 12:49

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 15:30

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145936

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.24.2020 04:53	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.24.2020 04:53	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.24.2020 04:53	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.24.2020 04:53	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.24.2020 04:53	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.24.2020 04:53	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.24.2020 04:53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.24.2020 04:53		
1,4-Difluorobenzene	540-36-3	95	%	70-130	12.24.2020 04:53		



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS41**
Lab Sample Id: 682353-009

Matrix: Soil
Date Collected: 12.22.2020 12:53

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:50

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146072

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.04	5.04	mg/kg	12.24.2020 11:35	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.28.2020 19:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.28.2020 19:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.28.2020 19:04	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.28.2020 19:04	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.28.2020 19:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	12.28.2020 19:04	
o-Terphenyl	84-15-1	111	%	70-130	12.28.2020 19:04	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS41**
Lab Sample Id: 682353-009

Matrix: Soil
Date Collected: 12.22.2020 12:53

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 15:30

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145936

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.24.2020 05:14	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.24.2020 05:14	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.24.2020 05:14	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.24.2020 05:14	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.24.2020 05:14	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.24.2020 05:14	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.24.2020 05:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	86	%	70-130	12.24.2020 05:14	
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.24.2020 05:14	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS42**
Lab Sample Id: 682353-010

Matrix: Soil
Date Collected: 12.22.2020 12:54

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:50

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146072

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	12.24.2020 11:40	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.28.2020 19:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.28.2020 19:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.28.2020 19:27	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.28.2020 19:27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.28.2020 19:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	12.28.2020 19:27	
o-Terphenyl	84-15-1	121	%	70-130	12.28.2020 19:27	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS42**
Lab Sample Id: 682353-010

Matrix: Soil
Date Collected: 12.22.2020 12:54

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 15:30

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145936

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.24.2020 05:34	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.24.2020 05:34	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.24.2020 05:34	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.24.2020 05:34	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.24.2020 05:34	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.24.2020 05:34	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.24.2020 05:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.24.2020 05:34	
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.24.2020 05:34	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS43**
Lab Sample Id: 682353-011

Matrix: Soil
Date Collected: 12.22.2020 12:48

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:50

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146072

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.3	4.97	mg/kg	12.24.2020 11:45		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.28.2020 20:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.28.2020 20:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.28.2020 20:12	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.28.2020 20:12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.28.2020 20:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	12.28.2020 20:12	
o-Terphenyl	84-15-1	121	%	70-130	12.28.2020 20:12	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS43**
Lab Sample Id: 682353-011

Matrix: Soil
Date Collected: 12.22.2020 12:48

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 15:30

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145936

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.24.2020 05:54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.24.2020 05:54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.24.2020 05:54	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.24.2020 05:54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.24.2020 05:54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.24.2020 05:54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.24.2020 05:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.24.2020 05:54	
1,4-Difluorobenzene	540-36-3	93	%	70-130	12.24.2020 05:54	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS44**
Lab Sample Id: 682353-012

Matrix: Soil
Date Collected: 12.22.2020 12:50

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:50

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146072

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.4	5.02	mg/kg	12.24.2020 11:50		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.28.2020 20:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.28.2020 20:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.28.2020 20:35	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.28.2020 20:35	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.28.2020 20:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	12.28.2020 20:35	
o-Terphenyl	84-15-1	114	%	70-130	12.28.2020 20:35	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS44**
Lab Sample Id: 682353-012

Matrix: Soil
Date Collected: 12.22.2020 12:50

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 15:30

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145936

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.24.2020 06:15	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.24.2020 06:15	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.24.2020 06:15	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.24.2020 06:15	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.24.2020 06:15	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.24.2020 06:15	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.24.2020 06:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	12.24.2020 06:15	
1,4-Difluorobenzene	540-36-3	94	%	70-130	12.24.2020 06:15	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS45**
Lab Sample Id: 682353-013

Matrix: Soil
Date Collected: 12.22.2020 12:52

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:50

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146072

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.4	5.05	mg/kg	12.24.2020 11:55		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.28.2020 20:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.28.2020 20:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.28.2020 20:58	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.28.2020 20:58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.28.2020 20:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-130	12.28.2020 20:58	
o-Terphenyl	84-15-1	110	%	70-130	12.28.2020 20:58	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS45**
Lab Sample Id: 682353-013

Matrix: Soil
Date Collected: 12.22.2020 12:52

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 15:30

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145936

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.24.2020 06:35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.24.2020 06:35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.24.2020 06:35	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.24.2020 06:35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.24.2020 06:35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.24.2020 06:35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.24.2020 06:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.24.2020 06:35	
1,4-Difluorobenzene	540-36-3	92	%	70-130	12.24.2020 06:35	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS46**
Lab Sample Id: 682353-014

Matrix: Soil
Date Collected: 12.22.2020 12:57

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:59

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146073

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.3	5.03	mg/kg	12.24.2020 12:27		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.28.2020 21:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.28.2020 21:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.28.2020 21:21	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.28.2020 21:21	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.28.2020 21:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	12.28.2020 21:21	
o-Terphenyl	84-15-1	105	%	70-130	12.28.2020 21:21	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS46**
Lab Sample Id: 682353-014

Matrix: Soil
Date Collected: 12.22.2020 12:57

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 15:30

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145936

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.24.2020 06:56	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.24.2020 06:56	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.24.2020 06:56	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.24.2020 06:56	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.24.2020 06:56	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.24.2020 06:56	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.24.2020 06:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.24.2020 06:56	
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.24.2020 06:56	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS47**
Lab Sample Id: 682353-015

Matrix: Soil
Date Collected: 12.22.2020 13:00

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:59

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146073

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.2	4.98	mg/kg	12.24.2020 12:42		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.28.2020 21:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.28.2020 21:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.28.2020 21:44	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.28.2020 21:44	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.28.2020 21:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	12.28.2020 21:44	
o-Terphenyl	84-15-1	115	%	70-130	12.28.2020 21:44	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS47**
Lab Sample Id: 682353-015

Matrix: Soil
Date Collected: 12.22.2020 13:00

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 16:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145939

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.24.2020 04:22	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.24.2020 04:22	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.24.2020 04:22	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.24.2020 04:22	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.24.2020 04:22	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.24.2020 04:22	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.24.2020 04:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.24.2020 04:22	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.24.2020 04:22	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS48**
Lab Sample Id: 682353-016

Matrix: Soil
Date Collected: 12.22.2020 13:03

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:59

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146073

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.84	4.99	mg/kg	12.24.2020 12:47		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.28.2020 22:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.28.2020 22:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.28.2020 22:06	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.28.2020 22:06	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.28.2020 22:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-130	12.28.2020 22:06	
o-Terphenyl	84-15-1	111	%	70-130	12.28.2020 22:06	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS48**
Lab Sample Id: 682353-016

Matrix: Soil
Date Collected: 12.22.2020 13:03

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 16:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145939

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.24.2020 04:42	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.24.2020 04:42	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.24.2020 04:42	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.24.2020 04:42	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.24.2020 04:42	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.24.2020 04:42	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.24.2020 04:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	12.24.2020 04:42	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.24.2020 04:42	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS50**
Lab Sample Id: 682353-017

Matrix: Soil
Date Collected: 12.22.2020 13:11

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:59

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146073

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	35.5	4.97	mg/kg	12.24.2020 12:53		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.28.2020 22:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.28.2020 22:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.28.2020 22:28	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.28.2020 22:28	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.28.2020 22:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-130	12.28.2020 22:28	
o-Terphenyl	84-15-1	117	%	70-130	12.28.2020 22:28	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS50**
Lab Sample Id: 682353-017

Matrix: Soil
Date Collected: 12.22.2020 13:11

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 16:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145939

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.24.2020 05:02	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.24.2020 05:02	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.24.2020 05:02	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.24.2020 05:02	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.24.2020 05:02	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.24.2020 05:02	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.24.2020 05:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.24.2020 05:02	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.24.2020 05:02	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS51**
Lab Sample Id: 682353-018

Matrix: Soil
Date Collected: 12.22.2020 13:12

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:59

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146073

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.9	4.97	mg/kg	12.24.2020 12:58		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.28.2020 22:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.28.2020 22:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.28.2020 22:51	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.28.2020 22:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.28.2020 22:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	12.28.2020 22:51	
o-Terphenyl	84-15-1	114	%	70-130	12.28.2020 22:51	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS51**
Lab Sample Id: 682353-018

Matrix: Soil
Date Collected: 12.22.2020 13:12

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 16:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145939

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.24.2020 05:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.24.2020 05:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.24.2020 05:23	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.24.2020 05:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.24.2020 05:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.24.2020 05:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.24.2020 05:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	12.24.2020 05:23	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.24.2020 05:23	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS53**
Lab Sample Id: 682353-019

Matrix: Soil
Date Collected: 12.22.2020 13:15

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:59

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146073

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	67.2	4.97	mg/kg	12.24.2020 13:13		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.28.2020 23:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.28.2020 23:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.28.2020 23:13	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.28.2020 23:13	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.28.2020 23:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-130	12.28.2020 23:13	
o-Terphenyl	84-15-1	126	%	70-130	12.28.2020 23:13	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **FS53**
Lab Sample Id: 682353-019

Matrix: Soil
Date Collected: 12.22.2020 13:15

Date Received: 12.22.2020 16:45
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 16:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145939

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.24.2020 05:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.24.2020 05:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.24.2020 05:43	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.24.2020 05:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.24.2020 05:43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.24.2020 05:43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.24.2020 05:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.24.2020 05:43	
4-Bromofluorobenzene	460-00-4	111	%	70-130	12.24.2020 05:43	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW10**
Lab Sample Id: 682353-020

Matrix: Soil
Date Collected: 12.22.2020 11:32

Date Received: 12.22.2020 16:45
Sample Depth: 0 - 5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:59

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146073

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	12.24.2020 13:18	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 12.28.2020 10:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.28.2020 23:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.28.2020 23:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.28.2020 23:35	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.28.2020 23:35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.28.2020 23:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	129	%	70-130	12.28.2020 23:35	
o-Terphenyl	84-15-1	133	%	70-130	12.28.2020 23:35	**



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW10**
Lab Sample Id: 682353-020

Matrix: Soil
Date Collected: 12.22.2020 11:32

Date Received: 12.22.2020 16:45
Sample Depth: 0 - 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 16:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145939

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.24.2020 06:04	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.24.2020 06:04	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.24.2020 06:04	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.24.2020 06:04	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.24.2020 06:04	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.24.2020 06:04	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.24.2020 06:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.24.2020 06:04	
1,4-Difluorobenzene	540-36-3	93	%	70-130	12.24.2020 06:04	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW11**
Lab Sample Id: 682353-021

Matrix: Soil
Date Collected: 12.22.2020 11:24

Date Received: 12.22.2020 16:45
Sample Depth: 0 - 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:59

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146073

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	188	4.99	mg/kg	12.24.2020 13:24		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: DVM

Date Prep: 12.28.2020 16:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.29.2020 01:23	UX	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.29.2020 01:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.29.2020 01:23	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.29.2020 01:23	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.29.2020 01:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-130	12.29.2020 01:23	
o-Terphenyl	84-15-1	112	%	70-130	12.29.2020 01:23	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW11**
Lab Sample Id: 682353-021

Matrix: Soil
Date Collected: 12.22.2020 11:24

Date Received: 12.22.2020 16:45
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 16:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145939

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.24.2020 06:24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.24.2020 06:24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.24.2020 06:24	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.24.2020 06:24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.24.2020 06:24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.24.2020 06:24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.24.2020 06:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.24.2020 06:24	
4-Bromofluorobenzene	460-00-4	117	%	70-130	12.24.2020 06:24	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW12**
Lab Sample Id: 682353-022

Matrix: Soil
Date Collected: 12.22.2020 11:28

Date Received: 12.22.2020 16:45
Sample Depth: 0 - 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

Analyst: SPC

Date Prep: 12.23.2020 17:59

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146073

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	48.8	5.02	mg/kg	12.24.2020 13:29		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: DVM

Date Prep: 12.28.2020 16:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3146247

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.29.2020 02:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.29.2020 02:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.29.2020 02:29	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.29.2020 02:29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.29.2020 02:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	12.29.2020 02:29	
o-Terphenyl	84-15-1	104	%	70-130	12.29.2020 02:29	



Certificate of Analytical Results 682353

LT Environmental, Inc., Arvada, CO

PLU 15 TWR 104H

Sample Id: **SW12**
Lab Sample Id: 682353-022

Matrix: Soil
Date Collected: 12.22.2020 11:28

Date Received: 12.22.2020 16:45
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 12.23.2020 16:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Seq Number: 3145939

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.24.2020 06:44	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.24.2020 06:44	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.24.2020 06:44	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.24.2020 06:44	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.24.2020 06:44	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.24.2020 06:44	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.24.2020 06:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	12.24.2020 06:44	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.24.2020 06:44	

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



LT Environmental, Inc.

PLU 15 TWR 104H

Analytical Method: Chloride by EPA 300

Seq Number: 3145947

MB Sample Id: 7717799-1-BLK

Matrix: Solid

LCS Sample Id: 7717799-1-BKS

Prep Method: E300P

Date Prep: 12.23.2020

LCSD Sample Id: 7717799-1-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	254	102	255	102	90-110	0	20	mg/kg	12.23.2020 23:15	

Analytical Method: Chloride by EPA 300

Seq Number: 3146072

MB Sample Id: 7717804-1-BLK

Matrix: Solid

LCS Sample Id: 7717804-1-BKS

Prep Method: E300P

Date Prep: 12.23.2020

LCSD Sample Id: 7717804-1-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	256	102	254	102	90-110	1	20	mg/kg	12.24.2020 09:25	

Analytical Method: Chloride by EPA 300

Seq Number: 3146073

MB Sample Id: 7717805-1-BLK

Matrix: Solid

LCS Sample Id: 7717805-1-BKS

Prep Method: E300P

Date Prep: 12.23.2020

LCSD Sample Id: 7717805-1-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	254	102	253	101	90-110	0	20	mg/kg	12.24.2020 12:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3145947

Parent Sample Id: 682359-041

Matrix: Soil

MS Sample Id: 682359-041 S

Prep Method: E300P

Date Prep: 12.23.2020

MSD Sample Id: 682359-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	58.5	250	315	103	315	103	90-110	0	20	mg/kg	12.23.2020 23:30	

Analytical Method: Chloride by EPA 300

Seq Number: 3145947

Parent Sample Id: 682383-003

Matrix: Soil

MS Sample Id: 682383-003 S

Prep Method: E300P

Date Prep: 12.23.2020

MSD Sample Id: 682383-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12.8	249	280	107	272	104	90-110	3	20	mg/kg	12.24.2020 00:43	

Analytical Method: Chloride by EPA 300

Seq Number: 3146072

Parent Sample Id: 682385-004

Matrix: Soil

MS Sample Id: 682385-004 S

Prep Method: E300P

Date Prep: 12.23.2020

MSD Sample Id: 682385-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	216	249	459	98	457	97	90-110	0	20	mg/kg	12.24.2020 09:40	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



LT Environmental, Inc.
PLU 15 TWR 104H

Analytical Method: Chloride by EPA 300

Seq Number: 3146072

Parent Sample Id: 682415-004

Matrix: Soil

MS Sample Id: 682415-004 S

Prep Method: E300P

Date Prep: 12.23.2020

MSD Sample Id: 682415-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1810	1250	3060	100	3010	96	90-110	2	20	mg/kg	12.24.2020 10:53	

Analytical Method: Chloride by EPA 300

Seq Number: 3146073

Parent Sample Id: 682353-014

Matrix: Soil

MS Sample Id: 682353-014 S

Prep Method: E300P

Date Prep: 12.23.2020

MSD Sample Id: 682353-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	20.3	252	288	106	287	106	90-110	0	20	mg/kg	12.24.2020 12:32	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146251

MB Sample Id: 7718032-1-BLK

Matrix: Solid

LCS Sample Id: 7718032-1-BKS

Prep Method: SW8015P

Date Prep: 12.28.2020

LCSD Sample Id: 7718032-1-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	1060	106	1080	108	70-130	2	20	mg/kg	12.28.2020 14:34	
Diesel Range Organics (DRO)	<50.0	1000	964	96	942	94	70-130	2	20	mg/kg	12.28.2020 14:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		102		123		70-130	%	12.28.2020 14:34
o-Terphenyl	101		113		106		70-130	%	12.28.2020 14:34

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146247

MB Sample Id: 7718035-1-BLK

Matrix: Solid

LCS Sample Id: 7718035-1-BKS

Prep Method: SW8015P

Date Prep: 12.28.2020

LCSD Sample Id: 7718035-1-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	1030	103	1030	103	70-130	0	20	mg/kg	12.29.2020 00:40	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1100	110	70-130	1	20	mg/kg	12.29.2020 00:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		122		134	**	70-130	%	12.29.2020 00:40
o-Terphenyl	103		124		126		70-130	%	12.29.2020 00:40

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146251

Matrix: Solid

MB Sample Id: 7718032-1-BLK

Prep Method: SW8015P

Date Prep: 12.28.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.28.2020 14:11	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
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



LT Environmental, Inc.
PLU 15 TWR 104H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146247

Matrix: Solid

Prep Method: SW8015P

Date Prep: 12.28.2020

MB Sample Id: 7718035-1-BLK

Parameter

Motor Oil Range Hydrocarbons (MRO)

**MB
Result**

<50.0

Units

mg/kg

**Analysis
Date**

12.29.2020 00:18

Flag**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3146251

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.28.2020

Parent Sample Id: 682353-001

MS Sample Id: 682353-001 S

MSD Sample Id: 682353-001 SD

Parameter

Gasoline Range Hydrocarbons (GRO)

**Parent
Result**

<49.9

**Spike
Amount**

997

**MS
Result**

1680

**MS
%Rec**

169

**MSD
Result**

1280

**MSD
%Rec**

128

Limits

70-130

%RPD

27

**RPD
Limit**

20

Units

mg/kg

**Analysis
Date**

12.28.2020 15:41

Flag

Diesel Range Organics (DRO)

<49.9

997

1000

100

1060

106

70-130

6

20

mg/kg

12.28.2020 15:41

Surrogate

1-Chlorooctane

**MS
%Rec**

108

**MS
Flag****MSD
%Rec**

116

**MSD
Flag****Limits**

70-130

Units

%

**Analysis
Date**

12.28.2020 15:41

o-Terphenyl

106

113

70-130

%

12.28.2020 15:41

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146247

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.28.2020

Parent Sample Id: 682353-021

MS Sample Id: 682353-021 S

MSD Sample Id: 682353-021 SD

Parameter

Gasoline Range Hydrocarbons (GRO)

**Parent
Result**

<49.9

**Spike
Amount**

997

**MS
Result**

1370

**MS
%Rec**

137

**MSD
Result**

1350

**MSD
%Rec**

136

Limits

70-130

%RPD

1

**RPD
Limit**

20

Units

mg/kg

**Analysis
Date**

12.29.2020 01:45

Flag

Diesel Range Organics (DRO)

<49.9

997

1140

114

1100

110

70-130

4

20

mg/kg

12.29.2020 01:45

Surrogate

1-Chlorooctane

**MS
%Rec**

145

**MS
Flag**

**

**MSD
%Rec**

140

**MSD
Flag**

**

Limits

70-130

Units

%

**Analysis
Date**

12.29.2020 01:45

o-Terphenyl

131

**

140

**

70-130

%

12.29.2020 01:45

Analytical Method: BTEX by EPA 8021B

Seq Number: 3145936

Matrix: Solid

Prep Method: SW5035A

Date Prep: 12.23.2020

MB Sample Id: 7717840-1-BLK

LCS Sample Id: 7717840-1-BKS

LCSD Sample Id: 7717840-1-BSD

Parameter

Benzene

**MB
Result**

<0.00200

**Spike
Amount**

0.100

**LCS
Result**

0.0976

**LCS
%Rec**

98

**LCSD
Result**

0.0978

**LCSD
%Rec**

98

Limits

70-130

%RPD

0

**RPD
Limit**

35

Units

mg/kg

**Analysis
Date**

12.23.2020 21:02

Flag

Toluene

<0.00200

0.100

0.0876

88

0.0884

88

70-130

1

35

mg/kg

12.23.2020 21:02

Ethylbenzene

<0.00200

0.100

0.0874

87

0.0887

89

70-130

1

35

mg/kg

12.23.2020 21:02

m,p-Xylenes

<0.00400

0.200

0.172

86

0.173

87

70-130

1

35

mg/kg

12.23.2020 21:02

o-Xylene

<0.00200

0.100

0.0849

85

0.0863

86

70-130

2

35

mg/kg

12.23.2020 21:02

Surrogate

1,4-Difluorobenzene

**MB
%Rec**

88

**MB
Flag****LCS
%Rec**

99

**LCS
Flag****LCSD
%Rec**

103

**LCSD
Flag****Limits**

70-130

Units

%

**Analysis
Date**

12.23.2020 21:02

4-Bromofluorobenzene

111

97

100

70-130

%

12.23.2020 21:02

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
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



LT Environmental, Inc.
PLU 15 TWR 104H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3145939

Matrix: Solid

Prep Method: SW5035A

Date Prep: 12.23.2020

MB Sample Id: 7717844-1-BLK

LCS Sample Id: 7717844-1-BKS

LCSD Sample Id: 7717844-1-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	0.0890	89	0.0937	94	70-130	5	35	mg/kg	12.24.2020 02:01	
Toluene	<0.00200	0.100	0.0851	85	0.0886	89	70-130	4	35	mg/kg	12.24.2020 02:01	
Ethylbenzene	<0.00200	0.100	0.0896	90	0.0915	92	70-130	2	35	mg/kg	12.24.2020 02:01	
m,p-Xylenes	<0.00400	0.200	0.178	89	0.180	90	70-130	1	35	mg/kg	12.24.2020 02:01	
o-Xylene	<0.00200	0.100	0.0906	91	0.0915	92	70-130	1	35	mg/kg	12.24.2020 02:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		98		99		70-130	%	12.24.2020 02:01
4-Bromofluorobenzene	117		103		99		70-130	%	12.24.2020 02:01

Analytical Method: BTEX by EPA 8021B

Seq Number: 3145936

Matrix: Soil

Prep Method: SW5035A

Date Prep: 12.23.2020

Parent Sample Id: 682359-041

MS Sample Id: 682359-041 S

MSD Sample Id: 682359-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0811	81	0.0715	72	70-130	13	35	mg/kg	12.23.2020 21:43	
Toluene	<0.00199	0.0996	0.0848	85	0.0835	84	70-130	2	35	mg/kg	12.23.2020 21:43	
Ethylbenzene	<0.00199	0.0996	0.0842	85	0.0832	84	70-130	1	35	mg/kg	12.23.2020 21:43	
m,p-Xylenes	<0.00398	0.199	0.164	82	0.152	76	70-130	8	35	mg/kg	12.23.2020 21:43	
o-Xylene	<0.00199	0.0996	0.0748	75	0.0797	80	70-130	6	35	mg/kg	12.23.2020 21:43	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		98		70-130	%	12.23.2020 21:43
4-Bromofluorobenzene	105		105		70-130	%	12.23.2020 21:43

Analytical Method: BTEX by EPA 8021B

Seq Number: 3145939

Matrix: Soil

Prep Method: SW5035A

Date Prep: 12.23.2020

Parent Sample Id: 682353-015

MS Sample Id: 682353-015 S

MSD Sample Id: 682353-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0840	84	0.0828	83	70-130	1	35	mg/kg	12.24.2020 02:42	
Toluene	<0.00200	0.0998	0.0805	81	0.0805	81	70-130	0	35	mg/kg	12.24.2020 02:42	
Ethylbenzene	<0.00200	0.0998	0.0838	84	0.0848	85	70-130	1	35	mg/kg	12.24.2020 02:42	
m,p-Xylenes	<0.00399	0.200	0.168	84	0.173	87	70-130	3	35	mg/kg	12.24.2020 02:42	
o-Xylene	<0.00200	0.0998	0.0845	85	0.0869	87	70-130	3	35	mg/kg	12.24.2020 02:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		98		70-130	%	12.24.2020 02:42
4-Bromofluorobenzene	107		111		70-130	%	12.24.2020 02:42

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 281-392-7550
Hobbs, NM (575-392-7550)

Work Order No: 1006505

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Chain of Custody

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	wmather@ltenv.com, dmoir@ltenv.com

Work Order Comments			
Program:	UST/PST ☐ RP ☐ Growfields ☒ RC ☐ Perfund ☐		
State of Project:			
Reporting Level II	☐ Level III	☐ PST/UST	☐ RP ☐ Level IV ☐
Deliverables:	EDD ☐ ADAPT ☐	Other: _____	

ANALYSIS REQUEST										Work Order Notes	
Project Name:		PLU 15 TWR 104H				Turn Around					
Project Number:		012920150				Routine		A			
P.O. Number:		Eddy				Rush:					
Sampler's Name:		William Mather				Due Date:					
SAMPLE RECEIPT											
Temperature (°C):		4.0 / 3.8		Temp Blank:		Yes No		Wet Ice:		Yes No	
Received Intact:		Yes No		Thermometer ID		7-NM-007					
Cooler Custody Seals:		Yes No		N/A		Correction Factor:		-0.2			
Sample Custody Seals:		Yes No		N/A		Total Containers:		22			
Number of Containers											
A 8015)											
PA 0=8021)											
(EPA 300.0)											
TAT starts the day received by the lab if received by 4:30pm											

[illegible]

Total	200.7 / 6010	200.8 / 6020:	
8RCRA	13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U			1631 / 245.1 / 7470 / 7471 : Hg

service. Xencio will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xencio. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xencio, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		12-22-26 1645			

Work Order No:

1082353

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[illegible]

SAMPLE RECEIPT					
Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):					
Received Intact:	Yes	No	Thermometer ID		
Cooler Custody Seals:	Yes	No	N/A		
Sample Custody Seals:	Yes	No	N/A		
	Total Containers:				

Number of Containers

PA 8015)

PA 0=8021)

(EPA 300.0)

TAT starts the day received by the lab. if received by 4:30pm

[illegible]

Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Circle Method(s) and Metal(s) to be analyzed

TC1P / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time

4120	use off	12-27-28 1645 ₂				
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[illegible]



Chain of Custody

Work Order No: 682353

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

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Page 3 of 3

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Litrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	wmather@ltenv.com, dmair@ltenv.com

Program: UST/PST	☐ RP	☐ Groundfields	☐ RC	☐ \$perfund
State of Project:				
Reporting Level II	☐ Level III	☐ ST/UST	☐ RP	☐ Level IV
Deliverables: EDD	☐	ADAPT	☐	Other:

Project Name:	PLU 15 TWR 104H	Turn Around	
Project Number:	012920150	Routine	
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):		Received Intact:	Yes	No	Thermometer ID		
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:			
Sample Custody Seals:	Yes	No	N/A	Total Containers:			

Sample Identification					Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EP	BTEX (E	Chloride											Sample Comments
SW11					S	12/22/2020	11:24	0-3'	1	X	X	X											Composite
SW12					S	12/22/2020	11:28	0-3'	1	X	X	X											Composite
										</													

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		12-22-20 1641			

Inter-Office Shipment

IOS Number : **75487**

Date/Time: 12.23.2020

Created by: Jessica Kramer

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.:

E-Mail: jessica.kramer@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
682353-001	S	FS24	12.22.2020 09:47	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-001	S	FS24	12.22.2020 09:47	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-001	S	FS24	12.22.2020 09:47	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-002	S	FS34	12.22.2020 10:03	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-002	S	FS34	12.22.2020 10:03	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-002	S	FS34	12.22.2020 10:03	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-003	S	FS35	12.22.2020 10:06	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-003	S	FS35	12.22.2020 10:06	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-003	S	FS35	12.22.2020 10:06	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-004	S	FS36	12.22.2020 10:09	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-004	S	FS36	12.22.2020 10:09	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-004	S	FS36	12.22.2020 10:09	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-005	S	FS37	12.22.2020 10:13	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-005	S	FS37	12.22.2020 10:13	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-005	S	FS37	12.22.2020 10:13	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-006	S	FS38	12.22.2020 10:16	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-006	S	FS38	12.22.2020 10:16	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-006	S	FS38	12.22.2020 10:16	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-007	S	FS39	12.22.2020 12:46	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-007	S	FS39	12.22.2020 12:46	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-007	S	FS39	12.22.2020 12:46	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-008	S	FS40	12.22.2020 12:49	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-008	S	FS40	12.22.2020 12:49	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-008	S	FS40	12.22.2020 12:49	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-009	S	FS41	12.22.2020 12:53	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	

Inter-Office Shipment

IOS Number : **75487**

Date/Time: 12.23.2020

Created by: Jessica Kramer

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.:

E-Mail: jessica.kramer@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
682353-009	S	FS41	12.22.2020 12:53	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-009	S	FS41	12.22.2020 12:53	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-010	S	FS42	12.22.2020 12:54	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-010	S	FS42	12.22.2020 12:54	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-010	S	FS42	12.22.2020 12:54	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-011	S	FS43	12.22.2020 12:48	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-011	S	FS43	12.22.2020 12:48	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-011	S	FS43	12.22.2020 12:48	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-012	S	FS44	12.22.2020 12:50	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-012	S	FS44	12.22.2020 12:50	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-012	S	FS44	12.22.2020 12:50	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-013	S	FS45	12.22.2020 12:52	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-013	S	FS45	12.22.2020 12:52	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-013	S	FS45	12.22.2020 12:52	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-014	S	FS46	12.22.2020 12:57	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-014	S	FS46	12.22.2020 12:57	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-014	S	FS46	12.22.2020 12:57	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-015	S	FS47	12.22.2020 13:00	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-015	S	FS47	12.22.2020 13:00	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-015	S	FS47	12.22.2020 13:00	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-016	S	FS48	12.22.2020 13:03	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-016	S	FS48	12.22.2020 13:03	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-016	S	FS48	12.22.2020 13:03	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-017	S	FS50	12.22.2020 13:11	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-017	S	FS50	12.22.2020 13:11	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	

Inter Office Shipment or Sample Comments:

Inter-Office Shipment

IOS Number : **75487**

Date/Time: 12.23.2020

Created by: Jessica Kramer

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.:

E-Mail: jessica.kramer@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
682353-017	S	FS50	12.22.2020 13:11	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-018	S	FS51	12.22.2020 13:12	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-018	S	FS51	12.22.2020 13:12	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-018	S	FS51	12.22.2020 13:12	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-019	S	FS53	12.22.2020 13:15	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-019	S	FS53	12.22.2020 13:15	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-019	S	FS53	12.22.2020 13:15	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-020	S	SW10	12.22.2020 11:32	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-020	S	SW10	12.22.2020 11:32	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-020	S	SW10	12.22.2020 11:32	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-021	S	SW11	12.22.2020 11:24	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	
682353-021	S	SW11	12.22.2020 11:24	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-021	S	SW11	12.22.2020 11:24	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-022	S	SW12	12.22.2020 11:28	SW8021B	BTEX by EPA 8021B	12.29.2020	01.05.2021	JKR	BZ BZME EBZ XYLENE	
682353-022	S	SW12	12.22.2020 11:28	E300_CL	Chloride by EPA 300	12.29.2020	01.19.2021	JKR	CL	
682353-022	S	SW12	12.22.2020 11:28	SW8015MOD_NM	TPH by SW8015 Mod	12.29.2020	01.05.2021	JKR	GRO-DRO PHCC10C28	

Inter Office Shipment or Sample Comments:

Relinquished By:



Received By:



Date Relinquished: Jessica Kramer

Date Received:

Jessica Kramer

12.23.2020

12.23.2020

Cooler Temperature: 3.2

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 75487

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sent By: Jessica Kramer

Date Sent: 12.23.2020 11.33 AM

Received By: Jessica Kramer

Date Received: 12.23.2020 02.47 PM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	3.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:



Jessica Kramer

Date: 12.23.2020

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12.22.2020 04.45.00 PM

Work Order #: 682353

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#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)?	Yes
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

Samples sent to Midland.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 12.23.2020

Checklist reviewed by:



Jessica Kramer

Date: 12.28.2020

Certificate of Analysis Summary 683459



WSP USA, Dallas, TX

Project Name: PLU 15 TWR 104H

Project Id: TE012920150

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue 01.05.2021 15:17

Report Date: 01.07.2021 10:09

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	683459-001	683459-002	683459-003	683459-004	683459-005	683459-006
	<i>Field Id:</i>	PH01	PH01 A	PH01 B	PH02	PH02 A	PH02 B
	<i>Depth:</i>	2- ft	4- ft	6- ft	2- ft	4- ft	6- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	01.05.2021 09:35	01.05.2021 09:45	01.05.2021 09:55	01.05.2021 10:05	01.05.2021 10:15	01.05.2021 10:25
BTEX by EPA 8021B	<i>Extracted:</i>	01.05.2021 16:00	01.05.2021 16:00	01.05.2021 16:00	01.05.2021 16:00	01.05.2021 16:00	01.05.2021 16:00
	<i>Analyzed:</i>	01.05.2021 19:54	01.05.2021 20:23	01.05.2021 20:45	01.05.2021 21:08	01.05.2021 21:30	01.05.2021 21:53
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00403 0.00403	<0.00399 0.00399	<0.00397 0.00397	<0.00399 0.00399	<0.00399 0.00399	<0.00401 0.00401
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	01.05.2021 17:00	01.05.2021 17:00	01.05.2021 17:00	01.05.2021 17:00	01.05.2021 17:00	01.05.2021 17:00
	<i>Analyzed:</i>	01.05.2021 17:52	01.05.2021 18:10	01.05.2021 18:16	01.05.2021 18:22	01.05.2021 18:28	01.05.2021 18:46
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<9.90 9.90	41.2 10.1	11.9 10.1	71.1 9.92	12.1 9.94	<10.1 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	01.05.2021 18:00	01.05.2021 18:00	01.05.2021 18:00	01.05.2021 18:00	01.05.2021 18:00	01.05.2021 18:00
	<i>Analyzed:</i>	01.05.2021 20:34	01.05.2021 20:54	01.05.2021 21:14	01.05.2021 21:34	01.05.2021 22:14	01.05.2021 22:35
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<49.9 49.9	<50.2 50.2	<50.2 50.2	<50.1 50.1	<49.8 49.8
Diesel Range Organics (DRO)		<50.1 50.1	<49.9 49.9	<50.2 50.2	<50.2 50.2	<50.1 50.1	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.9 49.9	<50.2 50.2	<50.2 50.2	<50.1 50.1	<49.8 49.8
Total GRO-DRO		<50.1 50.1	<49.9 49.9	<50.2 50.2	<50.2 50.2	<50.1 50.1	<49.8 49.8
Total TPH		<50.1 50.1	<49.9 49.9	<50.2 50.2	<50.2 50.2	<50.1 50.1	<49.8 49.8

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 683459



WSP USA, Dallas, TX

Project Name: PLU 15 TWR 104H

Project Id: TE012920150

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue 01.05.2021 15:17

Report Date: 01.07.2021 10:09

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	683459-007	683459-008	683459-009			
	Field Id:	PH03	PH03 A	PH03 B			
	Depth:	2- ft	4- ft	6- ft			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	01.05.2021 10:35	01.05.2021 10:45	01.05.2021 10:55			
BTEX by EPA 8021B	Extracted:	01.05.2021 16:00	01.05.2021 16:00	01.05.2021 16:00			
	Analyzed:	01.05.2021 22:15	01.05.2021 22:38	01.05.2021 23:00			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200			
Toluene		<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200			
Ethylbenzene		<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200			
m,p-Xylenes		<0.00402 0.00402	<0.00402 0.00402	<0.00399 0.00399			
o-Xylene		<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200			
Total Xylenes		<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200			
Total BTEX		<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200			
Chloride by EPA 300	Extracted:	01.05.2021 17:00	01.05.2021 17:00	01.05.2021 17:00			
	Analyzed:	01.05.2021 18:52	01.05.2021 18:58	01.05.2021 19:04			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		<9.98 9.98	<9.98 9.98	<10.0 10.0			
TPH by SW8015 Mod	Extracted:	01.05.2021 18:00	01.05.2021 18:00	01.05.2021 18:00			
	Analyzed:	01.05.2021 22:55	01.05.2021 23:15	01.05.2021 23:35			
	Units/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			
Diesel Range Organics (DRO)		<49.8 49.8	<50.0 50.0	<50.0 50.0			
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.0 50.0	<50.0 50.0			
Total GRO-DRO		<49.8 49.8	<50.0 50.0	<50.0 50.0			
Total TPH		<49.8 49.8	<50.0 50.0	<50.0 50.0			

BRL - Below Reporting Limit

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



Analytical Report 683459

for

WSP USA

Project Manager: Dan Moir

PLU 15 TWR 104H

TE012920150

01.07.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.07.2021

Project Manager: **Dan Moir**

WSP USA

2777 N. Stemmons Freeway, Suite 1600
Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **683459**

PLU 15 TWR 104H

Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 683459. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 683459 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 683459****WSP USA, Dallas, TX**

PLU 15 TWR 104H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	01.05.2021 09:35	2 ft	683459-001
PH01 A	S	01.05.2021 09:45	4 ft	683459-002
PH01 B	S	01.05.2021 09:55	6 ft	683459-003
PH02	S	01.05.2021 10:05	2 ft	683459-004
PH02 A	S	01.05.2021 10:15	4 ft	683459-005
PH02 B	S	01.05.2021 10:25	6 ft	683459-006
PH03	S	01.05.2021 10:35	2 ft	683459-007
PH03 A	S	01.05.2021 10:45	4 ft	683459-008
PH03 B	S	01.05.2021 10:55	6 ft	683459-009



CASE NARRATIVE

Client Name: WSP USA

Project Name: PLU 15 TWR 104H

Project ID: TE012920150
Work Order Number(s): 683459

Report Date: 01.07.2021
Date Received: 01.05.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH01**
Lab Sample Id: 683459-001

Matrix: Soil
Date Collected: 01.05.2021 09:35

Date Received: 01.05.2021 15:17
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.90	9.90	mg/kg	01.05.2021 17:52	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146827

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.05.2021 20:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.05.2021 20:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.05.2021 20:34	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	01.05.2021 20:34	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.05.2021 20:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	01.05.2021 20:34	
o-Terphenyl	84-15-1	113	%	70-135	01.05.2021 20:34	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH01**
Lab Sample Id: 683459-001

Matrix: Soil
Date Collected: 01.05.2021 09:35

Date Received: 01.05.2021 15:17
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.05.2021 19:54	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.05.2021 19:54	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.05.2021 19:54	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.05.2021 19:54	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.05.2021 19:54	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.05.2021 19:54	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.05.2021 19:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	01.05.2021 19:54	
1,4-Difluorobenzene	540-36-3	97	%	70-130	01.05.2021 19:54	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH01 A**
Lab Sample Id: 683459-002

Matrix: Soil
Date Collected: 01.05.2021 09:45

Date Received: 01.05.2021 15:17
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	41.2	10.1	mg/kg	01.05.2021 18:10		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146827

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.05.2021 20:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.05.2021 20:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.05.2021 20:54	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	01.05.2021 20:54	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.05.2021 20:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	01.05.2021 20:54	
o-Terphenyl	84-15-1	106	%	70-135	01.05.2021 20:54	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH01 A**
Lab Sample Id: 683459-002

Matrix: Soil
Date Collected: 01.05.2021 09:45

Date Received: 01.05.2021 15:17
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.05.2021 20:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.05.2021 20:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.05.2021 20:23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.05.2021 20:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.05.2021 20:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.05.2021 20:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.05.2021 20:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.05.2021 20:23	
4-Bromofluorobenzene	460-00-4	112	%	70-130	01.05.2021 20:23	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH01 B**
Lab Sample Id: 683459-003

Matrix: Soil
Date Collected: 01.05.2021 09:55

Date Received: 01.05.2021 15:17
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.9	10.1	mg/kg	01.05.2021 18:16		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146827

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.05.2021 21:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.05.2021 21:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.05.2021 21:14	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.05.2021 21:14	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.05.2021 21:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	01.05.2021 21:14	
o-Terphenyl	84-15-1	101	%	70-135	01.05.2021 21:14	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH01 B**
Lab Sample Id: 683459-003

Matrix: Soil
Date Collected: 01.05.2021 09:55

Date Received: 01.05.2021 15:17
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.05.2021 20:45	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.05.2021 20:45	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.05.2021 20:45	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.05.2021 20:45	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.05.2021 20:45	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.05.2021 20:45	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.05.2021 20:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	01.05.2021 20:45	
4-Bromofluorobenzene	460-00-4	121	%	70-130	01.05.2021 20:45	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH02**
Lab Sample Id: 683459-004

Matrix: Soil
Date Collected: 01.05.2021 10:05

Date Received: 01.05.2021 15:17
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	71.1	9.92	mg/kg	01.05.2021 18:22		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146827

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.05.2021 21:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.05.2021 21:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.05.2021 21:34	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.05.2021 21:34	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.05.2021 21:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	01.05.2021 21:34	
o-Terphenyl	84-15-1	117	%	70-135	01.05.2021 21:34	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH02**
Lab Sample Id: 683459-004

Matrix: Soil
Date Collected: 01.05.2021 10:05

Date Received: 01.05.2021 15:17
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.05.2021 21:08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.05.2021 21:08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.05.2021 21:08	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.05.2021 21:08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.05.2021 21:08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.05.2021 21:08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.05.2021 21:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	01.05.2021 21:08	
4-Bromofluorobenzene	460-00-4	120	%	70-130	01.05.2021 21:08	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH02 A**
Lab Sample Id: 683459-005

Matrix: Soil
Date Collected: 01.05.2021 10:15

Date Received: 01.05.2021 15:17
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.1	9.94	mg/kg	01.05.2021 18:28		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146827

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.05.2021 22:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.05.2021 22:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.05.2021 22:14	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	01.05.2021 22:14	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.05.2021 22:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	01.05.2021 22:14	
o-Terphenyl	84-15-1	108	%	70-135	01.05.2021 22:14	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH02 A**
Lab Sample Id: 683459-005

Matrix: Soil
Date Collected: 01.05.2021 10:15

Date Received: 01.05.2021 15:17
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.05.2021 21:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.05.2021 21:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.05.2021 21:30	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.05.2021 21:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.05.2021 21:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.05.2021 21:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.05.2021 21:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	01.05.2021 21:30	
4-Bromofluorobenzene	460-00-4	124	%	70-130	01.05.2021 21:30	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH02 B**
Lab Sample Id: 683459-006

Matrix: Soil
Date Collected: 01.05.2021 10:25

Date Received: 01.05.2021 15:17
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	01.05.2021 18:46	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146827

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.05.2021 22:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.05.2021 22:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.05.2021 22:35	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	01.05.2021 22:35	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.05.2021 22:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	01.05.2021 22:35	
o-Terphenyl	84-15-1	104	%	70-135	01.05.2021 22:35	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH02 B**
Lab Sample Id: 683459-006

Matrix: Soil
Date Collected: 01.05.2021 10:25

Date Received: 01.05.2021 15:17
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.05.2021 21:53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.05.2021 21:53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.05.2021 21:53	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.05.2021 21:53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.05.2021 21:53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.05.2021 21:53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.05.2021 21:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	01.05.2021 21:53	
4-Bromofluorobenzene	460-00-4	118	%	70-130	01.05.2021 21:53	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH03**
Lab Sample Id: 683459-007

Matrix: Soil
Date Collected: 01.05.2021 10:35

Date Received: 01.05.2021 15:17
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	01.05.2021 18:52	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146827

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.05.2021 22:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.05.2021 22:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.05.2021 22:55	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	01.05.2021 22:55	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.05.2021 22:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	01.05.2021 22:55	
o-Terphenyl	84-15-1	98	%	70-135	01.05.2021 22:55	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH03**
Lab Sample Id: 683459-007

Matrix: Soil
Date Collected: 01.05.2021 10:35

Date Received: 01.05.2021 15:17
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.05.2021 22:15	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.05.2021 22:15	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.05.2021 22:15	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.05.2021 22:15	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.05.2021 22:15	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.05.2021 22:15	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.05.2021 22:15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	01.05.2021 22:15		
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.05.2021 22:15		



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH03 A**
Lab Sample Id: 683459-008

Matrix: Soil
Date Collected: 01.05.2021 10:45

Date Received: 01.05.2021 15:17
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	01.05.2021 18:58	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146827

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.05.2021 23:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.05.2021 23:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.05.2021 23:15	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	01.05.2021 23:15	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.05.2021 23:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	01.05.2021 23:15	
o-Terphenyl	84-15-1	113	%	70-135	01.05.2021 23:15	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH03 A**
Lab Sample Id: 683459-008

Matrix: Soil
Date Collected: 01.05.2021 10:45

Date Received: 01.05.2021 15:17
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.05.2021 22:38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.05.2021 22:38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.05.2021 22:38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.05.2021 22:38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.05.2021 22:38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.05.2021 22:38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.05.2021 22:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.05.2021 22:38	
4-Bromofluorobenzene	460-00-4	116	%	70-130	01.05.2021 22:38	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH03 B**
Lab Sample Id: 683459-009

Matrix: Soil
Date Collected: 01.05.2021 10:55

Date Received: 01.05.2021 15:17
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	01.05.2021 19:04	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146827

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.05.2021 23:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.05.2021 23:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.05.2021 23:35	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	01.05.2021 23:35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.05.2021 23:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	01.05.2021 23:35	
o-Terphenyl	84-15-1	116	%	70-135	01.05.2021 23:35	



Certificate of Analytical Results 683459

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **PH03 B**
Lab Sample Id: 683459-009

Matrix: Soil
Date Collected: 01.05.2021 10:55

Date Received: 01.05.2021 15:17
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.05.2021 23:00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.05.2021 23:00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.05.2021 23:00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.05.2021 23:00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.05.2021 23:00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.05.2021 23:00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.05.2021 23:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.05.2021 23:00		
4-Bromofluorobenzene	460-00-4	117	%	70-130	01.05.2021 23:00		



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



WSP USA
PLU 15 TWR 104H

Analytical Method: Chloride by EPA 300

Seq Number: 3146833

MB Sample Id: 7718500-1-BLK

Matrix: Solid

LCS Sample Id: 7718500-1-BKS

Prep Method: E300P

Date Prep: 01.05.2021

LCSD Sample Id: 7718500-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	257	103	258	103	90-110	0	20	mg/kg	01.05.2021 17:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3146833

Parent Sample Id: 683459-001

Matrix: Soil

MS Sample Id: 683459-001 S

Prep Method: E300P

Date Prep: 01.05.2021

MSD Sample Id: 683459-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.94	199	197	99	198	99	90-110	1	20	mg/kg	01.05.2021 17:58	

Analytical Method: Chloride by EPA 300

Seq Number: 3146833

Parent Sample Id: 683463-002

Matrix: Soil

MS Sample Id: 683463-002 S

Prep Method: E300P

Date Prep: 01.05.2021

MSD Sample Id: 683463-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.94	199	205	103	204	102	90-110	0	20	mg/kg	01.05.2021 19:22	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146827

MB Sample Id: 7718503-1-BLK

Matrix: Solid

LCS Sample Id: 7718503-1-BKS

Prep Method: SW8015P

Date Prep: 01.05.2021

LCSD Sample Id: 7718503-1-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	943	94	1080	108	70-135	14	35	mg/kg	01.05.2021 17:13	
Diesel Range Organics (DRO)	<50.0	1000	993	99	1090	109	70-135	9	35	mg/kg	01.05.2021 17:13	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		109		118		70-135	%	01.05.2021 17:13
o-Terphenyl	82		113		118		70-135	%	01.05.2021 17:13

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146827

Matrix: Solid

MB Sample Id: 7718503-1-BLK

Prep Method: SW8015P

Date Prep: 01.05.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.05.2021 16:53	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



WSP USA
PLU 15 TWR 104H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146827

Parent Sample Id: 683349-001

Matrix: Soil

MS Sample Id: 683349-001 S

Prep Method: SW8015P

Date Prep: 01.05.2021

MSD Sample Id: 683349-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	52.2	1000	1030	98	988	94	70-135	4	35	mg/kg	01.05.2021 18:13	
Diesel Range Organics (DRO)	574	1000	1540	97	1650	108	70-135	7	35	mg/kg	01.05.2021 18:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		104		70-135	%	01.05.2021 18:13
o-Terphenyl	107		103		70-135	%	01.05.2021 18:13

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146849

MB Sample Id: 7718508-1-BLK

Matrix: Solid

LCS Sample Id: 7718508-1-BKS

Prep Method: SW5035A

Date Prep: 01.05.2021

LCSD Sample Id: 7718508-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0978	98	0.0982	98	70-130	0	35	mg/kg	01.05.2021 17:51	
Toluene	<0.00200	0.100	0.0927	93	0.0906	91	70-130	2	35	mg/kg	01.05.2021 17:51	
Ethylbenzene	<0.00200	0.100	0.0971	97	0.0926	93	71-129	5	35	mg/kg	01.05.2021 17:51	
m,p-Xylenes	<0.00400	0.200	0.200	100	0.192	96	70-135	4	35	mg/kg	01.05.2021 17:51	
o-Xylene	<0.00200	0.100	0.0981	98	0.0966	97	71-133	2	35	mg/kg	01.05.2021 17:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		98		94		70-130	%	01.05.2021 17:51
4-Bromofluorobenzene	113		107		102		70-130	%	01.05.2021 17:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146849

Parent Sample Id: 683459-001

Matrix: Soil

MS Sample Id: 683459-001 S

Prep Method: SW5035A

Date Prep: 01.05.2021

MSD Sample Id: 683459-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.119	118	0.118	118	70-130	1	35	mg/kg	01.05.2021 18:36	
Toluene	<0.00201	0.101	0.111	110	0.109	109	70-130	2	35	mg/kg	01.05.2021 18:36	
Ethylbenzene	<0.00201	0.101	0.116	115	0.114	114	71-129	2	35	mg/kg	01.05.2021 18:36	
m,p-Xylenes	<0.00402	0.201	0.240	119	0.237	119	70-135	1	35	mg/kg	01.05.2021 18:36	
o-Xylene	<0.00201	0.101	0.118	117	0.116	116	71-133	2	35	mg/kg	01.05.2021 18:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		102		70-130	%	01.05.2021 18:36
4-Bromofluorobenzene	109		110		70-130	%	01.05.2021 18:36

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000

Chain of Custody

Work Order No: 1083459

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littlell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	slc@lennv.com, dmoir@lennv.com, kkennedy@lennv.com

Project Name:	PLU 15 TWR 104H	Turn Around	☒
Project Number:	TE012920150	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				ANALYSIS REQUEST				Work Order Notes	
Temperature (°C):	3.0/2.8	Temp Blank:	☒ Yes ☒ No	Wet Ice:	☒ Yes ☒ No				
Received Intact:	Yes	No	Thermometer ID		T-NH-007				
Cooler Custody Seals:	Yes	No	Correction Factor:		0.2				
Sample Custody Seals:	Yes	No	Total Containers:		4				
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers				
PH01	S	1/05/2021	935	2'	1	X	X	X	
PH01A	S	1/05/2021	945	4'	1	X	X	X	
PH01B	S	1/05/2021	955	6'	1	X	X	X	
PH02	S	1/05/2021	1005	2'	1	X	X	X	
PH02A	S	1/05/2021	1015	4'	1	X	X	X	
PH02B	S	1/05/2021	1025	6'	1	X	X	X	
PH03	S	1/05/2021	1035	2'	1	X	X	X	
PH03A	S	1/05/2021	1045	4'	1	X	X	X	
PH03B	S	1/05/2021	1055	6'	1	X	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		1-5-21 1517			2
					4
					6

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.05.2021 03.17.00 PM

Work Order #: 683459

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#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)?	No
#18 Water VOC samples have zero headspace?	N/A

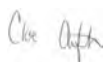
Samples recieved in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.05.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.06.2021

Certificate of Analysis Summary 683463



WSP USA, Dallas, TX

Project Name: PLU 15 TWR 104H

Project Id: TE012920150

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue 01.05.2021 15:17

Report Date: 01.07.2021 10:10

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	683463-001	683463-002	683463-003	683463-004	683463-005	683463-006
	<i>Field Id:</i>	SW13	SW13 A	SW13 B	SW14	SW14 A	SW14 B
	<i>Depth:</i>	2- ft	4- ft	6- ft	2- ft	4- ft	6- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	01.05.2021 12:00	01.05.2021 12:10	01.05.2021 12:20	01.05.2021 12:30	01.05.2021 12:40	01.05.2021 12:50
BTEX by EPA 8021B	<i>Extracted:</i>	01.05.2021 16:00	01.05.2021 16:00	01.05.2021 16:00	01.05.2021 16:00	01.05.2021 16:00	01.05.2021 16:00
	<i>Analyzed:</i>	01.05.2021 23:22	01.06.2021 00:13	01.06.2021 00:42	01.06.2021 09:41	01.06.2021 01:55	01.06.2021 02:24
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.0998 0.0998	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	4.50 0.399	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	3.99 0.399	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00397 0.00397	<0.00401 0.00401	31.1 0.798	<0.00402 0.00402	<0.00401 0.00401
o-Xylene		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	11.1 0.399	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	42.2 0.399	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	50.7 0.0998	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	01.05.2021 17:00	01.05.2021 17:00	01.05.2021 17:00	01.05.2021 17:00	01.05.2021 17:00	01.05.2021 17:00
	<i>Analyzed:</i>	01.05.2021 19:10	01.05.2021 19:16	01.05.2021 19:34	01.05.2021 19:40	01.05.2021 19:58	01.05.2021 20:04
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<10.0 10.0	<10.0 10.0	<10.0 10.0	5480 49.9	107 10.2	81.1 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	01.05.2021 18:00	01.05.2021 18:00	01.05.2021 18:00	01.05.2021 18:00	01.05.2021 18:00	01.05.2021 18:00
	<i>Analyzed:</i>	01.05.2021 20:54	01.05.2021 21:14	01.05.2021 21:34	01.05.2021 22:14	01.05.2021 22:35	01.05.2021 22:55
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<49.9 49.9	<50.1 50.1	330 49.9	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<50.1 50.1	<49.9 49.9	<50.1 50.1	4590 49.9	51.6 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.9 49.9	<50.1 50.1	679 49.9	<50.0 50.0	<49.9 49.9
Total GRO-DRO		<50.1 50.1	<49.9 49.9	<50.1 50.1	4920 49.9	51.6 50.0	<49.9 49.9
Total TPH		<50.1 50.1	<49.9 49.9	<50.1 50.1	5600 49.9	51.6 50.0	<49.9 49.9

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 683463



WSP USA, Dallas, TX

Project Name: PLU 15 TWR 104H

Project Id: TE012920150

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue 01.05.2021 15:17

Report Date: 01.07.2021 10:10

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	683463-007	683463-008	683463-009	683463-010	683463-011	683463-012
	<i>Field Id:</i>	SW15	SW16	SW17	SW18	SW19	SW20
	<i>Depth:</i>	0-6 ft	0-6 ft	0-5 ft	0-3 ft	0-3 ft	0-3 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	01.05.2021 13:15	01.05.2021 13:25	01.05.2021 13:35	01.05.2021 11:15	01.05.2021 11:25	01.05.2021 11:35
BTEX by EPA 8021B	<i>Extracted:</i>	01.05.2021 16:00	01.05.2021 16:00	01.05.2021 16:00	01.05.2021 16:00	01.05.2021 16:00	01.05.2021 17:12
	<i>Analyzed:</i>	01.06.2021 02:47	01.06.2021 03:09	01.06.2021 03:32	01.06.2021 03:54	01.06.2021 09:19	01.05.2021 19:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
Toluene		<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
Ethylbenzene		<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
m,p-Xylenes		<0.00396 0.00396	<0.00398 0.00398	<0.00397 0.00397	<0.00399 0.00399	<0.00403 0.00403	<0.00397 0.00397
o-Xylene		<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
Total Xylenes		<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
Total BTEX		<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	01.05.2021 17:00	01.05.2021 17:00	01.05.2021 17:00	01.05.2021 17:00	01.05.2021 17:00	01.05.2021 17:00
	<i>Analyzed:</i>	01.05.2021 20:10	01.05.2021 20:16	01.05.2021 20:22	01.05.2021 20:28	01.05.2021 20:34	01.05.2021 21:10
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		18.7 9.90	<10.0 10.0	14.1 9.94	503 10.0	62.7 10.1	55.3 9.96
TPH by SW8015 Mod	<i>Extracted:</i>	01.05.2021 18:00	01.05.2021 18:00	01.05.2021 18:00	01.05.2021 18:00	01.05.2021 18:00	01.05.2021 18:00
	<i>Analyzed:</i>	01.05.2021 23:15	01.05.2021 23:35	01.05.2021 23:55	01.06.2021 00:15	01.06.2021 00:36	01.06.2021 00:56
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.1 50.1	<49.9 49.9	107 49.9	<50.2 50.2	<50.3 50.3
Diesel Range Organics (DRO)		<50.2 50.2	56.8 50.1	<49.9 49.9	864 49.9	<50.2 50.2	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<49.9 49.9	90.1 49.9	<50.2 50.2	<50.3 50.3
Total GRO-DRO		<50.2 50.2	56.8 50.1	<49.9 49.9	971 49.9	<50.2 50.2	<50.3 50.3
Total TPH		<50.2 50.2	56.8 50.1	<49.9 49.9	1060 49.9	<50.2 50.2	<50.3 50.3

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 683463



WSP USA, Dallas, TX

Project Name: PLU 15 TWR 104H

Project Id: TE012920150

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue 01.05.2021 15:17

Report Date: 01.07.2021 10:10

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	683463-013					
	Field Id:	SW21					
	Depth:	0-3 ft					
	Matrix:	SOIL					
	Sampled:	01.05.2021 11:45					
BTEX by EPA 8021B	Extracted:	01.05.2021 17:12					
	Analyzed:	01.05.2021 19:56					
	Units/RL:	mg/kg RL					
Benzene		<0.00202 0.00202					
Toluene		<0.00202 0.00202					
Ethylbenzene		<0.00202 0.00202					
m,p-Xylenes		<0.00403 0.00403					
o-Xylene		<0.00202 0.00202					
Total Xylenes		<0.00202 0.00202					
Total BTEX		<0.00202 0.00202					
Chloride by EPA 300	Extracted:	01.05.2021 17:00					
	Analyzed:	01.05.2021 21:28					
	Units/RL:	mg/kg RL					
Chloride		433 9.94					
TPH by SW8015 Mod	Extracted:	01.05.2021 18:00					
	Analyzed:	01.06.2021 01:16					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		63.9 49.9					
Diesel Range Organics (DRO)		326 49.9					
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9					
Total GRO-DRO		390 49.9					
Total TPH		390 49.9					

BRL - Below Reporting Limit

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



Analytical Report 683463

for

WSP USA

Project Manager: Dan Moir

PLU 15 TWR 104H

TE012920150

01.07.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.07.2021

Project Manager: **Dan Moir**

WSP USA

2777 N. Stemmons Freeway, Suite 1600
Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **683463**

PLU 15 TWR 104H

Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 683463. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 683463 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 683463****WSP USA, Dallas, TX**

PLU 15 TWR 104H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW13	S	01.05.2021 12:00	2 ft	683463-001
SW13 A	S	01.05.2021 12:10	4 ft	683463-002
SW13 B	S	01.05.2021 12:20	6 ft	683463-003
SW14	S	01.05.2021 12:30	2 ft	683463-004
SW14 A	S	01.05.2021 12:40	4 ft	683463-005
SW14 B	S	01.05.2021 12:50	6 ft	683463-006
SW15	S	01.05.2021 13:15	0 - 6 ft	683463-007
SW16	S	01.05.2021 13:25	0 - 6 ft	683463-008
SW17	S	01.05.2021 13:35	0 - 5 ft	683463-009
SW18	S	01.05.2021 11:15	0 - 3 ft	683463-010
SW19	S	01.05.2021 11:25	0 - 3 ft	683463-011
SW20	S	01.05.2021 11:35	0 - 3 ft	683463-012
SW21	S	01.05.2021 11:45	0 - 3 ft	683463-013



CASE NARRATIVE

Client Name: WSP USA

Project Name: PLU 15 TWR 104H

Project ID: TE012920150
Work Order Number(s): 683463

Report Date: 01.07.2021
Date Received: 01.05.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW13**
Lab Sample Id: 683463-001

Matrix: Soil
Date Collected: 01.05.2021 12:00

Date Received: 01.05.2021 15:17
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	01.05.2021 19:10	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146828

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.05.2021 20:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.05.2021 20:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.05.2021 20:54	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	01.05.2021 20:54	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.05.2021 20:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	01.05.2021 20:54	
o-Terphenyl	84-15-1	114	%	70-135	01.05.2021 20:54	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW13**
Lab Sample Id: 683463-001

Matrix: Soil
Date Collected: 01.05.2021 12:00

Date Received: 01.05.2021 15:17
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.05.2021 23:22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.05.2021 23:22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.05.2021 23:22	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.05.2021 23:22	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.05.2021 23:22	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.05.2021 23:22	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.05.2021 23:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	01.05.2021 23:22	
4-Bromofluorobenzene	460-00-4	119	%	70-130	01.05.2021 23:22	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW13 A**
Lab Sample Id: 683463-002

Matrix: Soil
Date Collected: 01.05.2021 12:10

Date Received: 01.05.2021 15:17
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	01.05.2021 19:16	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146828

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.05.2021 21:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.05.2021 21:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.05.2021 21:14	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	01.05.2021 21:14	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.05.2021 21:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	01.05.2021 21:14	
o-Terphenyl	84-15-1	112	%	70-135	01.05.2021 21:14	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW13 A**
Lab Sample Id: 683463-002

Matrix: Soil
Date Collected: 01.05.2021 12:10

Date Received: 01.05.2021 15:17
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.06.2021 00:13	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.06.2021 00:13	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.06.2021 00:13	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.06.2021 00:13	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.06.2021 00:13	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.06.2021 00:13	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.06.2021 00:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	01.06.2021 00:13	
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.06.2021 00:13	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW13 B**
Lab Sample Id: 683463-003

Matrix: Soil
Date Collected: 01.05.2021 12:20

Date Received: 01.05.2021 15:17
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	01.05.2021 19:34	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146828

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.05.2021 21:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.05.2021 21:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.05.2021 21:34	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	01.05.2021 21:34	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.05.2021 21:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	01.05.2021 21:34	
o-Terphenyl	84-15-1	106	%	70-135	01.05.2021 21:34	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW13 B**
Lab Sample Id: 683463-003

Matrix: Soil
Date Collected: 01.05.2021 12:20

Date Received: 01.05.2021 15:17
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.06.2021 00:42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.06.2021 00:42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.06.2021 00:42	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.06.2021 00:42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.06.2021 00:42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.06.2021 00:42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.06.2021 00:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	01.06.2021 00:42	
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.06.2021 00:42	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW14**
Lab Sample Id: 683463-004

Matrix: Soil
Date Collected: 01.05.2021 12:30

Date Received: 01.05.2021 15:17
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5480	49.9	mg/kg	01.05.2021 19:40		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146828

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	330	49.9	mg/kg	01.05.2021 22:14		1
Diesel Range Organics (DRO)	C10C28DRO	4590	49.9	mg/kg	01.05.2021 22:14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	679	49.9	mg/kg	01.05.2021 22:14		1
Total GRO-DRO	PHC628	4920	49.9	mg/kg	01.05.2021 22:14		1
Total TPH	PHC635	5600	49.9	mg/kg	01.05.2021 22:14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	01.05.2021 22:14	
o-Terphenyl	84-15-1	114	%	70-135	01.05.2021 22:14	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW14**
Lab Sample Id: 683463-004

Matrix: Soil
Date Collected: 01.05.2021 12:30

Date Received: 01.05.2021 15:17
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0998	0.0998	mg/kg	01.06.2021 09:41	U	200
Toluene	108-88-3	4.50	0.399	mg/kg	01.06.2021 09:41		200
Ethylbenzene	100-41-4	3.99	0.399	mg/kg	01.06.2021 09:41		200
m,p-Xylenes	179601-23-1	31.1	0.798	mg/kg	01.06.2021 09:41		200
o-Xylene	95-47-6	11.1	0.399	mg/kg	01.06.2021 09:41		200
Total Xylenes	1330-20-7	42.2	0.399	mg/kg	01.06.2021 09:41		200
Total BTEX		50.7	0.0998	mg/kg	01.06.2021 09:41		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.06.2021 09:41	
4-Bromofluorobenzene	460-00-4	111	%	70-130	01.06.2021 09:41	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW14 A**
Lab Sample Id: 683463-005

Matrix: Soil
Date Collected: 01.05.2021 12:40

Date Received: 01.05.2021 15:17
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	107	10.2	mg/kg	01.05.2021 19:58		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146828

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.05.2021 22:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	51.6	50.0	mg/kg	01.05.2021 22:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.05.2021 22:35	U	1
Total GRO-DRO	PHC628	51.6	50.0	mg/kg	01.05.2021 22:35		1
Total TPH	PHC635	51.6	50.0	mg/kg	01.05.2021 22:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	01.05.2021 22:35	
o-Terphenyl	84-15-1	106	%	70-135	01.05.2021 22:35	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW14 A**
Lab Sample Id: 683463-005

Matrix: Soil
Date Collected: 01.05.2021 12:40

Date Received: 01.05.2021 15:17
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.06.2021 01:55	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.06.2021 01:55	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.06.2021 01:55	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.06.2021 01:55	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.06.2021 01:55	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.06.2021 01:55	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.06.2021 01:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.06.2021 01:55	
4-Bromofluorobenzene	460-00-4	113	%	70-130	01.06.2021 01:55	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW14 B**
Lab Sample Id: 683463-006

Matrix: Soil
Date Collected: 01.05.2021 12:50

Date Received: 01.05.2021 15:17
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	81.1	10.1	mg/kg	01.05.2021 20:04		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146828

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.05.2021 22:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.05.2021 22:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.05.2021 22:55	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	01.05.2021 22:55	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.05.2021 22:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	01.05.2021 22:55	
o-Terphenyl	84-15-1	116	%	70-135	01.05.2021 22:55	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW14 B**
Lab Sample Id: 683463-006

Matrix: Soil
Date Collected: 01.05.2021 12:50

Date Received: 01.05.2021 15:17
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.06.2021 02:24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.06.2021 02:24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.06.2021 02:24	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.06.2021 02:24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.06.2021 02:24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.06.2021 02:24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.06.2021 02:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	01.06.2021 02:24	
1,4-Difluorobenzene	540-36-3	105	%	70-130	01.06.2021 02:24	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW15**
Lab Sample Id: 683463-007

Matrix: Soil
Date Collected: 01.05.2021 13:15

Date Received: 01.05.2021 15:17
Sample Depth: 0 - 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.7	9.90	mg/kg	01.05.2021 20:10		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146828

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.05.2021 23:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.05.2021 23:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.05.2021 23:15	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.05.2021 23:15	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.05.2021 23:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	01.05.2021 23:15	
o-Terphenyl	84-15-1	106	%	70-135	01.05.2021 23:15	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW15**
Lab Sample Id: 683463-007

Matrix: Soil
Date Collected: 01.05.2021 13:15

Date Received: 01.05.2021 15:17
Sample Depth: 0 - 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.06.2021 02:47	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.06.2021 02:47	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.06.2021 02:47	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	01.06.2021 02:47	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.06.2021 02:47	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.06.2021 02:47	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.06.2021 02:47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	01.06.2021 02:47		
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.06.2021 02:47		



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW16**
Lab Sample Id: 683463-008

Matrix: Soil
Date Collected: 01.05.2021 13:25

Date Received: 01.05.2021 15:17
Sample Depth: 0 - 6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	01.05.2021 20:16	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146828

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.05.2021 23:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	56.8	50.1	mg/kg	01.05.2021 23:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.05.2021 23:35	U	1
Total GRO-DRO	PHC628	56.8	50.1	mg/kg	01.05.2021 23:35		1
Total TPH	PHC635	56.8	50.1	mg/kg	01.05.2021 23:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	01.05.2021 23:35	
o-Terphenyl	84-15-1	104	%	70-135	01.05.2021 23:35	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW16**
Lab Sample Id: 683463-008

Matrix: Soil
Date Collected: 01.05.2021 13:25

Date Received: 01.05.2021 15:17
Sample Depth: 0 - 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.06.2021 03:09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.06.2021 03:09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.06.2021 03:09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.06.2021 03:09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.06.2021 03:09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.06.2021 03:09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.06.2021 03:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	01.06.2021 03:09	
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.06.2021 03:09	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW17**
Lab Sample Id: 683463-009

Matrix: Soil
Date Collected: 01.05.2021 13:35

Date Received: 01.05.2021 15:17
Sample Depth: 0 - 5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.1	9.94	mg/kg	01.05.2021 20:22		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146828

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.05.2021 23:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.05.2021 23:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.05.2021 23:55	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	01.05.2021 23:55	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.05.2021 23:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	01.05.2021 23:55	
o-Terphenyl	84-15-1	94	%	70-135	01.05.2021 23:55	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW17**
Lab Sample Id: 683463-009

Matrix: Soil
Date Collected: 01.05.2021 13:35

Date Received: 01.05.2021 15:17
Sample Depth: 0 - 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.06.2021 03:32	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.06.2021 03:32	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.06.2021 03:32	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.06.2021 03:32	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.06.2021 03:32	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.06.2021 03:32	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.06.2021 03:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	01.06.2021 03:32	
4-Bromofluorobenzene	460-00-4	126	%	70-130	01.06.2021 03:32	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW18**
Lab Sample Id: 683463-010

Matrix: Soil
Date Collected: 01.05.2021 11:15

Date Received: 01.05.2021 15:17
Sample Depth: 0 - 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	503	10.0	mg/kg	01.05.2021 20:28		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146828

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	107	49.9	mg/kg	01.06.2021 00:15		1
Diesel Range Organics (DRO)	C10C28DRO	864	49.9	mg/kg	01.06.2021 00:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	90.1	49.9	mg/kg	01.06.2021 00:15		1
Total GRO-DRO	PHC628	971	49.9	mg/kg	01.06.2021 00:15		1
Total TPH	PHC635	1060	49.9	mg/kg	01.06.2021 00:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	01.06.2021 00:15	
o-Terphenyl	84-15-1	108	%	70-135	01.06.2021 00:15	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW18**
Lab Sample Id: 683463-010

Matrix: Soil
Date Collected: 01.05.2021 11:15

Date Received: 01.05.2021 15:17
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.06.2021 03:54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.06.2021 03:54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.06.2021 03:54	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.06.2021 03:54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.06.2021 03:54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.06.2021 03:54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.06.2021 03:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.06.2021 03:54	
4-Bromofluorobenzene	460-00-4	111	%	70-130	01.06.2021 03:54	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW19**
Lab Sample Id: 683463-011

Matrix: Soil
Date Collected: 01.05.2021 11:25

Date Received: 01.05.2021 15:17
Sample Depth: 0 - 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146833

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	62.7	10.1	mg/kg	01.05.2021 20:34		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146828

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.06.2021 00:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.06.2021 00:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.06.2021 00:36	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	01.06.2021 00:36	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.06.2021 00:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	01.06.2021 00:36	
o-Terphenyl	84-15-1	116	%	70-135	01.06.2021 00:36	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW19**
Lab Sample Id: 683463-011

Matrix: Soil
Date Collected: 01.05.2021 11:25

Date Received: 01.05.2021 15:17
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.06.2021 09:19	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.06.2021 09:19	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.06.2021 09:19	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.06.2021 09:19	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.06.2021 09:19	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.06.2021 09:19	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.06.2021 09:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	01.06.2021 09:19		
1,4-Difluorobenzene	540-36-3	106	%	70-130	01.06.2021 09:19		



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW20**
Lab Sample Id: 683463-012

Matrix: Soil
Date Collected: 01.05.2021 11:35

Date Received: 01.05.2021 15:17
Sample Depth: 0 - 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146835

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	55.3	9.96	mg/kg	01.05.2021 21:10		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146828

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.06.2021 00:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.06.2021 00:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.06.2021 00:56	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	01.06.2021 00:56	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.06.2021 00:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	01.06.2021 00:56	
o-Terphenyl	84-15-1	106	%	70-135	01.06.2021 00:56	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW20**
Lab Sample Id: 683463-012

Matrix: Soil
Date Collected: 01.05.2021 11:35

Date Received: 01.05.2021 15:17
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:12

% Moisture:
Basis: Wet Weight

Seq Number: 3146825

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.05.2021 19:34	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.05.2021 19:34	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.05.2021 19:34	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.05.2021 19:34	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.05.2021 19:34	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.05.2021 19:34	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.05.2021 19:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.05.2021 19:34	
4-Bromofluorobenzene	460-00-4	92	%	70-130	01.05.2021 19:34	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW21**
Lab Sample Id: 683463-013

Matrix: Soil
Date Collected: 01.05.2021 11:45

Date Received: 01.05.2021 15:17
Sample Depth: 0 - 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146835

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	433	9.94	mg/kg	01.05.2021 21:28		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 01.05.2021 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3146828

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	63.9	49.9	mg/kg	01.06.2021 01:16		1
Diesel Range Organics (DRO)	C10C28DRO	326	49.9	mg/kg	01.06.2021 01:16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.06.2021 01:16	U	1
Total GRO-DRO	PHC628	390	49.9	mg/kg	01.06.2021 01:16		1
Total TPH	PHC635	390	49.9	mg/kg	01.06.2021 01:16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	01.06.2021 01:16	
o-Terphenyl	84-15-1	102	%	70-135	01.06.2021 01:16	



Certificate of Analytical Results 683463

WSP USA, Dallas, TX

PLU 15 TWR 104H

Sample Id: **SW21**
Lab Sample Id: 683463-013

Matrix: Soil
Date Collected: 01.05.2021 11:45

Date Received: 01.05.2021 15:17
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.05.2021 17:12

% Moisture:
Basis: Wet Weight

Seq Number: 3146825

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.05.2021 19:56	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.05.2021 19:56	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.05.2021 19:56	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.05.2021 19:56	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.05.2021 19:56	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.05.2021 19:56	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.05.2021 19:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	01.05.2021 19:56	
1,4-Difluorobenzene	540-36-3	97	%	70-130	01.05.2021 19:56	



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



WSP USA
PLU 15 TWR 104H

Analytical Method: Chloride by EPA 300

Seq Number: 3146833

MB Sample Id: 7718500-1-BLK

Matrix: Solid

LCS Sample Id: 7718500-1-BKS

Prep Method: E300P

Date Prep: 01.05.2021

LCSD Sample Id: 7718500-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	257	103	258	103	90-110	0	20	mg/kg	01.05.2021 17:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3146835

MB Sample Id: 7718501-1-BLK

Matrix: Solid

LCS Sample Id: 7718501-1-BKS

Prep Method: E300P

Date Prep: 01.05.2021

LCSD Sample Id: 7718501-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	257	103	90-110	0	20	mg/kg	01.05.2021 20:58	

Analytical Method: Chloride by EPA 300

Seq Number: 3146833

Parent Sample Id: 683459-001

Matrix: Soil

MS Sample Id: 683459-001 S

Prep Method: E300P

Date Prep: 01.05.2021

MSD Sample Id: 683459-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.94	199	197	99	198	99	90-110	1	20	mg/kg	01.05.2021 17:58	

Analytical Method: Chloride by EPA 300

Seq Number: 3146833

Parent Sample Id: 683463-002

Matrix: Soil

MS Sample Id: 683463-002 S

Prep Method: E300P

Date Prep: 01.05.2021

MSD Sample Id: 683463-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.94	199	205	103	204	102	90-110	0	20	mg/kg	01.05.2021 19:22	

Analytical Method: Chloride by EPA 300

Seq Number: 3146835

Parent Sample Id: 683463-012

Matrix: Soil

MS Sample Id: 683463-012 S

Prep Method: E300P

Date Prep: 01.05.2021

MSD Sample Id: 683463-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	55.3	200	262	103	264	104	90-110	1	20	mg/kg	01.05.2021 21:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3146835

Parent Sample Id: 683484-009

Matrix: Soil

MS Sample Id: 683484-009 S

Prep Method: E300P

Date Prep: 01.05.2021

MSD Sample Id: 683484-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	643	202	851	103	852	104	90-110	0	20	mg/kg	01.05.2021 22:39	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



WSP USA
PLU 15 TWR 104H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146828

MB Sample Id: 7718504-1-BLK

Matrix: Solid

LCS Sample Id: 7718504-1-BKS

Prep Method: SW8015P

Date Prep: 01.05.2021

LCSD Sample Id: 7718504-1-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	1150	115	1100	110	70-135	4	35	mg/kg	01.05.2021 17:13	
Diesel Range Organics (DRO)	<50.0	1000	1080	108	1170	117	70-135	8	35	mg/kg	01.05.2021 17:13	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		111		100		70-135	%	01.05.2021 17:13
o-Terphenyl	108		108		111		70-135	%	01.05.2021 17:13

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146828

Matrix: Solid

MB Sample Id: 7718504-1-BLK

Prep Method: SW8015P

Date Prep: 01.05.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.05.2021 16:53	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3146828

Matrix: Soil

Parent Sample Id: 683351-001

MS Sample Id: 683351-001 S

Prep Method: SW8015P

Date Prep: 01.05.2021

MSD Sample Id: 683351-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	941	94	1070	107	70-135	13	35	mg/kg	01.05.2021 18:13	
Diesel Range Organics (DRO)	<49.9	998	947	95	944	94	70-135	0	35	mg/kg	01.05.2021 18:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		115		70-135	%	01.05.2021 18:13
o-Terphenyl	122		110		70-135	%	01.05.2021 18:13

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146825

Matrix: Solid

MB Sample Id: 7718456-1-BLK

LCS Sample Id: 7718456-1-BKS

Prep Method: SW5035A

Date Prep: 01.05.2021

LCSD Sample Id: 7718456-1-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	0.0853	85	0.0926	93	70-130	8	35	mg/kg	01.05.2021 11:45	
Toluene	<0.00200	0.100	0.0825	83	0.0901	90	70-130	9	35	mg/kg	01.05.2021 11:45	
Ethylbenzene	<0.00200	0.100	0.0774	77	0.0841	84	71-129	8	35	mg/kg	01.05.2021 11:45	
m,p-Xylenes	<0.00400	0.200	0.157	79	0.171	86	70-135	9	35	mg/kg	01.05.2021 11:45	
o-Xylene	<0.00200	0.100	0.0782	78	0.0855	86	71-133	9	35	mg/kg	01.05.2021 11:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		95		97		70-130	%	01.05.2021 11:45
4-Bromofluorobenzene	87		84		89		70-130	%	01.05.2021 11:45

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
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



WSP USA
PLU 15 TWR 104H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146849

Matrix: Solid

Prep Method: SW5035A

Date Prep: 01.05.2021

MB Sample Id: 7718508-1-BLK

LCS Sample Id: 7718508-1-BKS

LCSD Sample Id: 7718508-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0978	98	0.0982	98	70-130	0	35	mg/kg	01.05.2021 17:51	
Toluene	<0.00200	0.100	0.0927	93	0.0906	91	70-130	2	35	mg/kg	01.05.2021 17:51	
Ethylbenzene	<0.00200	0.100	0.0971	97	0.0926	93	71-129	5	35	mg/kg	01.05.2021 17:51	
m,p-Xylenes	<0.00400	0.200	0.200	100	0.192	96	70-135	4	35	mg/kg	01.05.2021 17:51	
o-Xylene	<0.00200	0.100	0.0981	98	0.0966	97	71-133	2	35	mg/kg	01.05.2021 17:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		98		94		70-130	%	01.05.2021 17:51
4-Bromofluorobenzene	113		107		102		70-130	%	01.05.2021 17:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146825

Matrix: Soil

Prep Method: SW5035A

Date Prep: 01.05.2021

Parent Sample Id: 683349-001

MS Sample Id: 683349-001 S

MSD Sample Id: 683349-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.106	106	0.104	104	70-130	2	35	mg/kg	01.05.2021 20:19	
Toluene	<0.00200	0.0998	0.105	105	0.100	100	70-130	5	35	mg/kg	01.05.2021 20:19	
Ethylbenzene	<0.00200	0.0998	0.120	120	0.0924	93	71-129	26	35	mg/kg	01.05.2021 20:19	
m,p-Xylenes	<0.00399	0.200	0.198	99	0.188	94	70-135	5	35	mg/kg	01.05.2021 20:19	
o-Xylene	<0.00200	0.0998	0.0975	98	0.0933	93	71-133	4	35	mg/kg	01.05.2021 20:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		94		70-130	%	01.05.2021 20:19
4-Bromofluorobenzene	96		85		70-130	%	01.05.2021 20:19

Analytical Method: BTEX by EPA 8021B

Seq Number: 3146849

Matrix: Soil

Prep Method: SW5035A

Date Prep: 01.05.2021

Parent Sample Id: 683459-001

MS Sample Id: 683459-001 S

MSD Sample Id: 683459-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.119	118	0.118	118	70-130	1	35	mg/kg	01.05.2021 18:36	
Toluene	<0.00201	0.101	0.111	110	0.109	109	70-130	2	35	mg/kg	01.05.2021 18:36	
Ethylbenzene	<0.00201	0.101	0.116	115	0.114	114	71-129	2	35	mg/kg	01.05.2021 18:36	
m,p-Xylenes	<0.00402	0.201	0.240	119	0.237	119	70-135	1	35	mg/kg	01.05.2021 18:36	
o-Xylene	<0.00201	0.101	0.118	117	0.116	116	71-133	2	35	mg/kg	01.05.2021 18:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		102		70-130	%	01.05.2021 18:36
4-Bromofluorobenzene	109		110		70-130	%	01.05.2021 18:36

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 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



Chain of Custody

Work Order No: 16534103

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	slc@lien.com, dmoir@lien.com, kkenedy@lien.com

Program: ☒ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund State of Project:	
Reporting Level II	☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD	☐ ADAPT ☐ Other:

ANALYSIS REQUEST

Work Order Notes

Project Name:	PLU 15 TWR 104H	Turn Around	
Project Number:	TE012920150	Route	
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT	Temp Blank:	☒ Yes ☐ No	Wet Ice:	☒ Yes ☐ No
Temperature (°C):	30/2.8	Thermometer ID		
Received In tact:	☒ Yes ☐ No	Correction Factor:		
Cooler Custody Seals:	☒ Yes ☐ No	Total Containers:		
Sample Custody Seals:	☒ Yes ☐ No	18		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers												
SW13	S	1/05/2021	1200	2'	1	X	X	X	X								
SW13A	S	1/05/2021	1210	4'	1	X	X	X	X								
SW13B	S	1/05/2021	1220	6'	1	X	X	X	X								
SW14	S	1/05/2021	1230	2'	1	X	X	X	X								
SW14A	S	1/05/2021	1240	4'	1	X	X	X	X								
SW14B	S	1/05/2021	1250	6'	1	X	X	X	X								
SW15	S	1/05/2021	1315	0-6'	1	X	X	X	X								
SW16	S	1/05/2021	1325	0-6'	1	X	X	X	X								
SW17	S	1/05/2021	1335	0-5'	1	X	X	X	X								
SW18	S	1/05/2021	1115	0-3'	1	X	X	X	X								

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		1-5-21 1507			



Chain of Custody

Work Order No: 683463

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	slc@ltenv.com, dmoir@ltenv.com, kkennedy@ltenv.com

Program: UST/PST	☐ PRP	☐ Brownfields	☐ RRC	☐ Superfund
State of Project:				
Reporting Level II	☐ Level III	☐ ST/UST	☐ RRP	☐ Level IV
Deliverables: EDD	☐ ADAPT	Other:		

Project Name:	PLU 15 TWR 104H	Turn Around	
Project Number:	TE012920150	Routine	
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No	
Temperature (°C):	3.0 / 2.8	Thermometer ID					
Received Inact:	Yes	No	Correction Factor: 0.2				
Cooler Custody Seals:	Yes	No	Total Containers: 13				
Sample Custody Seals:	Yes	No					

Sample Identification					Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA 8015)	BTEX (EPA 8015)	Chloride (EPA 8015)	Sample Comments																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
SW19	S	1/05/2021	1125	0-3'	1	X	X	X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		1.5.21.15H			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.05.2021 03.17.00 PM

Work Order #: 683463

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#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)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.05.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.06.2021

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 19847

CONDITIONS OF APPROVAL

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland, TX79707		OGRID: 5380	Action Number: 19847	Action Type: C-141
OCD Reviewer	Condition			
chensley	At this time, OCD approves this request. The Final Report C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue.			