

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	NRM2028336147
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 32.15563 Longitude -103.78444
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 303 CTB	Site Type Central Tank Battery
Date Release Discovered 9/26/2020	API# (if applicable)

Unit Letter	Section	Township	Range	County
N	4	25S	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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 260.43	Volume Recovered (bbls) 260
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release A valve failed to open causing the flange gasket to fail releasing fluids into lined containment and onto ground surface.
A third party contractor will be retained for all remediation activities.

Form C-141

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Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? A release of fluids greater than 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, by Kyle Littrell to 'Bratcher, Mike, EMNRD'; 'Hamlet, Robert, EMNRD'; 'Venegas, Victoria, EMNRD'; 'Griswold, Jim, EMNRD'; 'BLM_NM_CFO_Spill@blm.gov'; 'Morgan, Crisha A' on Sunday, September 27, 2020 10:17 AM via email.	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> 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: Kyle Littrell Signature:  email: Kyle.Littrell@xtoenergy.com	Title: SH&E Supervisor Date: 10-9-20 Telephone: 432-221-7331
OCD Only Received by: Ramona Marcus Date: 10/09/2020	

NRM2028336147

Location:	PLU 303 CTB	
Spill Date:	9/26/2020	
Area 1		
Approximate Area =	166.00	sq. ft.
Average Saturation (or depth) of spill =	5.00	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Produced Water =	0.37	bbls
Area 2		
Approximate Area =	1128.00	sq. ft.
Average Saturation (or depth) of spill =	0.13	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Produced Water =	0.06	bbls
Area 3		
Approximate Area =	1459.80	cu. ft.
Average Saturation (or depth) of spill =	0.00	inches
Average Porosity Factor =	0.00	
VOLUME RECOVERED		
Total Produced Water =	260.00	bbls
TOTAL VOLUME OF LEAK		
Total Produced Water =	260.43	bbls
TOTAL VOLUME RECOVERED		
Total Produced Water =	260.00	bbls

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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?	>100 _____ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

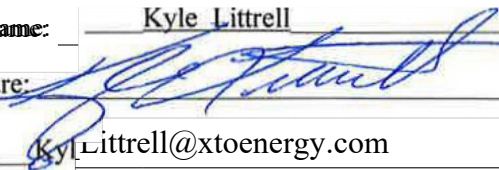
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods,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

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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: 12/17/2020
email: Kyl.Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: Cristina Eads Date: 12/23/2020

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Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Kyle Littrell

Title: SH&E Supervisor

Signature: 

Date: 12/17/2020

email: Kyle_Littrell@xtoenergy.com

Telephone: 432-221-7331

OCD Only

Received by: Cristina Eads

Date: 12/23/2020

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

Closure Approved by: 

Date: 04/08/2021

Printed Name: Cristina Eads

Title: Environmental Specialist



WSP USA

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

December 21, 2020

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

**RE: Closure Request
PLU 303 CTB
Incident Number NRM2028336147
Eddy County, New Mexico**

To Whom it May Concern:

WSP USA Inc. (WSP). (formerly LT Environmental, Inc.), on behalf of XTO Energy, Inc. (XTO), is pleased to present the following Closure Request detailing site assessment, soil sampling, and excavation activities at the Poker Lake Unit (PLU) 303 CTB (Site) in Unit N, Section 4, Township 25 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 produced water at the Site. Based on the excavation activities and results of the soil sampling events, XTO is submitting this Closure Request, describing remediation that has occurred and requesting no further action (NFA) for Incident Number NRM2028336147.

RELEASE BACKGROUND

On September 26, 2020, a valve failed to open causing the flange gasket to fail and resulting in the release of 260.43 barrels (bbls) of produced water onto the well pad. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids, approximately 260 bbls of produced water were recovered. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on September 27, 2020. A Release Notification and Corrective Action Form (Form C-141) was submitted on October 9, 2020 and was assigned Incident Number NRM2028336147.

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 United States Geologic Survey (USGS) well 321034103465501, located approximately 1.5 miles north of the Site. The groundwater well has a reported depth to groundwater of 474 feet bgs and a total depth of 740 feet bgs. Within a 3-



mile radius there are 6 groundwater wells that indicate regional depth to water is greater than 350 feet bgs. The second closest groundwater well with data is USGS well 320952103444401, located approximately 2.4 miles northeast of the Site. The groundwater well has a reported depth to groundwater of 406 feet bgs and the total depth is unknown, depth to water was last measured in January 1998. The closest New Mexico Office of the State Engineer (NMOSE) groundwater well is C-03891, located 2.5 miles west of the Site. The groundwater well has a reported depth to groundwater of 429 feet bgs and a total depth of 635 feet bgs, depth to water was most recently measured in November 2015.

During October 2020, in an effort to confirm depth to water in the area, a borehole (C-4479) was advanced to a depth of 110 feet bgs via truck-mounted hollow stem auger. The borehole was located approximately 3,585 feet northwest of the Site. The location of borehole BH01 (C-4479) is provided on Figure 1. A WSP geologist logged and described soils continuously. The borehole lithologic/soil sampling log is included in Attachment 1. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. On October 13, 2020, 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 utilizing hydrated bentonite chips. All wells used for depth to groundwater determination are depicted on Figure 1 and the associated well records are included in Attachment 1. Depth to water data are available in every direction surrounding the Site and indicate depth to water is greater than 100 feet. The available data consistently exceed 300 feet and 400 feet in depth, with no data points less than 318 feet.

The closest continuously flowing water or significant watercourse to the Site is an emergent wetland, located approximately 1 mile 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 NMOC 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 1, 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 three preliminary assessment soil samples (SS01 through SS03) within the release extent, from a depth of approximately 0.5 feet bgs to assess the lateral extent of impacted soil. Soil from the preliminary soil samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization 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) and are presented on Figure 2.

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, and 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 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in preliminary soil samples SS01 and SS02. Laboratory analytical results indicated that chloride concentrations exceeded the Closure Criteria in preliminary soil sample SS03. 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.

DELINEATION AND EXCAVATION SOIL SAMPLING ACTIVITIES

Between October 26, 2020 and November 24, 2020, WSP personnel were at the Site to oversee delineation and excavation activities as indicated by visual observations, field screening activities, and laboratory analytical results for the preliminary soil samples.

Boreholes BH01 through BH07 were advanced via hand auger to depths ranging from 1 foot to 4 feet bgs within and around the release extent to assess the lateral and vertical extent of impacted soil. Delineation soil samples were collected from each borehole from depths ranging from 1 foot to 4 feet bgs. Soil from the boreholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each borehole were logged on lithologic/soil sampling logs, which are included in Attachment 2. The boreholes and delineation soil sample locations are presented on Figure 3. The delineation soil samples were collected, handled, and analyzed as described



above at Xenco in Carlsbad, New Mexico. Photographic documentation was conducted during the Site visits. A photographic log is included in Attachment 3.

Based on field screening activities and laboratory analytical results for the preliminary and delineation soil samples, excavation activities were completed to remove the impacted soil. Excavation activities were performed using track-mounted backhoe and transport vehicle. To direct excavation activities, LTE screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. The excavation was completed to depths ranging from 0.5 feet to 1 foot bgs. Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the 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 FS12, FS01A, FS05A, FS06A, FS09A, and FS12A were collected from the floor of the excavation. The floor samples were collected from depths ranging from 0.5 feet to 1 foot bgs. Due to the shallow depth of the excavation, the floor samples were also representative of the excavation sidewalls. The excavation soil samples were collected, handled, and analyzed as described above. The excavation extent and excavation soil sample locations are presented on Figure 4.

The final excavation extent measured approximately 2,300 square feet. A total of approximately 63 cubic yards of impacted soil were removed during excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility located in Hobbs, New Mexico. After the completion of confirmation sampling, the excavation was secured with fencing.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples SS01 and SS02 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for preliminary soil sample SS03 indicated that chloride concentrations exceeded the Closure Criteria.

Laboratory analytical results for the delineation soil samples collected from boreholes BH01 through BH07 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

Laboratory analytical results for excavation floor samples FS01A, FS02, FS03, FS04, FS05A, FS06A, FS07, FS08, FS09A, FS10, FS11, and FS12A, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for excavation floor samples FS01, FS05, FS06, FS09, and FS12 indicated that chloride concentrations initially exceeded the Closure Criteria. Additional soil was removed from these areas and subsequent floor samples FS01A, FS05A,

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FS06A, FS09A, and FS12A were compliant. The laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Attachment 4.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the September 26, 2020 release of produced water. Based on the laboratory analytical results for the preliminary soil samples, impacted soil was excavated. Laboratory analytical results for excavation soil samples collected from the final excavation extent indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria. Results from excavation confirmation samples concluded that all impacted soil was removed. Additional samples were collected outside of the release footprint and results confirmed the extent of the release as mapped and excavated. Based on the excavation soil sample analytical results, no further remediation was required. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. As such, XTO respectfully requests NFA for Incident Number NRM2028336147.

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

Sincerely,

WSP USA Inc.

A handwritten signature in black ink that reads 'Elizabeth Naka'.

Elizabeth Naka
Assistant Consultant, Environmental Scientist

A handwritten signature in black ink that reads 'Ashley L. Ager'.

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

cc: Kyle Littrell, XTO
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD
Jim Amos, Bureau of Land Management

Attachments:

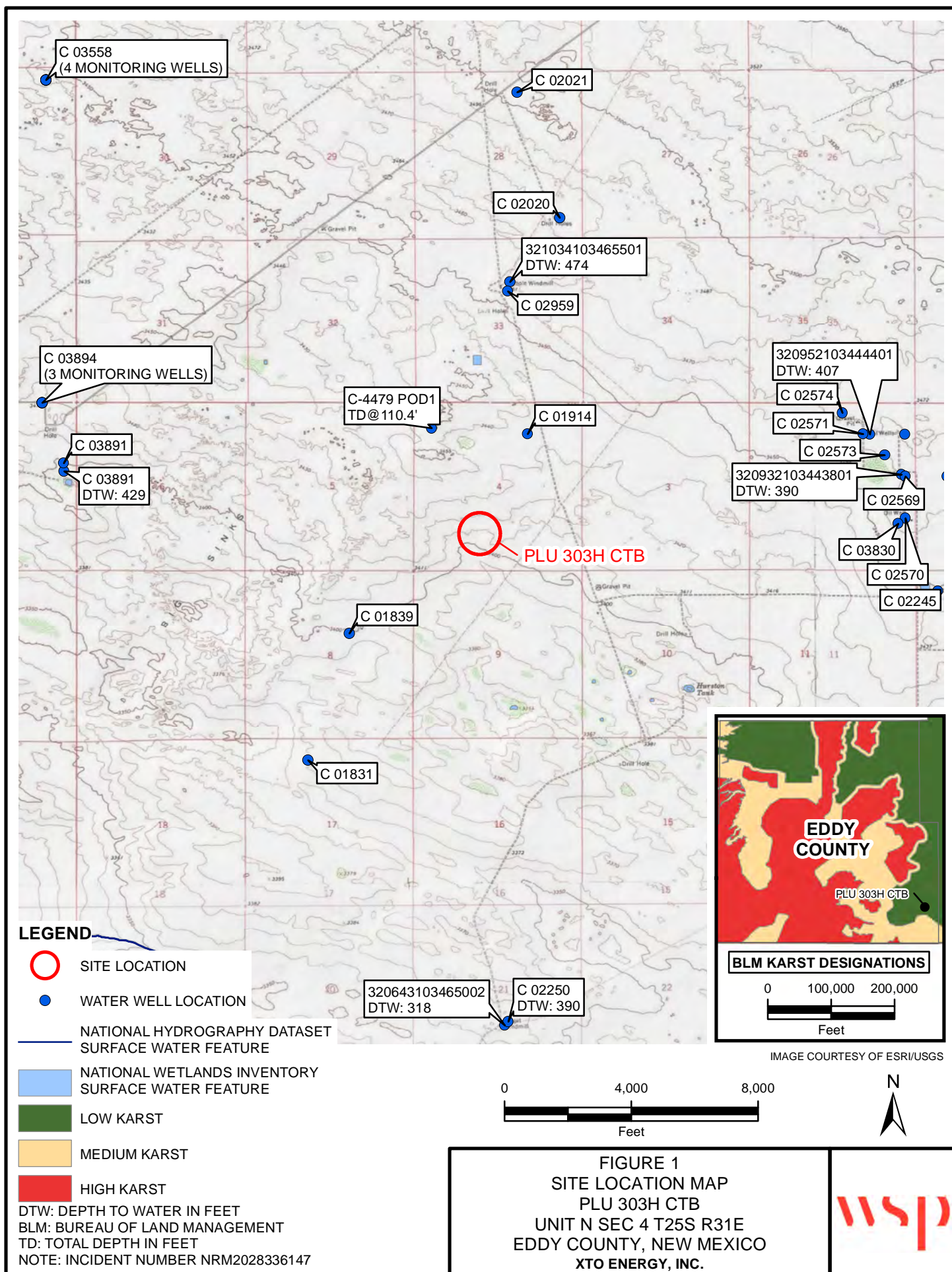
Figure 1 Site Location Map
Figure 2 Preliminary Soil Sample Locations



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

FIGURES



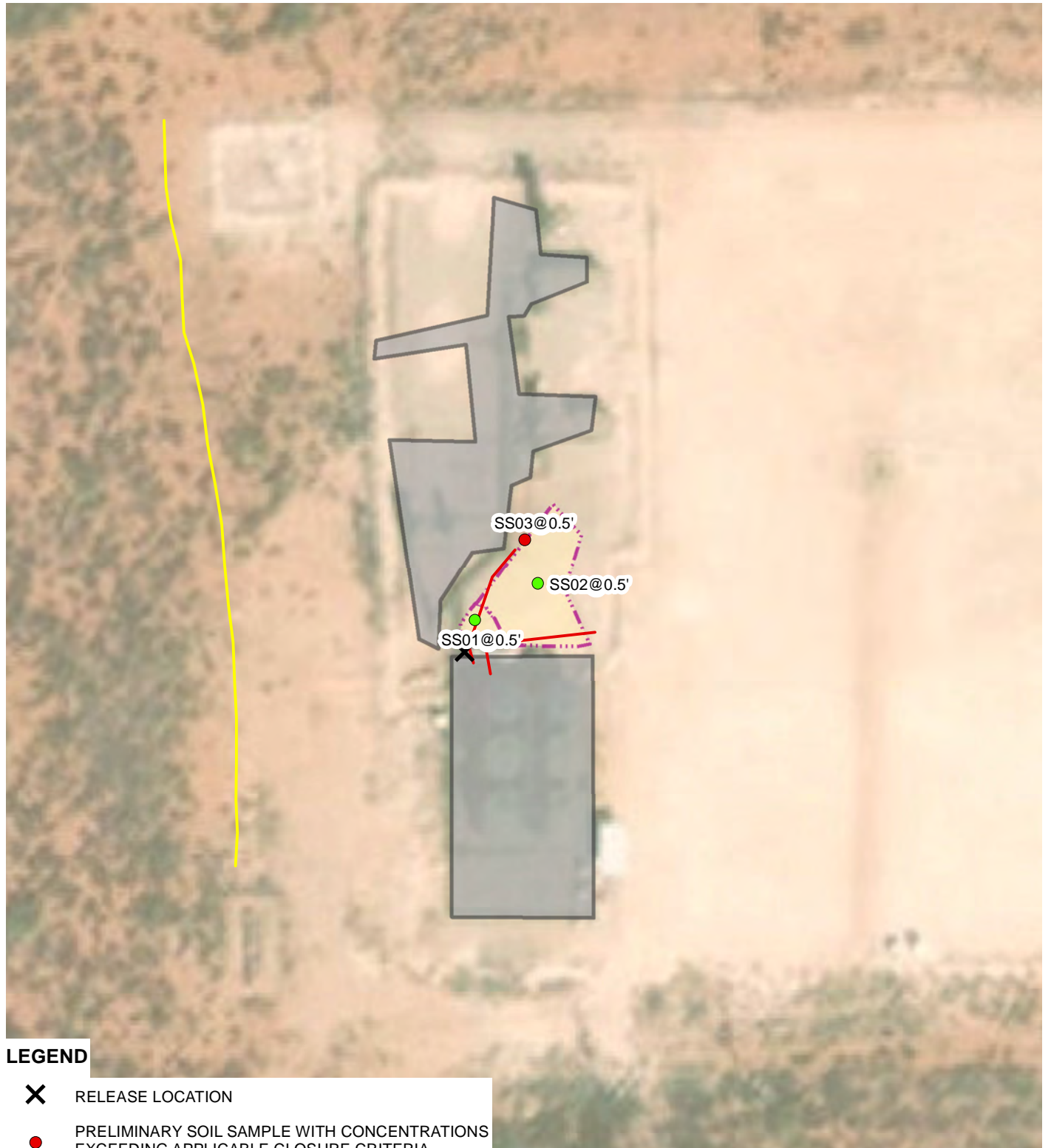


IMAGE COURTESY OF ESRI

LEGEND

RELEASE LOCATION



PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA



PRELIMINARY SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

— ELECTRIC LINE

— GAS LINE



RELEASE EXTENT



INFRASTRUCTURE

NOTE: INCIDENT NUMBER NRM2028336147

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

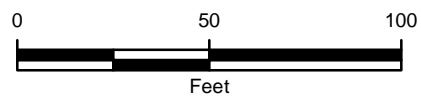
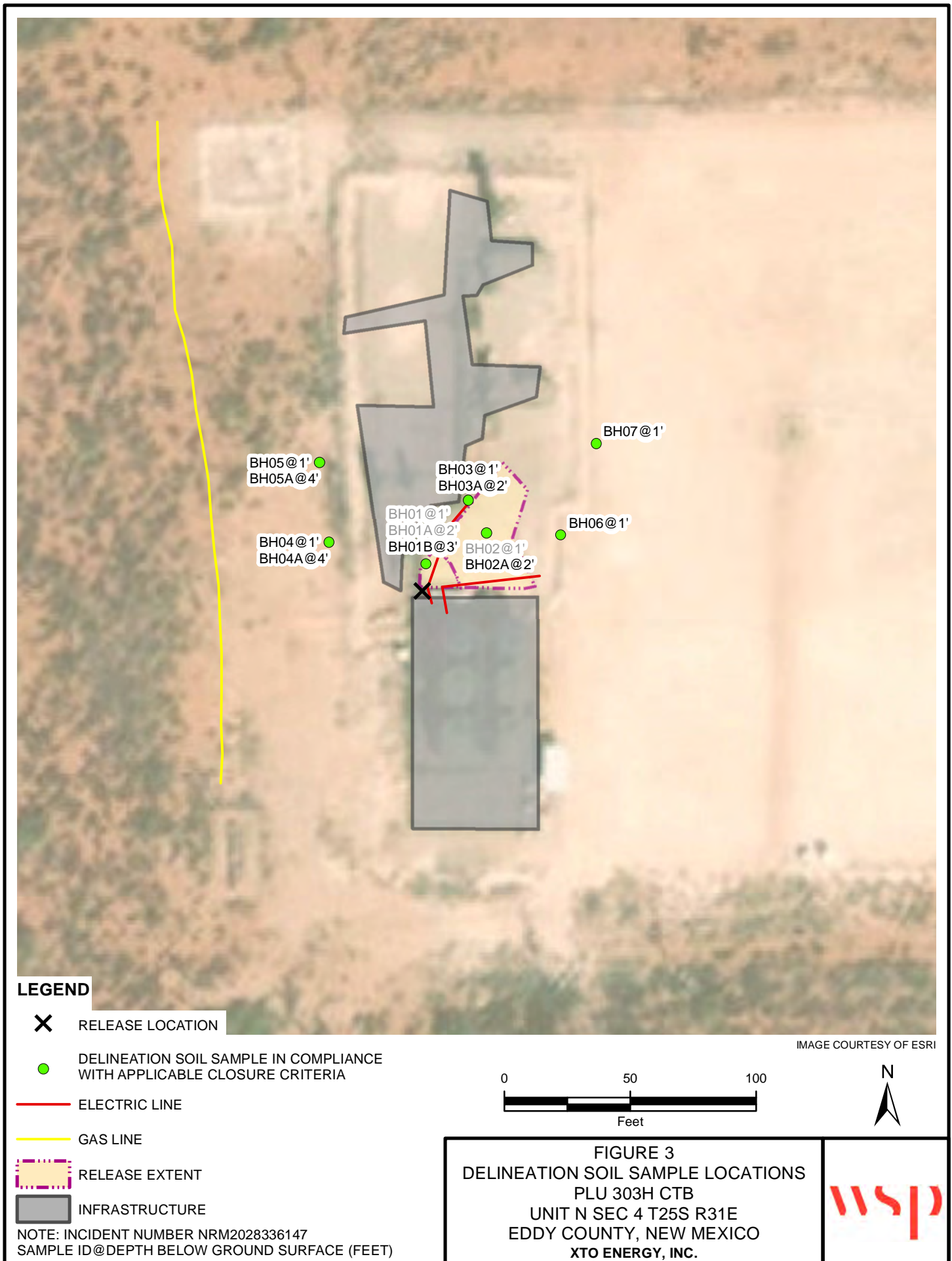
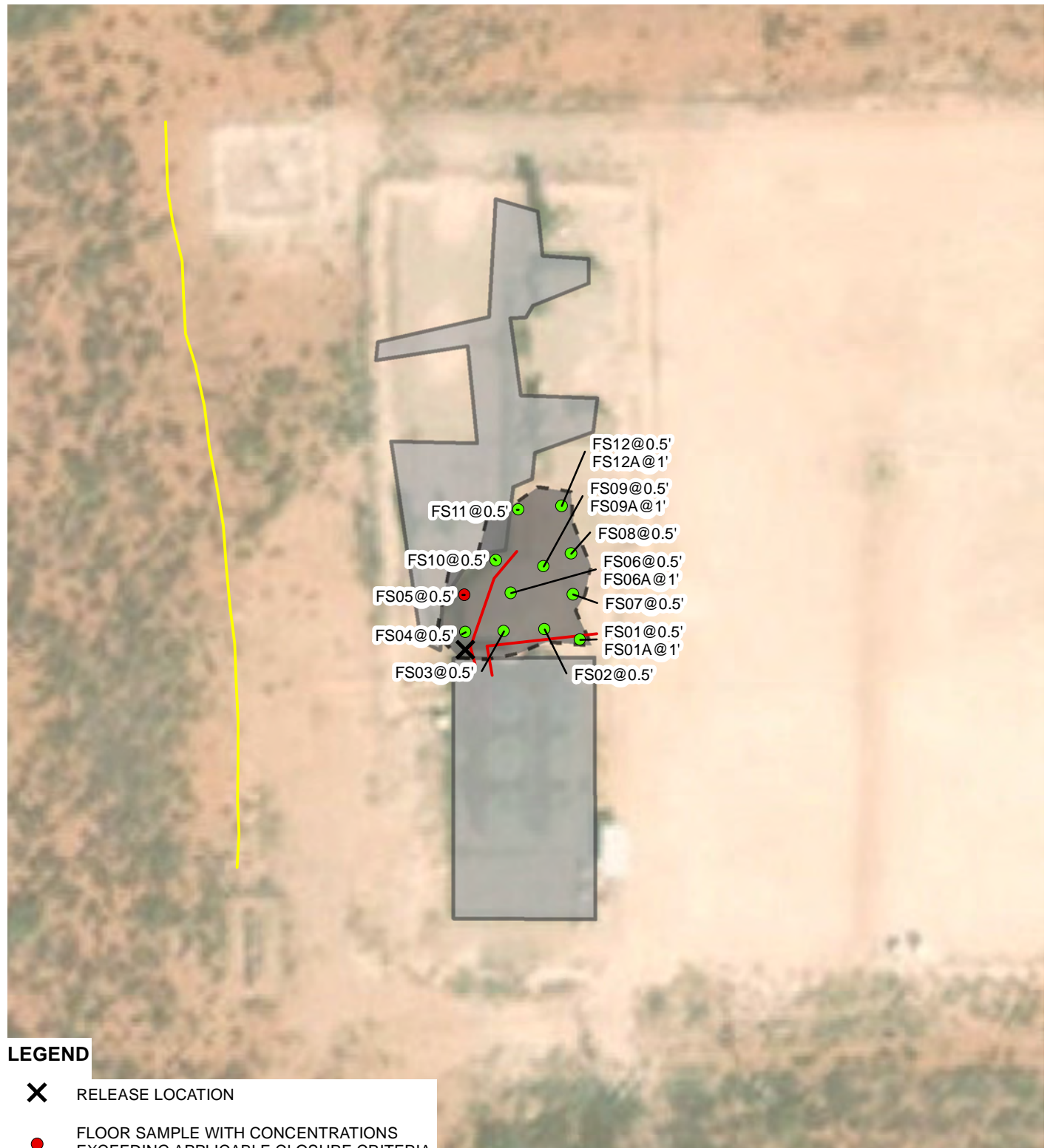


FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
 PLU 303H CTB
 UNIT N SEC 4 T25S R31E
 EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.





P:\XTO Energy\GIS\MXD\012920144_PLU 303H CTB\012920144_FIG03_DELINEATION_2020.mxd

**LEGEND**

RELEASE LOCATION



FLOOR SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA



FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA



ELECTRIC LINE



GAS LINE



EXCAVATION EXTENT



INFRASTRUCTURE

NOTE: INCIDENT NUMBER NRM2028336147
 SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

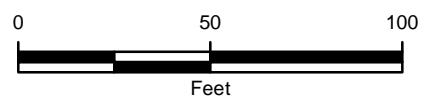


FIGURE 4
 EXCAVATION SOIL SAMPLE LOCATIONS
 POKER LAKE UNIT 303H CTB
 UNIT N SEC 4 T25S R31E
 EDDY COUNTY, NEW MEXICO
 XTO ENERGY, INC.



TABLES

Table 1

Soil Analytical Results
PLU 303 CTB
Incident Number NRM2028336147
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	10/01/2020	0.5	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	15,900
SS02	10/01/2020	0.5	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	15,300
SS03	10/01/2020	0.5	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	21,000
Delineation Samples										
BH01	10/26/2020	1	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	5,580
BH01A	10/26/2020	2	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	4,390
BH01B	11/02/2020	3	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	49.8
BH02	10/26/2020	1	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	196
BH02A	10/26/2020	2	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	69.9
BH03	10/26/2020	1	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	71.8
BH03A	10/26/2020	2	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	57.8
BH04	10/26/2020	1	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	<9.98
BH04A	10/26/2020	4	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	88.4
BH05	10/26/2020	1	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	23.5
BH05A	10/26/2020	4	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	61.2
BH06	10/26/2020	1	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	17.1
BH07	10/26/2020	1	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	24.8
Excavation Floor Samples										
FS01	10/26/2020	0.5	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	35,900
FS01A	11/02/2020	1	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	5,710
FS02	10/26/2020	0.5	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	5,930

Table 1

Soil Analytical Results
 PLU 303 CTB
 Incident Number NRM2028336147
 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
FS03	10/26/2020	0.5	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	12,300
FS04	10/26/2020	0.5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	18,100
FS05	10/26/2020	0.5	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	20,000
FS05A	11/24/2020	1	<0.00200	<0.002000	<49.8	<49.8	<49.8	<49.80	<49.80	3,860
FS06	10/26/2020	0.5	<0.0000198	<0.0000198	<50.3	<50.3	<50.3	<50.3	<50.3	21,000
FS06A	11/02/2020	1	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	4,900
FS07	10/26/2020	0.5	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	2,270
FS08	10/26/2020	0.5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	1,820
FS09	10/26/2020	0.5	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	22,300
FS09A	11/02/2020	1	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	8,810
FS10	10/26/2020	0.5	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	19,400
FS11	10/26/2020	0.5	<0.00200	<0.00200	81.2	<49.9	<49.9	81.2	81.2	16,400
FS12	10/26/2020	0.5	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	20,300
FS12A	11/02/2020	1	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	2,500

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

Text

impacts to soil have been removed

ATTACHMENT 1: REFERENCED WELL RECORD



WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:

C-4479 POD 1

Date:

10/8/2020

Site Name:

PLU 147

RP or Incident Number:

NRM2004445859

LTE Job Number: TE012920024

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: WM

Method: HAS

Lat/Long:

32.164634, -103.789456

Field Screening:

Chloride, PID

Hole Diameter:

8 1/4'

Total Depth:

110.4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SWSC	SAND, dry, red-brown, medium grained, well graded, few clay, no stain, no odor
						4	CCHE	CALICHE/with gravel, dry, tan-brown, poorly consolidated, no stain, no odor
						10		
						20	SWSM	SAND, moist, red-brown, some silt, well graded, medium grained, no stain, no odor
						24	CL	CLAY, moist, maroon, cohesive, high plasticity, trace sand, no stain, no odor
						30		
						35	SPSC	SAND, moist, red, fine grained, poorly graded, some clay, no stain, no odor
						40	SWSM	SAND, moist, brown-red, large grained, well graded, few silt, no stain, no odor
						50		
						54	SWSC	SAND, moist, brown-red, medium grained, well graded, some clay, no odor, no stain
						60		
						70		
						80	SWSC	grain size shift to large
						90	SWSC	caliche fragments present
						100		
						110		



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National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater



Geographic Area:

United States



GO

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- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- **NOTICE 09-08-2020: The [NWIS Mapper](#) is experiencing intermittent issues. Developers are looking into the problem. Thank you for your patience.**
- [Full News](#)

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 321034103465501

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 321034103465501 24S.31E.33.231113

Available data for this site

Groundwater: Field measurements



GO

Eddy County, New Mexico

Hydrologic Unit Code 13070001

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

Land-surface elevation 3,461.00 feet above NGVD29

The depth of the well is 740 feet below land surface.

This well is completed in the Rustler Formation (312RSLR) local aquifer.

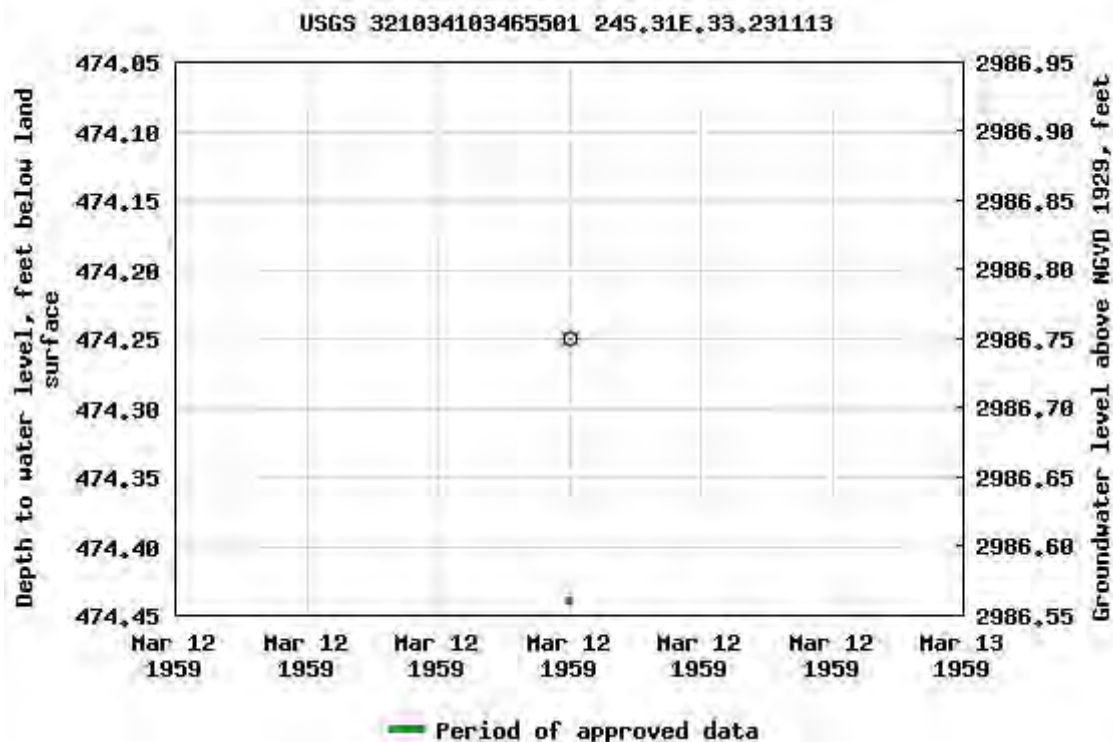
Output formats

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[Graph of data](#)

[Reselect period](#)



Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>

Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2020-09-30 18:33:35 EDT

0.7 0.59 nadww01





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**
C 03891 POD1

Q64 Q16 Q4 Sec TwS Rng **X** **Y**
4 4 2 01 25S 30E 610608 3558890 

x

Driller License: 1723**Driller Company:** SBQ2, LLC DBA STEWART BROTHERS DRILLING CO.**Driller Name:****Drill Start Date:** 11/10/2015**Drill Finish Date:** 11/14/2015**Plug Date:****Log File Date:** 12/04/2015**PCW Rcv Date:****Source:** Shallow**Pump Type:****Pipe Discharge Size:****Estimated Yield:** 33 GPM**Casing Size:** 6.13**Depth Well:** 635 feet**Depth Water:** 429 feet

x

Water Bearing Stratifications:**Top Bottom Description**

420	450	Sandstone/Gravel/Conglomerate
450	460	Sandstone/Gravel/Conglomerate
460	490	Sandstone/Gravel/Conglomerate
490	500	Sandstone/Gravel/Conglomerate
500	530	Sandstone/Gravel/Conglomerate
530	635	Sandstone/Gravel/Conglomerate

x

Casing Perforations:**Top Bottom**

460	635
-----	-----


x


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.


12/17/20 7:29 AM


POINT OF DIVERSION SUMMARY


ATTACHMENT 2: LITHOLOGIC/SAMPLING LOG


 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220					BH or PH Name:		Date:		
					BH01		10/26/20 - 11/02/20		
					Site Name:		Poker Lake Unit 303H CTB		
					RP or Incident Number:		NRM2028336147		
					LTE Job Number:		12920144		
LITHOLOGIC / SOIL SAMPLING LOG					Logged By TC and EN		Method: Hand Auger		
Lat/Long:			Field Screening:			Hole Diameter:		Total Depth:	
			Chloride, PID					3'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
M	7,227	0.0	N	BH01		0			
M	6,136	0.0	N	BH01A		1	SU/SP	Tan/brown, moist, sandy/caliche	
M	<180	0.0	N	BH01B		2	SP/SC	Red-brown, moist	
						3		brown sand, moist TD @ 3'	


 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220					BH or PH Name:		Date:		
					BH02		10/26/2020		
					Site Name:		Poker Lake Unit 303H CTB		
					RP or Incident Number:		NRM2028336147		
					LTE Job Number:		12920144		
LITHOLOGIC / SOIL SAMPLING LOG					Logged By TC		Method: Hand Auger		
Lat/Long:			Field Screening:			Hole Diameter:		Total Depth:	
			Chloride, PID					2'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
M	207	0.0	N	BH02		0			
M	168	0.0	N	BH02A		1	SW/SP	Tan/brown, moist, sandy/caliche	
						2	SP/SC	Red-brown, moist, sandy TD @ 2' bgs	

 <div>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</div>				BH or PH Name: BH03		Date: 10/26/2020			
				Site Name: Poker Lake Unit 303H CTB					
				RP or Incident Number: NRM2028336147					
				LTE Job Number: 12920144					
LITHOLOGIC / SOIL SAMPLING LOG						Logged By TC		Method: Hand Auger	
Lat/Long:			Field Screening: Chloride, PID			Hole Diameter:		Total Depth: 2'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
M	672	0.0	N	BH03		0			
M	425	0.0	N	BH03A		1	SW/SP	Tan/brown, moist, sandy/caliche	
						2	SP/SC	Red-brown, moist, sandy TD @ 2' bgs	

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220					BH or PH Name:		Date:		
					BH04		10/26/2020		
					Site Name:		Poker Lake Unit 303H CTB		
					RP or Incident Number:		NRM2028336147		
					LTE Job Number:		12920144		
LITHOLOGIC / SOIL SAMPLING LOG					Logged By TC		Method: Hand Auger		
Lat/Long:			Field Screening:			Hole Diameter:		Total Depth:	
			Chloride, PID					4'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0			
M	168	0.0	N	BH04		1	SP/SC	Reddish brown, moist, sandy	
M	168	0.0	N			2	SP/SC	Same as above (SAA)	
M	168	0.0	N			3	SP/SC	SAA	
M	207	0.0	N	BH04A		4	SP/SC	SAA	
								TD @ 4' bgs	

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220					BH or PH Name:		Date:	
					BH05		10/26/2020	
					Site Name:		Poker Lake Unit 303H CTB	
					RP or Incident Number:		NRM2028336147	
					LTE Job Number:		12920144	
LITHOLOGIC / SOIL SAMPLING LOG					Logged By TC		Method: Hand Auger	
Lat/Long:			Field Screening:		Hole Diameter:		Total Depth:	
			Chloride, PID				4'	
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	168	0.0	N	BH05		1	SW/SP	Reddish brown, tan, dry, sandy/gravel
D	207	0.0	N			2	SW/SP	Same as above (SAA)
D/M	207	0.0	N			3	SP/SC	Reddish brown, dry top, moist bottom, sandy
M	240	0.0	N	BH05A		4	SP/SC	Reddish brown, moist, sandy TD @ 4' bgs

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name:		Date:				
		BH06		10/26/2020				
		Site Name:		Poker Lake Unit 303H CTB				
		RP or Incident Number:		NRM2028336147				
		LTE Job Number:		12920144				
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:		Field Screening:		Logged By TC				
		Chloride, PID		Method: Hand Auger				
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D/M	207	0.0	N	BH06		0	SW/SP	tan/brown, dry and moist, sandy
						1		TD @ 1' bgs

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220					BH or PH Name:		Date:		
					BH07		10/26/2020		
					Site Name:		Poker Lake Unit 303H CTB		
					RP or Incident Number:		NRM2028336147		
					LTE Job Number:		12920144		
LITHOLOGIC / SOIL SAMPLING LOG					Logged By TC		Method: Hand Auger		
Lat/Long:			Field Screening:			Hole Diameter:		Total Depth:	
			Chloride, PID					1'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
D/M	285	0.0	N	BH07		0 1	SW/SP	tan/brown, dry and moist, sandy/gravel TD @ 1' bgs	

ATTACHMENT 3: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG		
XTO Energy	PLU 303 CTB Eddy County, New Mexico	NRM2028336147


Photo No.	Date	
1	October 1, 2020	
View of staining on pad facing West.		

Photo No.	Date	
2	October 1, 2020	
View of staining on pad facing Northwest.		



PHOTOGRAPHIC LOG		
XTO Energy	PLU 303 CTB Eddy County, New Mexico	NRM2028336147

Photo No.	Date	
3	October 26, 2020	
View of excavation facing Southwest.		

Photo No.	Date	
4	November 2, 2020	
View of further excavation around FS06, FS09, and FS12 facing South.		

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

Certificate of Analysis Summary 674085

LT Environmental, Inc., Arvada, CO

Project Name: PLU 303 H CTB

Project Id: 012920144

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Thu 10.01.2020 11:33


Report Date: 10.07.2020 10:31

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	674085-001	674085-002	674085-003			
	Field Id:	SS01	SS02	SS03			
	Depth:	0.5-	0.5-	0.5-			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	10.01.2020 09:25	10.01.2020 09:30	10.01.2020 09:35			
BTEX by EPA 8021B	Extracted:	10.02.2020 10:14	10.02.2020 10:14	10.02.2020 10:14			
	Analyzed:	10.02.2020 20:30	10.02.2020 20:53	10.02.2020 21:15			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202			
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202			
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202			
m,p-Xylenes		<0.00400 0.00400	<0.00399 0.00399	<0.00404 0.00404			
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202			
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202			
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202			
Chloride by EPA 300	Extracted:	10.02.2020 14:20	10.02.2020 14:20	10.02.2020 14:20			
	Analyzed:	10.02.2020 17:28	10.02.2020 17:34	10.02.2020 17:39			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		15900 200	15300 198	21000 200			
TPH by SW8015 Mod	Extracted:	10.02.2020 10:00	10.02.2020 10:00	10.02.2020 10:00			
	Analyzed:	10.02.2020 16:06	10.02.2020 16:26	10.02.2020 16:54			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<50.3 50.3	<49.8 49.8			
Diesel Range Organics (DRO)		<50.1 50.1	<50.3 50.3	<49.8 49.8			
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.3 50.3	<49.8 49.8			
Total GRO-DRO		<50.1 50.1	<50.3 50.3	<49.8 49.8			
Total TPH		<50.1 50.1	<50.3 50.3	<49.8 49.8			

BRL - Below Reporting Limit

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





Analytical Report 674085

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 303 H CTB

012920144

10.07.2020

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: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



10.07.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **674085**

PLU 303 H CTB

Project Address: Eddy County

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) 674085. 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. 674085 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 674085

LT Environmental, Inc., Arvada, CO

PLU 303 H CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	10.01.2020 09:25	0.5	674085-001
SS02	S	10.01.2020 09:30	0.5	674085-002
SS03	S	10.01.2020 09:35	0.5	674085-003



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 303 H CTB

Project ID: 012920144
Work Order Number(s): 674085

Report Date: 10.07.2020
Date Received: 10.01.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 674085

LT Environmental, Inc., Arvada, CO

PLU 303 H CTB

Sample Id: **SS01** Matrix: Soil Date Received: 10.01.2020 11:33
 Lab Sample Id: 674085-001 Date Collected: 10.01.2020 09:25 Sample Depth: 0.5
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.02.2020 14:20 % Moisture:
 Seq Number: 3138826 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15900	200	mg/kg	10.02.2020 17:28		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH
 Analyst: DTH Date Prep: 10.02.2020 10:00 % Moisture:
 Seq Number: 3138732 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.02.2020 16:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.02.2020 16:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.02.2020 16:06	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.02.2020 16:06	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.02.2020 16:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	10.02.2020 16:06	
o-Terphenyl	84-15-1	99	%	70-135	10.02.2020 16:06	



Certificate of Analytical Results 674085

LT Environmental, Inc., Arvada, CO

PLU 303 H CTB

Sample Id: **SS01**
Lab Sample Id: 674085-001

Matrix: Soil
Date Collected: 10.01.2020 09:25

Date Received: 10.01.2020 11:33
Sample Depth: 0.5

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:14

% Moisture:
Basis: Wet Weight

Seq Number: 3138758

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.02.2020 20:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.02.2020 20:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.02.2020 20:30	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.02.2020 20:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.02.2020 20:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.02.2020 20:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.02.2020 20:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	10.02.2020 20:30	
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.02.2020 20:30	



Certificate of Analytical Results 674085

LT Environmental, Inc., Arvada, CO

PLU 303 H CTB

Sample Id: **SS02** Matrix: Soil Date Received: 10.01.2020 11:33
 Lab Sample Id: 674085-002 Date Collected: 10.01.2020 09:30 Sample Depth: 0.5
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.02.2020 14:20 % Moisture:
 Seq Number: 3138826 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15300	198	mg/kg	10.02.2020 17:34		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH
 Analyst: DTH Date Prep: 10.02.2020 10:00 % Moisture:
 Seq Number: 3138732 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	10.02.2020 16:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	10.02.2020 16:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	10.02.2020 16:26	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	10.02.2020 16:26	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	10.02.2020 16:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	10.02.2020 16:26	
o-Terphenyl	84-15-1	96	%	70-135	10.02.2020 16:26	



Certificate of Analytical Results 674085

LT Environmental, Inc., Arvada, CO

PLU 303 H CTB

Sample Id: **SS02**
Lab Sample Id: 674085-002

Matrix: Soil
Date Collected: 10.01.2020 09:30

Date Received: 10.01.2020 11:33
Sample Depth: 0.5

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:14

% Moisture:
Basis: Wet Weight

Seq Number: 3138758

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.02.2020 20:53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.02.2020 20:53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.02.2020 20:53	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.02.2020 20:53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.02.2020 20:53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.02.2020 20:53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.02.2020 20:53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.02.2020 20:53		
4-Bromofluorobenzene	460-00-4	93	%	70-130	10.02.2020 20:53		



Certificate of Analytical Results 674085

LT Environmental, Inc., Arvada, CO

PLU 303 H CTB

Sample Id: **SS03** Matrix: Soil Date Received: 10.01.2020 11:33
 Lab Sample Id: 674085-003 Date Collected: 10.01.2020 09:35 Sample Depth: 0.5
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.02.2020 14:20 % Moisture:
 Seq Number: 3138826 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21000	200	mg/kg	10.02.2020 17:39		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH
 Analyst: DTH Date Prep: 10.02.2020 10:00 % Moisture:
 Seq Number: 3138732 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.02.2020 16:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.02.2020 16:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.02.2020 16:54	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.02.2020 16:54	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.02.2020 16:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	10.02.2020 16:54	
o-Terphenyl	84-15-1	102	%	70-135	10.02.2020 16:54	



Certificate of Analytical Results 674085

LT Environmental, Inc., Arvada, CO

PLU 303 H CTB

Sample Id: **SS03**
Lab Sample Id: 674085-003

Matrix: Soil
Date Collected: 10.01.2020 09:35

Date Received: 10.01.2020 11:33
Sample Depth: 0.5

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:14

% Moisture:
Basis: Wet Weight

Seq Number: 3138758

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.02.2020 21:15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.02.2020 21:15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.02.2020 21:15	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	10.02.2020 21:15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.02.2020 21:15	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.02.2020 21:15	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.02.2020 21:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.02.2020 21:15	
4-Bromofluorobenzene	460-00-4	91	%	70-130	10.02.2020 21:15	



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 303 H CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3138826

MB Sample Id: 7712536-1-BLK

Matrix: Solid

LCS Sample Id: 7712536-1-BKS

Prep Method: E300P

Date Prep: 10.02.2020

LCSD Sample Id: 7712536-1-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	250	100	251	100	90-110	0	20	mg/kg	10.02.2020 13:59	

Analytical Method: Chloride by EPA 300

Seq Number: 3138826

Parent Sample Id: 674037-005

Matrix: Soil

MS Sample Id: 674037-005 S

Prep Method: E300P

Date Prep: 10.02.2020

MSD Sample Id: 674037-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.9	200	226	99	226	99	90-110	0	20	mg/kg	10.02.2020 14:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3138826

Parent Sample Id: 674037-015

Matrix: Soil

MS Sample Id: 674037-015 S

Prep Method: E300P

Date Prep: 10.02.2020

MSD Sample Id: 674037-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	123	199	311	94	312	95	90-110	0	20	mg/kg	10.02.2020 16:39	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3138732

MB Sample Id: 7712528-1-BLK

Matrix: Solid

LCS Sample Id: 7712528-1-BKS

Prep Method: SW8015P

Date Prep: 10.02.2020

LCSD Sample Id: 7712528-1-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	921	92	906	91	70-135	2	35	mg/kg	10.02.2020 10:04	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	948	95	70-135	8	35	mg/kg	10.02.2020 10:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		115		111		70-135	%	10.02.2020 10:04
o-Terphenyl	90		104		96		70-135	%	10.02.2020 10:04

Analytical Method: TPH by SW8015 Mod

Seq Number: 3138732

Matrix: Solid

MB Sample Id: 7712528-1-BLK

Prep Method: SW8015P

Date Prep: 10.02.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.02.2020 13:05	

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 303 H CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3138732

Parent Sample Id: 674037-017

Matrix: Soil

MS Sample Id: 674037-017 S

Prep Method: SW8015P

Date Prep: 10.02.2020

MSD Sample Id: 674037-017 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	995	1030	104	1020	102	70-135	1	35	mg/kg	10.02.2020 11:25	
Diesel Range Organics (DRO)	<49.8	995	1130	114	1110	111	70-135	2	35	mg/kg	10.02.2020 11:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		123		70-135	%	10.02.2020 11:25
o-Terphenyl	112		111		70-135	%	10.02.2020 11:25

Analytical Method: BTEX by EPA 8021B

Seq Number: 3138758

MB Sample Id: 7712548-1-BLK

Matrix: Solid

LCS Sample Id: 7712548-1-BKS

Prep Method: SW5035A

Date Prep: 10.02.2020

LCSD Sample Id: 7712548-1-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	0.106	106	0.117	117	70-130	10	35	mg/kg	10.02.2020 11:32	
Toluene	<0.00200	0.100	0.102	102	0.112	112	70-130	9	35	mg/kg	10.02.2020 11:32	
Ethylbenzene	<0.00200	0.100	0.0939	94	0.103	103	71-129	9	35	mg/kg	10.02.2020 11:32	
m,p-Xylenes	<0.00400	0.200	0.188	94	0.206	103	70-135	9	35	mg/kg	10.02.2020 11:32	
o-Xylene	<0.00200	0.100	0.0929	93	0.102	102	71-133	9	35	mg/kg	10.02.2020 11:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		98		70-130	%	10.02.2020 11:32
4-Bromofluorobenzene	89		91		88		70-130	%	10.02.2020 11:32

Analytical Method: BTEX by EPA 8021B

Seq Number: 3138758

Parent Sample Id: 674155-001

Matrix: Soil

MS Sample Id: 674155-001 S

Prep Method: SW5035A

Date Prep: 10.02.2020

MSD Sample Id: 674155-001 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	0.114	114	0.126	126	70-130	10	35	mg/kg	10.02.2020 12:17	
Toluene	<0.00200	0.100	0.110	110	0.121	121	70-130	10	35	mg/kg	10.02.2020 12:17	
Ethylbenzene	<0.00200	0.100	0.101	101	0.111	111	71-129	9	35	mg/kg	10.02.2020 12:17	
m,p-Xylenes	<0.00400	0.200	0.202	101	0.223	112	70-135	10	35	mg/kg	10.02.2020 12:17	
o-Xylene	<0.00200	0.100	0.101	101	0.111	111	71-133	9	35	mg/kg	10.02.2020 12:17	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		98		70-130	%	10.02.2020 12:17
4-Bromofluorobenzene	86		87		70-130	%	10.02.2020 12:17

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: 674085

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)
575-382-7550

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 Litrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 West Mermond
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	jenaka@ltenv.com, dmoir@ltenv.com
Project Name:	0111 2025 110		

Program: UST/PST <input type="checkbox"/> RP <input type="checkbox"/> Throwfields <input type="checkbox"/> RC <input type="checkbox"/> \$perfund <input type="checkbox"/> State of Project:	
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other:	

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Page _____ of _____

[illegible]

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.01.2020 11.33.00 AM

Work Order #: 674085

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

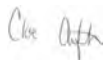
Samples received in bulk containers.

* 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: 10.01.2020

Checklist reviewed by:



Jessica Kramer

Date: 10.02.2020



Certificate of Analysis Summary 676135

LT Environmental, Inc., Arvada, CO

Project Name: PLU 303 H C7B

Project Id: 012920144

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon 10.26.2020 16:50

Report Date: 10.29.2020 08:21

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	676135-001	676135-002	676135-003	676135-004	676135-005	676135-006
	<i>Field Id:</i>	FS01	FS02	FS03	FS04	FS05	FS06
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	10.26.2020 14:00	10.26.2020 14:03	10.26.2020 14:05	10.26.2020 14:06	10.26.2020 14:08	10.26.2020 14:10
BTEX by EPA 8021B	<i>Extracted:</i>	10.27.2020 10:00	10.27.2020 10:00	10.27.2020 10:00	10.27.2020 10:00	10.27.2020 10:00	10.27.2020 10:00
	<i>Analyzed:</i>	10.27.2020 15:34	10.27.2020 15:57	10.27.2020 16:19	10.27.2020 16:41	10.27.2020 17:04	10.27.2020 17:26
	<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	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.0000198 0.0000198
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.0000198 0.0000198
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.0000198 0.0000198
m,p-Xylenes		<0.00404 0.00404	<0.00399 0.00399	<0.00398 0.00398	<0.00399 0.00399	<0.00404 0.00404	<0.0000397 0.0000397
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.0000198 0.0000198
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.0000198 0.0000198
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.0000198 0.0000198
Chloride by EPA 300	<i>Extracted:</i>	10.27.2020 12:01	10.27.2020 12:01	10.27.2020 12:01	10.27.2020 12:01	10.27.2020 12:01	10.27.2020 12:01
	<i>Analyzed:</i>	10.27.2020 17:06	10.27.2020 17:12	10.27.2020 17:18	10.27.2020 17:24	10.27.2020 17:42	10.27.2020 17:48
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		35900 199	5930 50.5	12300 201	18100 200	20000 200	21000 199
TPH by SW8015 Mod	<i>Extracted:</i>	10.27.2020 10:54	10.27.2020 10:54	10.27.2020 10:54	10.27.2020 10:54	10.27.2020 10:54	10.27.2020 10:54
	<i>Analyzed:</i>	10.27.2020 15:01	10.27.2020 15:21	10.27.2020 15:44	10.27.2020 16:04	10.27.2020 16:31	10.27.2020 16:52
	<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	<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.1 50.1	<50.3 50.3
Diesel Range Organics (DRO)		<49.8 49.8	<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.1 50.1	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.1 50.1	<50.3 50.3
Total GRO-DRO		<49.8 49.8	<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.1 50.1	<50.3 50.3
Total TPH		<49.8 49.8	<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.1 50.1	<50.3 50.3

BRL - Below Reporting Limit

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

Jessica Kramer

Certificate of Analysis Summary 676135



LT Environmental, Inc., Arvada, CO

Project Name: PLU 303 H C7B

Project Id: 012920144

Date Received in Lab: Mon 10.26.2020 16:50

Contact: Dan Moir

Report Date: 10.29.2020 08:21

Project Location:

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	676135-007	676135-008	676135-009	676135-010	676135-011	676135-012
	<i>Field Id:</i>	FS07	FS08	FS09	FS10	FS11	FS12
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	10.26.2020 14:13	10.26.2020 14:15	10.26.2020 14:18	10.26.2020 14:17	10.26.2020 14:20	10.26.2020 14:22
BTEX by EPA 8021B	<i>Extracted:</i>	10.27.2020 10:00	10.27.2020 10:00	10.27.2020 10:00	10.27.2020 10:00	10.27.2020 10:00	10.27.2020 10:00
	<i>Analyzed:</i>	10.27.2020 17:48	10.27.2020 18:11	10.27.2020 18:33	10.27.2020 19:51	10.27.2020 20:13	10.27.2020 20:36
	<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	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00404 0.00404	<0.00399 0.00399	<0.00397 0.00397	<0.00398 0.00398	<0.00399 0.00399	<0.00403 0.00403
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	10.27.2020 12:01	10.27.2020 12:01	10.27.2020 12:01	10.27.2020 12:01	10.27.2020 12:01	10.27.2020 12:01
	<i>Analyzed:</i>	10.27.2020 17:54	10.27.2020 18:00	10.27.2020 18:06	10.27.2020 18:12	10.27.2020 18:30	10.27.2020 18:36
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		2270 49.8	1820 50.1	22300 202	19400 200	16400 201	20300 199
TPH by SW8015 Mod	<i>Extracted:</i>	10.27.2020 10:54	10.27.2020 10:54	10.27.2020 10:54	10.27.2020 10:54	10.27.2020 10:54	10.27.2020 10:54
	<i>Analyzed:</i>	10.27.2020 17:12	10.27.2020 17:32	10.27.2020 17:52	10.27.2020 18:32	10.27.2020 18:52	10.27.2020 19:12
	<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	<49.9 49.9	<50.3 50.3	<50.2 50.2	<49.9 49.9	<49.8 49.8
Diesel Range Organics (DRO)		<50.2 50.2	<49.9 49.9	<50.3 50.3	<50.2 50.2	81.2 49.9	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.9 49.9	<50.3 50.3	<50.2 50.2	<49.9 49.9	<49.8 49.8
Total GRO-DRO		<50.2 50.2	<49.9 49.9	<50.3 50.3	<50.2 50.2	81.2 49.9	<49.8 49.8
Total TPH		<50.2 50.2	<49.9 49.9	<50.3 50.3	<50.2 50.2	81.2 49.9	<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 676135



LT Environmental, Inc., Arvada, CO

Project Name: PLU 303 H C7B

Project Id: 012920144

Date Received in Lab: Mon 10.26.2020 16:50

Contact: Dan Moir

Report Date: 10.29.2020 08:21

Project Location:

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	676135-013	676135-014	676135-015	676135-016	676135-017	676135-018
	<i>Field Id:</i>	BH01	BH01 A	BH02	BH02 A	BH03	BH03 A
	<i>Depth:</i>	1- ft	2- ft	1- ft	2- ft	1- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	10.26.2020 10:47	10.26.2020 10:50	10.26.2020 11:14	10.26.2020 11:16	10.26.2020 11:21	10.26.2020 11:24
BTEX by EPA 8021B	<i>Extracted:</i>	10.27.2020 10:00	10.27.2020 10:00	10.27.2020 10:00	10.27.2020 10:00	10.27.2020 10:00	10.27.2020 10:00
	<i>Analyzed:</i>	10.27.2020 20:58	10.27.2020 21:20	10.27.2020 21:43	10.27.2020 22:05	10.27.2020 22:28	10.27.2020 22:50
	<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	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202
Toluene		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202
Ethylbenzene		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202
m,p-Xylenes		<0.00398 0.00398	<0.00396 0.00396	<0.00400 0.00400	<0.00404 0.00404	<0.00403 0.00403	<0.00403 0.00403
o-Xylene		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202
Total Xylenes		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202
Total BTEX		<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	10.27.2020 12:01	10.27.2020 12:01	10.27.2020 12:01	10.27.2020 12:01	10.27.2020 12:01	10.27.2020 12:01
	<i>Analyzed:</i>	10.27.2020 18:54	10.27.2020 19:00	10.27.2020 19:06	10.27.2020 19:12	10.27.2020 19:18	10.27.2020 19:24
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		5580 49.9	4390 49.8	196 9.98	69.9 9.92	71.8 9.98	57.8 9.96
TPH by SW8015 Mod	<i>Extracted:</i>	10.27.2020 10:54	10.27.2020 10:54	10.27.2020 10:54	10.27.2020 10:54	10.27.2020 10:54	10.27.2020 10:54
	<i>Analyzed:</i>	10.27.2020 19:32	10.27.2020 19:52	10.27.2020 20:12	10.27.2020 20:32	10.27.2020 20:53	10.27.2020 21:12
	<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	<49.8 49.8	<50.3 50.3	<49.9 49.9	<49.9 49.9	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<49.8 49.8	<50.3 50.3	<49.9 49.9	<49.9 49.9	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.8 49.8	<50.3 50.3	<49.9 49.9	<49.9 49.9	<49.9 49.9
Total GRO-DRO		<50.0 50.0	<49.8 49.8	<50.3 50.3	<49.9 49.9	<49.9 49.9	<49.9 49.9
Total TPH		<50.0 50.0	<49.8 49.8	<50.3 50.3	<49.9 49.9	<49.9 49.9	<49.9 49.9

BRL - Below Reporting Limit

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



Analytical Report 676135

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 303 H C7B

012920144

10.29.2020

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: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



10.29.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **676135**

PLU 303 H C7B

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) 676135. 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. 676135 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 676135****LT Environmental, Inc., Arvada, CO**

PLU 303 H C7B

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	10.26.2020 14:00	0.5 ft	676135-001
FS02	S	10.26.2020 14:03	0.5 ft	676135-002
FS03	S	10.26.2020 14:05	0.5 ft	676135-003
FS04	S	10.26.2020 14:06	0.5 ft	676135-004
FS05	S	10.26.2020 14:08	0.5 ft	676135-005
FS06	S	10.26.2020 14:10	0.5 ft	676135-006
FS07	S	10.26.2020 14:13	0.5 ft	676135-007
FS08	S	10.26.2020 14:15	0.5 ft	676135-008
FS09	S	10.26.2020 14:18	0.5 ft	676135-009
FS10	S	10.26.2020 14:17	0.5 ft	676135-010
FS11	S	10.26.2020 14:20	0.5 ft	676135-011
FS12	S	10.26.2020 14:22	0.5 ft	676135-012
BH01	S	10.26.2020 10:47	1 ft	676135-013
BH01 A	S	10.26.2020 10:50	2 ft	676135-014
BH02	S	10.26.2020 11:14	1 ft	676135-015
BH02 A	S	10.26.2020 11:16	2 ft	676135-016
BH03	S	10.26.2020 11:21	1 ft	676135-017
BH03 A	S	10.26.2020 11:24	2 ft	676135-018



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 303 H C7B

Project ID: 012920144
Work Order Number(s): 676135

Report Date: 10.29.2020
Date Received: 10.26.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **FS01** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-001 Date Collected: 10.26.2020 14:00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	35900	199	mg/kg	10.27.2020 17:06		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.27.2020 15:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.27.2020 15:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.27.2020 15:01	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.27.2020 15:01	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.27.2020 15:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	10.27.2020 15:01	
o-Terphenyl	84-15-1	99	%	70-135	10.27.2020 15:01	



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **FS01**
Lab Sample Id: 676135-001

Matrix: Soil
Date Collected: 10.26.2020 14:00

Date Received: 10.26.2020 16:50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.27.2020 15:34	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.27.2020 15:34	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.27.2020 15:34	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	10.27.2020 15:34	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.27.2020 15:34	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.27.2020 15:34	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.27.2020 15:34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	10.27.2020 15:34		
1,4-Difluorobenzene	540-36-3	106	%	70-130	10.27.2020 15:34		



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **FS02** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-002 Date Collected: 10.26.2020 14:03 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5930	50.5	mg/kg	10.27.2020 17:12		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.27.2020 15:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.27.2020 15:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.27.2020 15:21	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.27.2020 15:21	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.27.2020 15:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	10.27.2020 15:21	
o-Terphenyl	84-15-1	104	%	70-135	10.27.2020 15:21	



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **FS02**
Lab Sample Id: 676135-002

Matrix: Soil
Date Collected: 10.26.2020 14:03

Date Received: 10.26.2020 16:50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.27.2020 15:57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.27.2020 15:57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.27.2020 15:57	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.27.2020 15:57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.27.2020 15:57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.27.2020 15:57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.27.2020 15:57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	10.27.2020 15:57		
1,4-Difluorobenzene	540-36-3	106	%	70-130	10.27.2020 15:57		



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **FS03** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-003 Date Collected: 10.26.2020 14:05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12300	201	mg/kg	10.27.2020 17:18		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.27.2020 15:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.27.2020 15:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.27.2020 15:44	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.27.2020 15:44	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.27.2020 15:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	10.27.2020 15:44	
o-Terphenyl	84-15-1	116	%	70-135	10.27.2020 15:44	



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LT Environmental, Inc., Arvada, CO

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Sample Id: **FS03**
Lab Sample Id: 676135-003

Matrix: Soil
Date Collected: 10.26.2020 14:05

Date Received: 10.26.2020 16:50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.27.2020 16:19	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.27.2020 16:19	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.27.2020 16:19	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.27.2020 16:19	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.27.2020 16:19	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.27.2020 16:19	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.27.2020 16:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	10.27.2020 16:19	
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.27.2020 16:19	



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LT Environmental, Inc., Arvada, CO

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Sample Id: **FS04** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-004 Date Collected: 10.26.2020 14:06 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18100	200	mg/kg	10.27.2020 17:24		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.27.2020 16:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.27.2020 16:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.27.2020 16:04	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.27.2020 16:04	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.27.2020 16:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	10.27.2020 16:04	
o-Terphenyl	84-15-1	104	%	70-135	10.27.2020 16:04	



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LT Environmental, Inc., Arvada, CO

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Sample Id: **FS04**
Lab Sample Id: 676135-004

Matrix: Soil
Date Collected: 10.26.2020 14:06

Date Received: 10.26.2020 16:50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.27.2020 16:41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.27.2020 16:41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.27.2020 16:41	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.27.2020 16:41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.27.2020 16:41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.27.2020 16:41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.27.2020 16:41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.27.2020 16:41		
4-Bromofluorobenzene	460-00-4	86	%	70-130	10.27.2020 16:41		



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LT Environmental, Inc., Arvada, CO

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Sample Id: **FS05** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-005 Date Collected: 10.26.2020 14:08 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20000	200	mg/kg	10.27.2020 17:42		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.27.2020 16:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.27.2020 16:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.27.2020 16:31	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.27.2020 16:31	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.27.2020 16:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	10.27.2020 16:31	
o-Terphenyl	84-15-1	105	%	70-135	10.27.2020 16:31	



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LT Environmental, Inc., Arvada, CO

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Sample Id: **FS05**
Lab Sample Id: 676135-005

Matrix: Soil
Date Collected: 10.26.2020 14:08

Date Received: 10.26.2020 16:50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.27.2020 17:04	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.27.2020 17:04	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.27.2020 17:04	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	10.27.2020 17:04	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.27.2020 17:04	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.27.2020 17:04	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.27.2020 17:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.27.2020 17:04	
4-Bromofluorobenzene	460-00-4	91	%	70-130	10.27.2020 17:04	



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Sample Id: **FS06** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-006 Date Collected: 10.26.2020 14:10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21000	199	mg/kg	10.27.2020 17:48		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	10.27.2020 16:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	10.27.2020 16:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	10.27.2020 16:52	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	10.27.2020 16:52	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	10.27.2020 16:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	10.27.2020 16:52	
o-Terphenyl	84-15-1	114	%	70-135	10.27.2020 16:52	



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Sample Id: **FS06**
Lab Sample Id: 676135-006

Matrix: Soil
Date Collected: 10.26.2020 14:10

Date Received: 10.26.2020 16:50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0000198	0.0000198	mg/kg	10.27.2020 17:26	U	1
Toluene	108-88-3	<0.0000198	0.0000198	mg/kg	10.27.2020 17:26	U	1
Ethylbenzene	100-41-4	<0.0000198	0.0000198	mg/kg	10.27.2020 17:26	U	1
m,p-Xylenes	179601-23-1	<0.0000397	0.0000397	mg/kg	10.27.2020 17:26	U	1
o-Xylene	95-47-6	<0.0000198	0.0000198	mg/kg	10.27.2020 17:26	U	1
Total Xylenes	1330-20-7	<0.0000198	0.0000198	mg/kg	10.27.2020 17:26	U	1
Total BTEX		<0.0000198	0.0000198	mg/kg	10.27.2020 17:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.27.2020 17:26	
4-Bromofluorobenzene	460-00-4	90	%	70-130	10.27.2020 17:26	



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Sample Id: **FS07** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-007 Date Collected: 10.26.2020 14:13 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2270	49.8	mg/kg	10.27.2020 17:54		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.27.2020 17:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.27.2020 17:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.27.2020 17:12	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.27.2020 17:12	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.27.2020 17:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	10.27.2020 17:12	
o-Terphenyl	84-15-1	118	%	70-135	10.27.2020 17:12	



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Sample Id: **FS07**
Lab Sample Id: 676135-007

Matrix: Soil
Date Collected: 10.26.2020 14:13

Date Received: 10.26.2020 16:50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.27.2020 17:48	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.27.2020 17:48	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.27.2020 17:48	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	10.27.2020 17:48	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.27.2020 17:48	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.27.2020 17:48	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.27.2020 17:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.27.2020 17:48	
4-Bromofluorobenzene	460-00-4	90	%	70-130	10.27.2020 17:48	



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Sample Id: **FS08** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-008 Date Collected: 10.26.2020 14:15 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1820	50.1	mg/kg	10.27.2020 18:00		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.27.2020 17:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.27.2020 17:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.27.2020 17:32	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.27.2020 17:32	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.27.2020 17:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	10.27.2020 17:32	
o-Terphenyl	84-15-1	116	%	70-135	10.27.2020 17:32	



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Sample Id: **FS08**
Lab Sample Id: 676135-008

Matrix: Soil
Date Collected: 10.26.2020 14:15

Date Received: 10.26.2020 16:50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.27.2020 18:11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.27.2020 18:11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.27.2020 18:11	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.27.2020 18:11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.27.2020 18:11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.27.2020 18:11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.27.2020 18:11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.27.2020 18:11		
4-Bromofluorobenzene	460-00-4	89	%	70-130	10.27.2020 18:11		



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Sample Id: **FS09** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-009 Date Collected: 10.26.2020 14:18 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22300	202	mg/kg	10.27.2020 18:06		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	10.27.2020 17:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	10.27.2020 17:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	10.27.2020 17:52	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	10.27.2020 17:52	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	10.27.2020 17:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	10.27.2020 17:52	
o-Terphenyl	84-15-1	109	%	70-135	10.27.2020 17:52	



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LT Environmental, Inc., Arvada, CO

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Sample Id: **FS09**
Lab Sample Id: 676135-009

Matrix: Soil
Date Collected: 10.26.2020 14:18

Date Received: 10.26.2020 16:50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.27.2020 18:33	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.27.2020 18:33	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.27.2020 18:33	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	10.27.2020 18:33	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.27.2020 18:33	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.27.2020 18:33	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.27.2020 18:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.27.2020 18:33		
4-Bromofluorobenzene	460-00-4	92	%	70-130	10.27.2020 18:33		



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Sample Id: **FS10** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-010 Date Collected: 10.26.2020 14:17 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19400	200	mg/kg	10.27.2020 18:12		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.27.2020 18:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.27.2020 18:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.27.2020 18:32	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.27.2020 18:32	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.27.2020 18:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	10.27.2020 18:32	
o-Terphenyl	84-15-1	103	%	70-135	10.27.2020 18:32	



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **FS10**
Lab Sample Id: 676135-010

Matrix: Soil
Date Collected: 10.26.2020 14:17

Date Received: 10.26.2020 16:50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.27.2020 19:51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.27.2020 19:51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.27.2020 19:51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.27.2020 19:51	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.27.2020 19:51	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.27.2020 19:51	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.27.2020 19:51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.27.2020 19:51		
4-Bromofluorobenzene	460-00-4	88	%	70-130	10.27.2020 19:51		



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **FS11** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-011 Date Collected: 10.26.2020 14:20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16400	201	mg/kg	10.27.2020 18:30		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.27.2020 18:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	81.2	49.9	mg/kg	10.27.2020 18:52		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.27.2020 18:52	U	1
Total GRO-DRO	PHC628	81.2	49.9	mg/kg	10.27.2020 18:52		1
Total TPH	PHC635	81.2	49.9	mg/kg	10.27.2020 18:52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	10.27.2020 18:52	
o-Terphenyl	84-15-1	103	%	70-135	10.27.2020 18:52	



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **FS11**
Lab Sample Id: 676135-011

Matrix: Soil
Date Collected: 10.26.2020 14:20

Date Received: 10.26.2020 16:50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.27.2020 20:13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.27.2020 20:13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.27.2020 20:13	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.27.2020 20:13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.27.2020 20:13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.27.2020 20:13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.27.2020 20:13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.27.2020 20:13		
4-Bromofluorobenzene	460-00-4	90	%	70-130	10.27.2020 20:13		



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **FS12** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-012 Date Collected: 10.26.2020 14:22 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20300	199	mg/kg	10.27.2020 18:36		20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.27.2020 19:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.27.2020 19:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.27.2020 19:12	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.27.2020 19:12	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.27.2020 19:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	10.27.2020 19:12	
o-Terphenyl	84-15-1	107	%	70-135	10.27.2020 19:12	



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **FS12**
Lab Sample Id: 676135-012

Matrix: Soil
Date Collected: 10.26.2020 14:22

Date Received: 10.26.2020 16:50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.27.2020 20:36	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.27.2020 20:36	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.27.2020 20:36	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.27.2020 20:36	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.27.2020 20:36	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.27.2020 20:36	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.27.2020 20:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	10.27.2020 20:36	
4-Bromofluorobenzene	460-00-4	92	%	70-130	10.27.2020 20:36	



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **BH01** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-013 Date Collected: 10.26.2020 10:47 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5580	49.9	mg/kg	10.27.2020 18:54		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.27.2020 19:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.27.2020 19:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.27.2020 19:32	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.27.2020 19:32	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.27.2020 19:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	10.27.2020 19:32	
o-Terphenyl	84-15-1	108	%	70-135	10.27.2020 19:32	



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LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **BH01**
Lab Sample Id: 676135-013

Matrix: Soil
Date Collected: 10.26.2020 10:47

Date Received: 10.26.2020 16:50
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.27.2020 20:58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.27.2020 20:58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.27.2020 20:58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.27.2020 20:58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.27.2020 20:58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.27.2020 20:58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.27.2020 20:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.27.2020 20:58	
4-Bromofluorobenzene	460-00-4	91	%	70-130	10.27.2020 20:58	



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LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **BH01 A** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-014 Date Collected: 10.26.2020 10:50 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4390	49.8	mg/kg	10.27.2020 19:00		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.27.2020 19:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.27.2020 19:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.27.2020 19:52	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.27.2020 19:52	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.27.2020 19:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	10.27.2020 19:52	
o-Terphenyl	84-15-1	103	%	70-135	10.27.2020 19:52	



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LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **BH01 A**
Lab Sample Id: 676135-014

Matrix: Soil
Date Collected: 10.26.2020 10:50

Date Received: 10.26.2020 16:50
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.27.2020 21:20	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.27.2020 21:20	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.27.2020 21:20	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	10.27.2020 21:20	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.27.2020 21:20	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.27.2020 21:20	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.27.2020 21:20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.27.2020 21:20		
4-Bromofluorobenzene	460-00-4	90	%	70-130	10.27.2020 21:20		



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LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **BH02** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-015 Date Collected: 10.26.2020 11:14 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	196	9.98	mg/kg	10.27.2020 19:06		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	10.27.2020 20:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	10.27.2020 20:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	10.27.2020 20:12	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	10.27.2020 20:12	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	10.27.2020 20:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	10.27.2020 20:12	
o-Terphenyl	84-15-1	102	%	70-135	10.27.2020 20:12	



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LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **BH02**
Lab Sample Id: 676135-015

Matrix: Soil
Date Collected: 10.26.2020 11:14

Date Received: 10.26.2020 16:50
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.27.2020 21:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.27.2020 21:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.27.2020 21:43	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.27.2020 21:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.27.2020 21:43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.27.2020 21:43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.27.2020 21:43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.27.2020 21:43		
4-Bromofluorobenzene	460-00-4	87	%	70-130	10.27.2020 21:43		



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **BH02 A** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-016 Date Collected: 10.26.2020 11:16 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	69.9	9.92	mg/kg	10.27.2020 19:12		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.27.2020 20:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.27.2020 20:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.27.2020 20:32	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.27.2020 20:32	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.27.2020 20:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	10.27.2020 20:32	
o-Terphenyl	84-15-1	101	%	70-135	10.27.2020 20:32	



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LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **BH02 A**
Lab Sample Id: 676135-016

Matrix: Soil
Date Collected: 10.26.2020 11:16

Date Received: 10.26.2020 16:50
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.27.2020 22:05	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.27.2020 22:05	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.27.2020 22:05	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	10.27.2020 22:05	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.27.2020 22:05	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.27.2020 22:05	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.27.2020 22:05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	10.27.2020 22:05		
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.27.2020 22:05		



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **BH03** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676135-017 Date Collected: 10.26.2020 11:21 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 12:01 % Moisture:
 Seq Number: 3140755 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	71.8	9.98	mg/kg	10.27.2020 19:18		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 10:54 % Moisture:
 Seq Number: 3140767 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.27.2020 20:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.27.2020 20:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.27.2020 20:53	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.27.2020 20:53	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.27.2020 20:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	10.27.2020 20:53	
o-Terphenyl	84-15-1	105	%	70-135	10.27.2020 20:53	



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **BH03**
Lab Sample Id: 676135-017

Matrix: Soil
Date Collected: 10.26.2020 11:21

Date Received: 10.26.2020 16:50
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.27.2020 22:28	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.27.2020 22:28	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.27.2020 22:28	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.27.2020 22:28	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.27.2020 22:28	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.27.2020 22:28	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.27.2020 22:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	88	%	70-130	10.27.2020 22:28		
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.27.2020 22:28		



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **BH03 A**
Lab Sample Id: 676135-018

Matrix: Soil
Date Collected: 10.26.2020 11:24

Date Received: 10.26.2020 16:50
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 12:01

% Moisture:
Basis: Wet Weight

Seq Number: 3140755

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	57.8	9.96	mg/kg	10.27.2020 19:24		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 10.27.2020 10:54

% Moisture:
Basis: Wet Weight

Seq Number: 3140767

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.27.2020 21:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.27.2020 21:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.27.2020 21:12	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.27.2020 21:12	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.27.2020 21:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	10.27.2020 21:12	
o-Terphenyl	84-15-1	108	%	70-135	10.27.2020 21:12	



Certificate of Analytical Results 676135

LT Environmental, Inc., Arvada, CO

PLU 303 H C7B

Sample Id: **BH03 A**
Lab Sample Id: 676135-018

Matrix: Soil
Date Collected: 10.26.2020 11:24

Date Received: 10.26.2020 16:50
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3140750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.27.2020 22:50	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.27.2020 22:50	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.27.2020 22:50	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.27.2020 22:50	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.27.2020 22:50	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.27.2020 22:50	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.27.2020 22:50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	89	%	70-130	10.27.2020 22:50		
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.27.2020 22:50		



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 303 H C7B

Analytical Method: Chloride by EPA 300

Seq Number: 3140755

MB Sample Id: 7713998-1-BLK

Matrix: Solid

LCS Sample Id: 7713998-1-BKS

Prep Method: E300P

Date Prep: 10.27.2020

LCSD Sample Id: 7713998-1-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	258	103	90-110	1	20	mg/kg	10.27.2020 16:36	

Analytical Method: Chloride by EPA 300

Seq Number: 3140755

Parent Sample Id: 676134-021

Matrix: Soil

MS Sample Id: 676134-021 S

Prep Method: E300P

Date Prep: 10.27.2020

MSD Sample Id: 676134-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2440	198	2650	106	2630	94	90-110	1	20	mg/kg	10.27.2020 16:54	

Analytical Method: Chloride by EPA 300

Seq Number: 3140755

Parent Sample Id: 676135-010

Matrix: Soil

MS Sample Id: 676135-010 S

Prep Method: E300P

Date Prep: 10.27.2020

MSD Sample Id: 676135-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	19400	198	19600	101	19600	101	90-110	0	20	mg/kg	10.27.2020 18:18	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3140767

MB Sample Id: 7713996-1-BLK

Matrix: Solid

LCS Sample Id: 7713996-1-BKS

Prep Method: SW8015P

Date Prep: 10.27.2020

LCSD Sample Id: 7713996-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1100	110	1050	105	70-135	5	35	mg/kg	10.27.2020 12:21	
Diesel Range Organics (DRO)	<50.0	1000	1230	123	1200	120	70-135	2	35	mg/kg	10.27.2020 12:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		125		121		70-135	%	10.27.2020 12:21
o-Terphenyl	115		119		117		70-135	%	10.27.2020 12:21

Analytical Method: TPH by SW8015 Mod

Seq Number: 3140767

Matrix: Solid

MB Sample Id: 7713996-1-BLK

Prep Method: SW8015P

Date Prep: 10.27.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.27.2020 12:02	

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 303 H C7B

Analytical Method: TPH by SW8015 Mod

Seq Number: 3140767

Parent Sample Id: 676134-021

Matrix: Soil

MS Sample Id: 676134-021 S

Prep Method: SW8015P

Date Prep: 10.27.2020

MSD Sample Id: 676134-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	978	98	893	89	70-135	9	35	mg/kg	10.27.2020 14:21	
Diesel Range Organics (DRO)	<50.2	1000	1000	100	1020	102	70-135	2	35	mg/kg	10.27.2020 14:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		133		70-135	%	10.27.2020 14:21
o-Terphenyl	107		119		70-135	%	10.27.2020 14:21

Analytical Method: BTEX by EPA 8021B

Seq Number: 3140750

MB Sample Id: 7713993-1-BLK

Matrix: Solid

LCS Sample Id: 7713993-1-BKS

Prep Method: SW5035A

Date Prep: 10.27.2020

LCSD Sample Id: 7713993-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.100	100	0.103	103	70-130	3	35	mg/kg	10.27.2020 13:09	
Toluene	<0.00200	0.100	0.0969	97	0.0994	99	70-130	3	35	mg/kg	10.27.2020 13:09	
Ethylbenzene	<0.00200	0.100	0.0883	88	0.0908	91	71-129	3	35	mg/kg	10.27.2020 13:09	
m,p-Xylenes	<0.00400	0.200	0.177	89	0.181	91	70-135	2	35	mg/kg	10.27.2020 13:09	
o-Xylene	<0.00200	0.100	0.0871	87	0.0894	89	71-133	3	35	mg/kg	10.27.2020 13:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		100		100		70-130	%	10.27.2020 13:09
4-Bromofluorobenzene	85		86		85		70-130	%	10.27.2020 13:09

Analytical Method: BTEX by EPA 8021B

Seq Number: 3140750

Parent Sample Id: 676134-021

Matrix: Soil

MS Sample Id: 676134-021 S

Prep Method: SW5035A

Date Prep: 10.27.2020

MSD Sample Id: 676134-021 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	0.110	109	0.111	111	70-130	1	35	mg/kg	10.27.2020 13:54	
Toluene	<0.00201	0.101	0.105	104	0.105	105	70-130	0	35	mg/kg	10.27.2020 13:54	
Ethylbenzene	<0.00201	0.101	0.0919	91	0.0956	96	71-129	4	35	mg/kg	10.27.2020 13:54	
m,p-Xylenes	<0.00402	0.201	0.185	92	0.192	96	70-135	4	35	mg/kg	10.27.2020 13:54	
o-Xylene	<0.00201	0.101	0.0904	90	0.0959	96	71-133	6	35	mg/kg	10.27.2020 13:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	10.27.2020 13:54
4-Bromofluorobenzene	86		82		70-130	%	10.27.2020 13:54

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



Chain of Custody

Work Order No: 1676135

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) 365-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	<u>Tatiana Morrissey</u>	Bill to: (if different)	<u>Kyle Lythrell</u>
Company Name:	<u>LI Environmental Inc.</u>	Company Name:	<u>KTO Energy</u>
Address:	<u>3300 North 45th Blvd Unit 330</u>	Address:	<u>3104 E Green St</u>
City, State ZIP:	<u>Midland, TX 79705</u>	City, State ZIP:	<u>Carlsbad, NM</u>
Phone:	<u>(432) 704-5178</u>	Email:	<u>tmorrissey@lienv.com klythrell@ktoenergy.com</u>

Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:
Reporting Level: <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

Project Name:	<u>PLU 303H CTB</u>	Turn Around	<input checked="" type="checkbox"/>
Project Number:	<u>012920144</u>	Routine	<input checked="" type="checkbox"/>
Project Location:		Rush:	
Sampler's Name:	<u>Theris Casey</u>	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Temperature (°C):	<u>1.8 / 1.0</u>	Thermometer ID	<u>TNMO07</u>	
Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	<u>-0.2</u>	
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Total Containers:	<u>18</u>	
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes	Sample Comments
FS01		5	10/26/20	1400	0.5'	1	TPH (EPA) 8015		
FS02				1403		1	BTEX (EPA 8021)		
FS03				1405		1	Chloride (EPA 300.0)		
FS04				1406		1			
FS05				1408		1			
FS06				1410		1			
FS07				1413		1			
FS08				1415		1			
FS07				1416		1			
FS10				1417		1			

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
<u>[Signature]</u>	<u>[Signature]</u>	10/26/20 16:50			
		4			
		6			

Revised Date 02/28/19 Rev. 2019.1



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334

Work Order No: 676135

Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6777
Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Corsabad, NM (432) 704-5440

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Page 2 of 2

Project Manager:	<i>Tacoma Morrissey</i>	Bill to: (if different)	<i>Kyle Littlell</i>
Company Name:	<i>L7 Environmental Inc</i>	Company Name:	<i>XTO Energy</i>
Address:	<i>3300 North A St. Bldg Unit 222</i>	Address:	<i>3104 E Greene St.</i>
City, State ZIP:	<i>Midland, TX 79705</i>	City, State ZIP:	<i>Carlsbad, NM</i>
Phone:	<i>(432) 704-5178</i>	Email:	<i>tmorrissey@lbcnv.com kcasoy@xtoenergy.com</i>

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:		PLU 303H CTB										Turn Around		Pres. Code		ANALYSIS REQUEST										Preservative Codes	
Project Number:		018980144										Routine		<input checked="" type="checkbox"/>												MeOH: Me	
Project Location												Rush:														None: NO	
Sampler's Name:		Trevi's Casey										Due Date:														HNO3: HN	
PO #:												Quote #:														H2SO4: H2	

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

Number of Containers

4 CEPA 8015
K CEPA 802
ride C300

HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:00pm

[illegible]



Total	200.7 / 6010	200.8 / 6020:
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Circle Method(s) and Metal(s) to be analyzed

[illegible]

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
		10/26/20 16:50			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.26.2020 04.50.00 PM

Work Order #: 676135

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)?	1.6
#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: 10.27.2020

Checklist reviewed by:



Jessica Kramer

Date: 10.27.2020

Certificate of Analysis Summary 676136



LT Environmental, Inc., Arvada, CO

Project Name: PLU 303H C7B

Project Id: 012920144

Date Received in Lab: Mon 10.26.2020 16:50

Contact: Dan Moir

Report Date: 10.29.2020 09:04

Project Location:

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	676136-001	676136-002	676136-003	676136-004		
	<i>Field Id:</i>	BH04	BH04 A	BH05	BH05 A		
	<i>Depth:</i>	1- ft	4- ft	1- ft	4- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	10.26.2020 09:34	10.26.2020 09:48	10.26.2020 09:49	10.26.2020 09:58		
BTEX by EPA 8021B	<i>Extracted:</i>	10.27.2020 17:05	10.27.2020 17:05	10.27.2020 17:05	10.27.2020 17:05		
	<i>Analyzed:</i>	10.28.2020 02:19	10.28.2020 02:41	10.28.2020 03:04	10.28.2020 03:26		
	<i>Units/RL:</i>	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		
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200		
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200		
m,p-Xylenes		<0.00403 0.00403	<0.00400 0.00400	<0.00396 0.00396	<0.00401 0.00401		
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200		
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200		
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200		
Chloride by EPA 300	<i>Extracted:</i>	10.27.2020 14:02	10.27.2020 14:02	10.27.2020 14:02	10.27.2020 14:02		
	<i>Analyzed:</i>	10.27.2020 20:00	10.27.2020 20:17	10.27.2020 20:23	10.27.2020 20:29		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		<9.98 9.98	88.4 10.0	23.5 10.0	61.2 9.94		
TPH by SW8015 Mod	<i>Extracted:</i>	10.27.2020 16:58	10.27.2020 16:58	10.27.2020 16:58	10.27.2020 16:58		
	<i>Analyzed:</i>	10.27.2020 23:12	10.28.2020 00:11	10.28.2020 00:31	10.28.2020 00:51		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9		
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9		
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9		
Total GRO-DRO		<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9		
Total TPH		<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9		

BRL - Below Reporting Limit

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



Analytical Report 676136

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 303H C7B

012920144

10.29.2020

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: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



10.29.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **676136**

PLU 303H C7B

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) 676136. 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. 676136 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 676136****LT Environmental, Inc., Arvada, CO**

PLU 303H C7B

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH04	S	10.26.2020 09:34	1 ft	676136-001
BH04 A	S	10.26.2020 09:48	4 ft	676136-002
BH05	S	10.26.2020 09:49	1 ft	676136-003
BH05 A	S	10.26.2020 09:58	4 ft	676136-004



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 303H C7B

Project ID: 012920144
Work Order Number(s): 676136

Report Date: 10.29.2020
Date Received: 10.26.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 676136

LT Environmental, Inc., Arvada, CO

PLU 303H C7B

Sample Id: **BH04**
Lab Sample Id: 676136-001

Matrix: Soil
Date Collected: 10.26.2020 09:34

Date Received: 10.26.2020 16:50
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 14:02

% Moisture:
Basis: Wet Weight

Seq Number: 3140756

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	10.27.2020 20:00	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 10.27.2020 16:58

% Moisture:
Basis: Wet Weight

Seq Number: 3140768

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.27.2020 23:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.27.2020 23:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.27.2020 23:12	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.27.2020 23:12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.27.2020 23:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	10.27.2020 23:12	
o-Terphenyl	84-15-1	121	%	70-135	10.27.2020 23:12	



Certificate of Analytical Results 676136

LT Environmental, Inc., Arvada, CO

PLU 303H C7B

Sample Id: **BH04**
Lab Sample Id: 676136-001

Matrix: Soil
Date Collected: 10.26.2020 09:34

Date Received: 10.26.2020 16:50
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 17:05

% Moisture:
Basis: Wet Weight

Seq Number: 3140788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.28.2020 02:19	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.28.2020 02:19	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.28.2020 02:19	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.28.2020 02:19	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.28.2020 02:19	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.28.2020 02:19	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.28.2020 02:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	10.28.2020 02:19		
4-Bromofluorobenzene	460-00-4	126	%	70-130	10.28.2020 02:19		



Certificate of Analytical Results 676136

LT Environmental, Inc., Arvada, CO

PLU 303H C7B

Sample Id: **BH04 A**
Lab Sample Id: 676136-002

Matrix: Soil
Date Collected: 10.26.2020 09:48

Date Received: 10.26.2020 16:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 14:02

% Moisture:
Basis: Wet Weight

Seq Number: 3140756

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	88.4	10.0	mg/kg	10.27.2020 20:17		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 10.27.2020 16:58

% Moisture:
Basis: Wet Weight

Seq Number: 3140768

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.28.2020 00:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.28.2020 00:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.28.2020 00:11	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.28.2020 00:11	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.28.2020 00:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	10.28.2020 00:11	
o-Terphenyl	84-15-1	124	%	70-135	10.28.2020 00:11	



Certificate of Analytical Results 676136

LT Environmental, Inc., Arvada, CO

PLU 303H C7B

Sample Id: **BH04 A**
Lab Sample Id: 676136-002

Matrix: Soil
Date Collected: 10.26.2020 09:48

Date Received: 10.26.2020 16:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 17:05

% Moisture:
Basis: Wet Weight

Seq Number: 3140788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.28.2020 02:41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.28.2020 02:41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.28.2020 02:41	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.28.2020 02:41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.28.2020 02:41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.28.2020 02:41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.28.2020 02:41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	10.28.2020 02:41		
1,4-Difluorobenzene	540-36-3	112	%	70-130	10.28.2020 02:41		



Certificate of Analytical Results 676136

LT Environmental, Inc., Arvada, CO

PLU 303H C7B

Sample Id: **BH05** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676136-003 Date Collected: 10.26.2020 09:49 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 14:02 % Moisture:
 Seq Number: 3140756 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.5	10.0	mg/kg	10.27.2020 20:23		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 16:58 % Moisture:
 Seq Number: 3140768 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.28.2020 00:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.28.2020 00:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.28.2020 00:31	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.28.2020 00:31	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.28.2020 00:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	10.28.2020 00:31	
o-Terphenyl	84-15-1	116	%	70-135	10.28.2020 00:31	



Certificate of Analytical Results 676136

LT Environmental, Inc., Arvada, CO

PLU 303H C7B

Sample Id: **BH05**
Lab Sample Id: 676136-003

Matrix: Soil
Date Collected: 10.26.2020 09:49

Date Received: 10.26.2020 16:50
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 17:05

% Moisture:
Basis: Wet Weight

Seq Number: 3140788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.28.2020 03:04	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.28.2020 03:04	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.28.2020 03:04	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	10.28.2020 03:04	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.28.2020 03:04	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.28.2020 03:04	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.28.2020 03:04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	10.28.2020 03:04		
1,4-Difluorobenzene	540-36-3	94	%	70-130	10.28.2020 03:04		



Certificate of Analytical Results 676136

LT Environmental, Inc., Arvada, CO

PLU 303H C7B

Sample Id: **BH05 A** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676136-004 Date Collected: 10.26.2020 09:58 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 14:02 % Moisture:
 Seq Number: 3140756 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	61.2	9.94	mg/kg	10.27.2020 20:29		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 16:58 % Moisture:
 Seq Number: 3140768 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.28.2020 00:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.28.2020 00:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.28.2020 00:51	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.28.2020 00:51	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.28.2020 00:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	10.28.2020 00:51	
o-Terphenyl	84-15-1	118	%	70-135	10.28.2020 00:51	



Certificate of Analytical Results 676136

LT Environmental, Inc., Arvada, CO

PLU 303H C7B

Sample Id: **BH05 A**
Lab Sample Id: 676136-004

Matrix: Soil
Date Collected: 10.26.2020 09:58

Date Received: 10.26.2020 16:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 17:05

% Moisture:
Basis: Wet Weight

Seq Number: 3140788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.28.2020 03:26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.28.2020 03:26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.28.2020 03:26	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.28.2020 03:26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.28.2020 03:26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.28.2020 03:26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.28.2020 03:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	10.28.2020 03:26	
4-Bromofluorobenzene	460-00-4	122	%	70-130	10.28.2020 03:26	



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 303H C7B

Analytical Method: Chloride by EPA 300

Seq Number: 3140756

MB Sample Id: 7714019-1-BLK

Matrix: Solid

LCS Sample Id: 7714019-1-BKS

Prep Method: E300P

Date Prep: 10.27.2020

LCSD Sample Id: 7714019-1-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	264	106	262	105	90-110	1	20	mg/kg	10.27.2020 19:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3140756

Parent Sample Id: 676136-001

Matrix: Soil

MS Sample Id: 676136-001 S

Prep Method: E300P

Date Prep: 10.27.2020

MSD Sample Id: 676136-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	209	105	206	102	90-110	1	20	mg/kg	10.27.2020 20:06	

Analytical Method: Chloride by EPA 300

Seq Number: 3140756

Parent Sample Id: 676153-005

Matrix: Soil

MS Sample Id: 676153-005 S

Prep Method: E300P

Date Prep: 10.27.2020

MSD Sample Id: 676153-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	301	200	508	104	502	101	90-110	1	20	mg/kg	10.27.2020 21:29	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3140768

MB Sample Id: 7714018-1-BLK

Matrix: Solid

LCS Sample Id: 7714018-1-BKS

Prep Method: SW8015P

Date Prep: 10.27.2020

LCSD Sample Id: 7714018-1-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	1070	107	1160	116	70-135	8	35	mg/kg	10.27.2020 22:32	
Diesel Range Organics (DRO)	<50.0	1000	920	92	1040	104	70-135	12	35	mg/kg	10.27.2020 22:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		86		127		70-135	%	10.27.2020 22:32
o-Terphenyl	107		80		133		70-135	%	10.27.2020 22:32

Analytical Method: TPH by SW8015 Mod

Seq Number: 3140768

Matrix: Solid

MB Sample Id: 7714018-1-BLK

Prep Method: SW8015P

Date Prep: 10.27.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.27.2020 22:12	

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 303H C7B

Analytical Method: TPH by SW8015 Mod

Seq Number: 3140768

Parent Sample Id: 676136-001

Matrix: Soil

MS Sample Id: 676136-001 S

Prep Method: SW8015P

Date Prep: 10.27.2020

MSD Sample Id: 676136-001 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)	<50.2	1000	1080	108	1110	111	70-135	3	35	mg/kg	10.27.2020 23:32	
Diesel Range Organics (DRO)	<50.2	1000	1250	125	1270	127	70-135	2	35	mg/kg	10.27.2020 23:32	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		125		70-135	%	10.27.2020 23:32
o-Terphenyl	113		104		70-135	%	10.27.2020 23:32

Analytical Method: BTEX by EPA 8021B

Seq Number: 3140788

MB Sample Id: 7714021-1-BLK

Matrix: Solid

LCS Sample Id: 7714021-1-BKS

Prep Method: SW5035A

Date Prep: 10.27.2020

LCSD Sample Id: 7714021-1-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	0.101	101	0.104	104	70-130	3	35	mg/kg	10.28.2020 00:14	
Toluene	<0.00200	0.100	0.0989	99	0.0982	98	70-130	1	35	mg/kg	10.28.2020 00:14	
Ethylbenzene	<0.00200	0.100	0.0989	99	0.101	101	71-129	2	35	mg/kg	10.28.2020 00:14	
m,p-Xylenes	<0.00400	0.200	0.202	101	0.208	104	70-135	3	35	mg/kg	10.28.2020 00:14	
o-Xylene	<0.00200	0.100	0.101	101	0.103	103	71-133	2	35	mg/kg	10.28.2020 00:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		101		100		70-130	%	10.28.2020 00:14
4-Bromofluorobenzene	117		109		111		70-130	%	10.28.2020 00:14

Analytical Method: BTEX by EPA 8021B

Seq Number: 3140788

Parent Sample Id: 676136-001

Matrix: Soil

MS Sample Id: 676136-001 S

Prep Method: SW5035A

Date Prep: 10.27.2020

MSD Sample Id: 676136-001 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	0.112	112	0.0978	98	70-130	14	35	mg/kg	10.28.2020 00:59	
Toluene	<0.00201	0.100	0.105	105	0.0938	94	70-130	11	35	mg/kg	10.28.2020 00:59	
Ethylbenzene	<0.00201	0.100	0.107	107	0.0953	95	71-129	12	35	mg/kg	10.28.2020 00:59	
m,p-Xylenes	<0.00402	0.201	0.216	107	0.195	97	70-135	10	35	mg/kg	10.28.2020 00:59	
o-Xylene	<0.00201	0.100	0.108	108	0.0977	98	71-133	10	35	mg/kg	10.28.2020 00:59	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		93		70-130	%	10.28.2020 00:59
4-Bromofluorobenzene	113		102		70-130	%	10.28.2020 00:59

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: 67161316

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Page 1 of 1

Project Manager:	LT Environmental, Inc., Permian office	Bill to: (if different)	Kyle Littell
Company Name:	3300 North A St. Bldg 1, Unit 222	Company Name:	XTO Energy
Address:	Midland, TX 79705	Address:	3104 E Greene St.
City, State ZIP:	(432) 704-5178	City, State ZIP:	Carlsbad, NM
Phone:		Email:	timorrissey@xenco.com

Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> RP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund State of Project: NM Reporting Level: <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RP <input type="checkbox"/> Level IV Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:		Work Order Comments
--	--	---------------------

Project Name:	PLC 303H C7B	Turn Around	
Project Number:	012920141	Routine	<input checked="" type="checkbox"/>
P.O. Number:		Rush:	
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT				ANALYSIS REQUEST				Work Order Notes	
Temperature (°C):	1.8 / 1.6	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID	TNN007						
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2						
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Total Containers:	4						

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers			Sample Comments
					TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	
BH04	S	10/24/20	0934	1'	X	X	X	
BH04A	I		0948	4'	X	X	X	
BH05	I		0949	1'	X	X	X	
BH05A	I		0958	4'	X	X	X	

TAT starts the day received by the lab, if received by 4:30pm									
Sample Comments									

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
		10/26/20 16:50			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.26.2020 04.50.00 PM

Work Order #: 676136

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)?	1.6
#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: 10.27.2020

Checklist reviewed by:



Jessica Kramer

Date: 10.27.2020

Certificate of Analysis Summary 676137



LT Environmental, Inc., Arvada, CO

Project Name: PLU 303H C7B

Project Id: 012920144

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon 10.26.2020 16:50

Report Date: 10.29.2020 09:04

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	676137-001	676137-002				
	Field Id:	BH06	BH07				
	Depth:	1- ft	1- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	10.26.2020 13:14	10.26.2020 13:18				
BTEX by EPA 8021B	Extracted:	10.27.2020 17:05	10.27.2020 17:05				
	Analyzed:	10.28.2020 03:49	10.28.2020 04:11				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00199 0.00199	<0.00200 0.00200				
Toluene		<0.00199 0.00199	<0.00200 0.00200				
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200				
m,p-Xylenes		<0.00398 0.00398	<0.00400 0.00400				
o-Xylene		<0.00199 0.00199	<0.00200 0.00200				
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200				
Total BTEX		<0.00199 0.00199	<0.00200 0.00200				
Chloride by EPA 300	Extracted:	10.27.2020 14:02	10.27.2020 14:02				
	Analyzed:	10.27.2020 20:35	10.27.2020 20:53				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		17.1 9.98	24.8 9.98				
TPH by SW8015 Mod	Extracted:	10.27.2020 16:58	10.27.2020 16:58				
	Analyzed:	10.28.2020 01:11	10.28.2020 01:31				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.2 50.2				
Diesel Range Organics (DRO)		<50.0 50.0	<50.2 50.2				
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.2 50.2				
Total GRO-DRO		<50.0 50.0	<50.2 50.2				
Total TPH		<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 676137

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 303H C7B

012920144

10.29.2020

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: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



10.29.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **676137**

PLU 303H C7B

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) 676137. 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. 676137 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 676137

LT Environmental, Inc., Arvada, CO

PLU 303H C7B

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH06	S	10.26.2020 13:14	1 ft	676137-001
BH07	S	10.26.2020 13:18	1 ft	676137-002



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 303H C7B

Project ID: 012920144
Work Order Number(s): 676137

Report Date: 10.29.2020
Date Received: 10.26.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 676137

LT Environmental, Inc., Arvada, CO

PLU 303H C7B

Sample Id: **BH06** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676137-001 Date Collected: 10.26.2020 13:14 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 14:02 % Moisture:
 Seq Number: 3140756 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.1	9.98	mg/kg	10.27.2020 20:35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 16:58 % Moisture:
 Seq Number: 3140768 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.28.2020 01:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.28.2020 01:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.28.2020 01:11	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.28.2020 01:11	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.28.2020 01:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	10.28.2020 01:11	
o-Terphenyl	84-15-1	114	%	70-135	10.28.2020 01:11	



Certificate of Analytical Results 676137

LT Environmental, Inc., Arvada, CO

PLU 303H C7B

Sample Id: **BH06**
Lab Sample Id: 676137-001

Matrix: Soil
Date Collected: 10.26.2020 13:14

Date Received: 10.26.2020 16:50
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 17:05

% Moisture:
Basis: Wet Weight

Seq Number: 3140788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.28.2020 03:49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.28.2020 03:49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.28.2020 03:49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.28.2020 03:49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.28.2020 03:49	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.28.2020 03:49	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.28.2020 03:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	10.28.2020 03:49		
1,4-Difluorobenzene	540-36-3	106	%	70-130	10.28.2020 03:49		



Certificate of Analytical Results 676137

LT Environmental, Inc., Arvada, CO

PLU 303H C7B

Sample Id: **BH07** Matrix: Soil Date Received: 10.26.2020 16:50
 Lab Sample Id: 676137-002 Date Collected: 10.26.2020 13:18 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.27.2020 14:02 % Moisture:
 Seq Number: 3140756 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.8	9.98	mg/kg	10.27.2020 20:53		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 10.27.2020 16:58 % Moisture:
 Seq Number: 3140768 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.28.2020 01:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.28.2020 01:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.28.2020 01:31	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.28.2020 01:31	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.28.2020 01:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	10.28.2020 01:31	
o-Terphenyl	84-15-1	120	%	70-135	10.28.2020 01:31	



Certificate of Analytical Results 676137

LT Environmental, Inc., Arvada, CO

PLU 303H C7B

Sample Id: **BH07**
Lab Sample Id: 676137-002

Matrix: Soil
Date Collected: 10.26.2020 13:18

Date Received: 10.26.2020 16:50
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.27.2020 17:05

% Moisture:
Basis: Wet Weight

Seq Number: 3140788

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.28.2020 04:11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.28.2020 04:11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.28.2020 04:11	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.28.2020 04:11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.28.2020 04:11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.28.2020 04:11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.28.2020 04:11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	10.28.2020 04:11		
1,4-Difluorobenzene	540-36-3	109	%	70-130	10.28.2020 04:11		



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 303H C7B

Analytical Method: Chloride by EPA 300

Seq Number: 3140756

MB Sample Id: 7714019-1-BLK

Matrix: Solid

LCS Sample Id: 7714019-1-BKS

Prep Method: E300P

Date Prep: 10.27.2020

LCSD Sample Id: 7714019-1-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	264	106	262	105	90-110	1	20	mg/kg	10.27.2020 19:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3140756

Parent Sample Id: 676136-001

Matrix: Soil

MS Sample Id: 676136-001 S

Prep Method: E300P

Date Prep: 10.27.2020

MSD Sample Id: 676136-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	209	105	206	102	90-110	1	20	mg/kg	10.27.2020 20:06	

Analytical Method: Chloride by EPA 300

Seq Number: 3140756

Parent Sample Id: 676153-005

Matrix: Soil

MS Sample Id: 676153-005 S

Prep Method: E300P

Date Prep: 10.27.2020

MSD Sample Id: 676153-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	301	200	508	104	502	101	90-110	1	20	mg/kg	10.27.2020 21:29	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3140768

MB Sample Id: 7714018-1-BLK

Matrix: Solid

LCS Sample Id: 7714018-1-BKS

Prep Method: SW8015P

Date Prep: 10.27.2020

LCSD Sample Id: 7714018-1-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	1070	107	1160	116	70-135	8	35	mg/kg	10.27.2020 22:32	
Diesel Range Organics (DRO)	<50.0	1000	920	92	1040	104	70-135	12	35	mg/kg	10.27.2020 22:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		86		127		70-135	%	10.27.2020 22:32
o-Terphenyl	107		80		133		70-135	%	10.27.2020 22:32

Analytical Method: TPH by SW8015 Mod

Seq Number: 3140768

Matrix: Solid

MB Sample Id: 7714018-1-BLK

Prep Method: SW8015P

Date Prep: 10.27.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.27.2020 22:12	

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 303H C7B

Analytical Method: TPH by SW8015 Mod

Seq Number: 3140768

Parent Sample Id: 676136-001

Matrix: Soil

MS Sample Id: 676136-001 S

Prep Method: SW8015P

Date Prep: 10.27.2020

MSD Sample Id: 676136-001 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)	<50.2	1000	1080	108	1110	111	70-135	3	35	mg/kg	10.27.2020 23:32	
Diesel Range Organics (DRO)	<50.2	1000	1250	125	1270	127	70-135	2	35	mg/kg	10.27.2020 23:32	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		125		70-135	%	10.27.2020 23:32
o-Terphenyl	113		104		70-135	%	10.27.2020 23:32

Analytical Method: BTEX by EPA 8021B

Seq Number: 3140788

MB Sample Id: 7714021-1-BLK

Matrix: Solid

LCS Sample Id: 7714021-1-BKS

Prep Method: SW5035A

Date Prep: 10.27.2020

LCSD Sample Id: 7714021-1-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	0.101	101	0.104	104	70-130	3	35	mg/kg	10.28.2020 00:14	
Toluene	<0.00200	0.100	0.0989	99	0.0982	98	70-130	1	35	mg/kg	10.28.2020 00:14	
Ethylbenzene	<0.00200	0.100	0.0989	99	0.101	101	71-129	2	35	mg/kg	10.28.2020 00:14	
m,p-Xylenes	<0.00400	0.200	0.202	101	0.208	104	70-135	3	35	mg/kg	10.28.2020 00:14	
o-Xylene	<0.00200	0.100	0.101	101	0.103	103	71-133	2	35	mg/kg	10.28.2020 00:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		101		100		70-130	%	10.28.2020 00:14
4-Bromofluorobenzene	117		109		111		70-130	%	10.28.2020 00:14

Analytical Method: BTEX by EPA 8021B

Seq Number: 3140788

Parent Sample Id: 676136-001

Matrix: Soil

MS Sample Id: 676136-001 S

Prep Method: SW5035A

Date Prep: 10.27.2020

MSD Sample Id: 676136-001 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	0.112	112	0.0978	98	70-130	14	35	mg/kg	10.28.2020 00:59	
Toluene	<0.00201	0.100	0.105	105	0.0938	94	70-130	11	35	mg/kg	10.28.2020 00:59	
Ethylbenzene	<0.00201	0.100	0.107	107	0.0953	95	71-129	12	35	mg/kg	10.28.2020 00:59	
m,p-Xylenes	<0.00402	0.201	0.216	107	0.195	97	70-135	10	35	mg/kg	10.28.2020 00:59	
o-Xylene	<0.00201	0.100	0.108	108	0.0977	98	71-133	10	35	mg/kg	10.28.2020 00:59	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		93		70-130	%	10.28.2020 00:59
4-Bromofluorobenzene	113		102		70-130	%	10.28.2020 00:59

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: 676137

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)

www.xenco.com

Page _____ of _____

Project Manager:	<i>Lacombe Morrissey</i>	Bill to: (if different)	Kyle Little
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 704-5178	Email:	tmorrissey@ltenv.com teasey@ltenv.com klemmings@ltenv.com

Work Order Comments	
Program: UST/PST	<input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	NM
Reporting: Level II	<input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD	<input type="checkbox"/> ADA/Pt <input type="checkbox"/> Other:

Project Name:	PL0 303H C78		Turn Around
Project Number:	012920144		Routine <input checked="" type="checkbox"/>
P.O. Number:			Rush:
Sampler's Name:	Travis Casey		Due Date:

ANALYSIS REQUEST

Work Order Notes

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	1.8 ± 0.6						
Received Intact:	Yes	No			Thermometer ID	7NM007	
Cooler Custody Seals:	Yes	No			Correction Factor:	-0.2	
Sample Custody Seals:	Yes	No			Total Containers:	2	



Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EP)	BTEX (E)	Chloride	Sample Comments
B1106	S	10/24/99	1314	1'	1	K	K	K	Discrete 1
B1107			1318	1'	1	K	K	K	

Total 200.7 / 6010 200.8 / 6020:
Circle Method(s) and Metal(s) to be

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 / 77470 / 77470

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 \$6 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 		10/26/20 16:50	2		
3			4		
5			6		

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.26.2020 04.50.00 PM

Work Order #: 676137

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)?	1.6
#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: 10.27.2020

Checklist reviewed by:



Jessica Kramer

Date: 10.27.2020

Certificate of Analysis Summary 676674



LT Environmental, Inc., Arvada, CO

Project Name: PLU 303H CTB

Project Id: 012920144

Date Received in Lab: Mon 11.02.2020 15:10

Contact: Dan Moir

Report Date: 11.05.2020 11:50

Project Location:

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	676674-001	676674-002	676674-003	676674-004	676674-005	
	<i>Field Id:</i>	FS01A	FS06A	FS09A	FS12A	BH01B	
	<i>Depth:</i>	1- ft	1- ft	1- ft	1- ft	3- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	11.02.2020 12:05	11.02.2020 11:25	11.02.2020 11:10	11.02.2020 10:30	11.02.2020 12:40	
BTEX by EPA 8021B	<i>Extracted:</i>	11.03.2020 09:30	11.03.2020 09:30	11.03.2020 09:30	11.03.2020 09:30	11.03.2020 09:30	
	<i>Analyzed:</i>	11.03.2020 14:18	11.03.2020 14:40	11.03.2020 15:02	11.03.2020 15:25	11.03.2020 15:47	
	<i>Units/RL:</i>	mg/kg 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	<0.00199 0.00199	<0.00200 0.00200	
Toluene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	
m,p-Xylenes		<0.00399 0.00399	<0.00403 0.00403	<0.00401 0.00401	<0.00398 0.00398	<0.00399 0.00399	
o-Xylene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	
Total BTEX		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	
Chloride by EPA 300	<i>Extracted:</i>	11.02.2020 16:33	11.02.2020 16:33	11.02.2020 16:33	11.02.2020 16:33	11.02.2020 16:33	
	<i>Analyzed:</i>	11.02.2020 19:55	11.02.2020 20:01	11.02.2020 20:06	11.02.2020 20:11	11.02.2020 20:17	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		5710 49.5	4900 50.5	8810 49.6	2500 49.9	49.8 10.0	
TPH by SW8015 Mod	<i>Extracted:</i>	11.02.2020 16:30	11.02.2020 16:30	11.02.2020 16:30	11.02.2020 16:30	11.02.2020 16:30	
	<i>Analyzed:</i>	11.03.2020 00:19	11.03.2020 00:39	11.03.2020 00:59	11.03.2020 01:19	11.03.2020 01:39	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.8 49.8	<50.2 50.2	<49.8 49.8	<50.0 50.0	
Diesel Range Organics (DRO)		<49.9 49.9	<49.8 49.8	<50.2 50.2	<49.8 49.8	<50.0 50.0	
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.8 49.8	<50.2 50.2	<49.8 49.8	<50.0 50.0	
Total GRO-DRO		<49.9 49.9	<49.8 49.8	<50.2 50.2	<49.8 49.8	<50.0 50.0	
Total TPH		<49.9 49.9	<49.8 49.8	<50.2 50.2	<49.8 49.8	<50.0 50.0	

BRL - Below Reporting Limit

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



Analytical Report 676674

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 303H CTB

012920144

11.05.2020

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: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



11.05.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **676674**

PLU 303H CTB

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) 676674. 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. 676674 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 676674****LT Environmental, Inc., Arvada, CO**

PLU 303H CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01A	S	11.02.2020 12:05	1 ft	676674-001
FS06A	S	11.02.2020 11:25	1 ft	676674-002
FS09A	S	11.02.2020 11:10	1 ft	676674-003
FS12A	S	11.02.2020 10:30	1 ft	676674-004
BH01B	S	11.02.2020 12:40	3 ft	676674-005



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 303H CTB

Project ID: 012920144
Work Order Number(s): 676674

Report Date: 11.05.2020
Date Received: 11.02.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 676674

LT Environmental, Inc., Arvada, CO

PLU 303H CTB

Sample Id: **FS01A** Matrix: Soil Date Received: 11.02.2020 15:10
 Lab Sample Id: 676674-001 Date Collected: 11.02.2020 12:05 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 11.02.2020 16:33 % Moisture:
 Seq Number: 3141207 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5710	49.5	mg/kg	11.02.2020 19:55		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 11.02.2020 16:30 % Moisture:
 Seq Number: 3141201 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.03.2020 00:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.03.2020 00:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.03.2020 00:19	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.03.2020 00:19	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.03.2020 00:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	11.03.2020 00:19	
o-Terphenyl	84-15-1	120	%	70-135	11.03.2020 00:19	



Certificate of Analytical Results 676674

LT Environmental, Inc., Arvada, CO

PLU 303H CTB

Sample Id: **FS01A**
Lab Sample Id: 676674-001

Matrix: Soil
Date Collected: 11.02.2020 12:05

Date Received: 11.02.2020 15:10
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.03.2020 09:30

% Moisture:
Basis: Wet Weight

Seq Number: 3141311

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.03.2020 14:18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.03.2020 14:18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.03.2020 14:18	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.03.2020 14:18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.03.2020 14:18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.03.2020 14:18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.03.2020 14:18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	11.03.2020 14:18		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.03.2020 14:18		



Certificate of Analytical Results 676674

LT Environmental, Inc., Arvada, CO

PLU 303H CTB

Sample Id: **FS06A** Matrix: Soil Date Received: 11.02.2020 15:10
 Lab Sample Id: 676674-002 Date Collected: 11.02.2020 11:25 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 11.02.2020 16:33 % Moisture:
 Seq Number: 3141207 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4900	50.5	mg/kg	11.02.2020 20:01		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 11.02.2020 16:30 % Moisture:
 Seq Number: 3141201 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.03.2020 00:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.03.2020 00:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.03.2020 00:39	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.03.2020 00:39	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.03.2020 00:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	126	%	70-135	11.03.2020 00:39	
o-Terphenyl	84-15-1	123	%	70-135	11.03.2020 00:39	



Certificate of Analytical Results 676674

LT Environmental, Inc., Arvada, CO

PLU 303H CTB

Sample Id: **FS06A**
Lab Sample Id: 676674-002

Matrix: Soil
Date Collected: 11.02.2020 11:25

Date Received: 11.02.2020 15:10
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.03.2020 09:30

% Moisture:
Basis: Wet Weight

Seq Number: 3141311

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.03.2020 14:40	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.03.2020 14:40	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.03.2020 14:40	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.03.2020 14:40	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.03.2020 14:40	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.03.2020 14:40	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.03.2020 14:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.03.2020 14:40		
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.03.2020 14:40		



Certificate of Analytical Results 676674

LT Environmental, Inc., Arvada, CO

PLU 303H CTB

Sample Id: **FS09A** Matrix: Soil Date Received: 11.02.2020 15:10
 Lab Sample Id: 676674-003 Date Collected: 11.02.2020 11:10 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 11.02.2020 16:33 % Moisture:
 Seq Number: 3141207 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8810	49.6	mg/kg	11.02.2020 20:06		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 11.02.2020 16:30 % Moisture:
 Seq Number: 3141201 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.03.2020 00:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.03.2020 00:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.03.2020 00:59	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.03.2020 00:59	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.03.2020 00:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-135	11.03.2020 00:59	
o-Terphenyl	84-15-1	125	%	70-135	11.03.2020 00:59	



Certificate of Analytical Results 676674

LT Environmental, Inc., Arvada, CO

PLU 303H CTB

Sample Id: **FS09A**
Lab Sample Id: 676674-003

Matrix: Soil
Date Collected: 11.02.2020 11:10

Date Received: 11.02.2020 15:10
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.03.2020 09:30

% Moisture:
Basis: Wet Weight

Seq Number: 3141311

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.03.2020 15:02	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.03.2020 15:02	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.03.2020 15:02	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.03.2020 15:02	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.03.2020 15:02	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.03.2020 15:02	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.03.2020 15:02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.03.2020 15:02		
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.03.2020 15:02		



Certificate of Analytical Results 676674

LT Environmental, Inc., Arvada, CO

PLU 303H CTB

Sample Id: **FS12A** Matrix: Soil Date Received: 11.02.2020 15:10
 Lab Sample Id: 676674-004 Date Collected: 11.02.2020 10:30 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 11.02.2020 16:33 % Moisture:
 Seq Number: 3141207 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2500	49.9	mg/kg	11.02.2020 20:11		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 11.02.2020 16:30 % Moisture:
 Seq Number: 3141201 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.03.2020 01:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.03.2020 01:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.03.2020 01:19	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.03.2020 01:19	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.03.2020 01:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.03.2020 01:19	
o-Terphenyl	84-15-1	118	%	70-135	11.03.2020 01:19	



Certificate of Analytical Results 676674

LT Environmental, Inc., Arvada, CO

PLU 303H CTB

Sample Id: **FS12A**
Lab Sample Id: 676674-004

Matrix: Soil
Date Collected: 11.02.2020 10:30

Date Received: 11.02.2020 15:10
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.03.2020 09:30

% Moisture:
Basis: Wet Weight

Seq Number: 3141311

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.03.2020 15:25	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.03.2020 15:25	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.03.2020 15:25	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.03.2020 15:25	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.03.2020 15:25	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.03.2020 15:25	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.03.2020 15:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	120	%	70-130	11.03.2020 15:25	
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.03.2020 15:25	



Certificate of Analytical Results 676674

LT Environmental, Inc., Arvada, CO

PLU 303H CTB

Sample Id: **BH01B** Matrix: Soil Date Received: 11.02.2020 15:10
 Lab Sample Id: 676674-005 Date Collected: 11.02.2020 12:40 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 11.02.2020 16:33 % Moisture:
 Seq Number: 3141207 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	49.8	10.0	mg/kg	11.02.2020 20:17		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 11.02.2020 16:30 % Moisture:
 Seq Number: 3141201 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.03.2020 01:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.03.2020 01:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.03.2020 01:39	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.03.2020 01:39	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.03.2020 01:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-135	11.03.2020 01:39	
o-Terphenyl	84-15-1	122	%	70-135	11.03.2020 01:39	



Certificate of Analytical Results 676674

LT Environmental, Inc., Arvada, CO

PLU 303H CTB

Sample Id: **BH01B**
Lab Sample Id: 676674-005

Matrix: Soil
Date Collected: 11.02.2020 12:40

Date Received: 11.02.2020 15:10
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.03.2020 09:30

% Moisture:
Basis: Wet Weight

Seq Number: 3141311

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.03.2020 15:47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.03.2020 15:47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.03.2020 15:47	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.03.2020 15:47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.03.2020 15:47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.03.2020 15:47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.03.2020 15:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.03.2020 15:47	
4-Bromofluorobenzene	460-00-4	114	%	70-130	11.03.2020 15:47	



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 303H CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3141207

MB Sample Id: 7714384-1-BLK

Matrix: Solid

LCS Sample Id: 7714384-1-BKS

Prep Method: E300P

Date Prep: 11.02.2020

LCSD Sample Id: 7714384-1-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	253	101	252	101	90-110	0	20	mg/kg	11.02.2020 18:55	

Analytical Method: Chloride by EPA 300

Seq Number: 3141207

Parent Sample Id: 676514-005

Matrix: Soil

MS Sample Id: 676514-005 S

Prep Method: E300P

Date Prep: 11.02.2020

MSD Sample Id: 676514-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3690	199	3900	106	3880	95	90-110	1	20	mg/kg	11.02.2020 19:11	

Analytical Method: Chloride by EPA 300

Seq Number: 3141207

Parent Sample Id: 676679-001

Matrix: Soil

MS Sample Id: 676679-001 S

Prep Method: E300P

Date Prep: 11.02.2020

MSD Sample Id: 676679-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	344	200	530	93	542	99	90-110	2	20	mg/kg	11.02.2020 20:28	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3141201

MB Sample Id: 7714382-1-BLK

Matrix: Solid

LCS Sample Id: 7714382-1-BKS

Prep Method: SW8015P

Date Prep: 11.02.2020

LCSD Sample Id: 7714382-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	907	91	852	85	70-135	6	35	mg/kg	11.02.2020 18:36	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1000	100	70-135	4	35	mg/kg	11.02.2020 18:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		125		105		70-135	%	11.02.2020 18:36
o-Terphenyl	101		103		101		70-135	%	11.02.2020 18:36

Analytical Method: TPH by SW8015 Mod

Seq Number: 3141201

Matrix: Solid

MB Sample Id: 7714382-1-BLK

Prep Method: SW8015P

Date Prep: 11.02.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.02.2020 18:16	

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 303H CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3141201

Parent Sample Id: 676514-007

Matrix: Soil

MS Sample Id: 676514-007 S

Prep Method: SW8015P

Date Prep: 11.02.2020

MSD Sample Id: 676514-007 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	837	84	838	84	70-135	0	35	mg/kg	11.02.2020 19:37	
Diesel Range Organics (DRO)	<50.2	1000	910	91	927	93	70-135	2	35	mg/kg	11.02.2020 19:37	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		133		70-135	%	11.02.2020 19:37
o-Terphenyl	118		123		70-135	%	11.02.2020 19:37

Analytical Method: BTEX by EPA 8021B

Seq Number: 3141311

MB Sample Id: 7714461-1-BLK

Matrix: Solid

LCS Sample Id: 7714461-1-BKS

Prep Method: SW5035A

Date Prep: 11.03.2020

LCSD Sample Id: 7714461-1-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	0.101	101	0.106	106	70-130	5	35	mg/kg	11.03.2020 09:56	
Toluene	<0.00200	0.100	0.0955	96	0.101	101	70-130	6	35	mg/kg	11.03.2020 09:56	
Ethylbenzene	<0.00200	0.100	0.0976	98	0.102	102	71-129	4	35	mg/kg	11.03.2020 09:56	
m,p-Xylenes	<0.00400	0.200	0.197	99	0.205	103	70-135	4	35	mg/kg	11.03.2020 09:56	
o-Xylene	<0.00200	0.100	0.0967	97	0.102	102	71-133	5	35	mg/kg	11.03.2020 09:56	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		99		104		70-130	%	11.03.2020 09:56
4-Bromofluorobenzene	110		103		110		70-130	%	11.03.2020 09:56

Analytical Method: BTEX by EPA 8021B

Seq Number: 3141311

Parent Sample Id: 676514-007

Matrix: Soil

MS Sample Id: 676514-007 S

Prep Method: SW5035A

Date Prep: 11.03.2020

MSD Sample Id: 676514-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.107	106	0.0886	89	70-130	19	35	mg/kg	11.03.2020 10:41	
Toluene	<0.00201	0.101	0.0986	98	0.0879	88	70-130	11	35	mg/kg	11.03.2020 10:41	
Ethylbenzene	<0.00201	0.101	0.0998	99	0.0910	91	71-129	9	35	mg/kg	11.03.2020 10:41	
m,p-Xylenes	<0.00402	0.201	0.202	100	0.186	93	70-135	8	35	mg/kg	11.03.2020 10:41	
o-Xylene	<0.00201	0.101	0.102	101	0.0943	94	71-133	8	35	mg/kg	11.03.2020 10:41	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		101		70-130	%	11.03.2020 10:41
4-Bromofluorobenzene	107		117		70-130	%	11.03.2020 10:41

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: 676674

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 1 of 1

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:	522 West Mermond
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	enaka@ltenv.com, dmoir@ltenv.com

Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> RP <input type="checkbox"/> Crownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund State of Project:	
Reporting Level: <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV	Deliverables: <input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

Project Name:	PLU 363H CTB	Turn Around	
Project Number:	012920144	Routine	<input checked="" type="checkbox"/>
P.O. Number:	Eddy County	Rush:	
Sampler's Name:	Elizabeth Naka	Due Date:	

SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Temperature (°C):	1.8/1.0	Thermometer ID	TN0007
	Received In tact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2
	Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Total Containers:	5
	Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
ESG1A	S	11/02/20	1205	1'	1	X	X	X
ES06A			1125	1'	1	X	X	X
ES09A			1110	1'	1	X	X	X
ES02A			1030	1'	1	X	X	X
BH01B			1240	3'	1	X	X	X

ANALYSIS REQUEST									
Work Order Notes									

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
<i>Elizabeth Naka</i>	<i>[Signature]</i>	11/22/20 15:10			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11.02.2020 03.10.00 PM

Work Order #: 676674

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T NM 005

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)?	Yes
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:


Checklist completed by:



Martha Castro

Date: 11.02.2020

Checklist reviewed by:



Jessica Kramer

Date: 11.03.2020

Certificate of Analysis Summary 678952



LT Environmental, Inc., Arvada, CO

Project Name: PLU 303H CTB

Project Id: 012920144
Contact: Tacoma Morrissey
Project Location:

Date Received in Lab: Tue 11.24.2020 11:37
Report Date: 11.30.2020 10:28
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 678952-001 Field Id: FS05A Depth: 0.5- ft Matrix: SOIL Sampled: 11.24.2020 09:40					
BTEX by EPA 8021B	Extracted: 11.24.2020 15:36 Analyzed: 11.24.2020 22:57 Units/RL: mg/kg RL					
Benzene	<0.00200 0.00200					
Toluene	<0.00200 0.00200					
Ethylbenzene	<0.00200 0.00200					
m,p-Xylenes	<0.00401 0.00401					
o-Xylene	<0.00200 0.00200					
Total Xylenes	<0.002000 0.002000					
Total BTEX	<0.002000 0.002000					
Chloride by EPA 300	Extracted: 11.24.2020 14:00 Analyzed: 11.24.2020 19:00 Units/RL: mg/kg RL					
Chloride	3860 49.8					
TPH by SW8015 Mod	Extracted: 11.24.2020 12:30 Analyzed: 11.24.2020 20:33 Units/RL: mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<49.8 49.8					
Diesel Range Organics (DRO)	<49.8 49.8					
Motor Oil Range Hydrocarbons (MRO)	<49.8 49.8					
Total GRO-DRO	<49.80 49.80					
Total TPH	<49.80 49.80					

BRL - Below Reporting Limit

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



Analytical Report 678952

for

LT Environmental, Inc.

Project Manager: Tacoma Morrissey

PLU 303H CTB

012920144

11.30.2020

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: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



11.30.2020

Project Manager: **Tacoma Morrissey**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **678952**

PLU 303H CTB

Project Address:

Tacoma Morrissey:

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) 678952. 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. 678952 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 678952

LT Environmental, Inc., Arvada, CO

PLU 303H CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS05A	S	11.24.2020 09:40	0.5 ft	678952-001



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 303H CTB

Project ID: 012920144
Work Order Number(s): 678952

Report Date: 11.30.2020
Date Received: 11.24.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 678952

LT Environmental, Inc., Arvada, CO

PLU 303H CTB

Sample Id: **FS05A** Matrix: Soil Date Received: 11.24.2020 11:37
 Lab Sample Id: 678952-001 Date Collected: 11.24.2020 09:40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 11.24.2020 14:00 % Moisture:
 Seq Number: 3143277 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3860	49.8	mg/kg	11.24.2020 19:00		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: MAB
 Analyst: CAC Date Prep: 11.24.2020 12:30 % Moisture:
 Seq Number: 3143273 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.24.2020 20:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.24.2020 20:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.24.2020 20:33	U	1
Total GRO-DRO	PHC628	<49.80	49.80	mg/kg	11.24.2020 20:33	U	1
Total TPH	PHC635	<49.80	49.80	mg/kg	11.24.2020 20:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	11.24.2020 20:33	
o-Terphenyl	84-15-1	111	%	70-135	11.24.2020 20:33	



Certificate of Analytical Results 678952

LT Environmental, Inc., Arvada, CO

PLU 303H CTB

Sample Id: **FS05A**
Lab Sample Id: 678952-001

Matrix: Soil
Date Collected: 11.24.2020 09:40

Date Received: 11.24.2020 11:37
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.24.2020 15:36

% Moisture:
Basis: Wet Weight

Seq Number: 3143258

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.24.2020 22:57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.24.2020 22:57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.24.2020 22:57	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.24.2020 22:57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.24.2020 22:57	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.24.2020 22:57	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.24.2020 22:57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.24.2020 22:57		
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.24.2020 22:57		



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 303H CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3143277

MB Sample Id: 7715945-1-BLK

Matrix: Solid

LCS Sample Id: 7715945-1-BKS

Prep Method: E300P

Date Prep: 11.24.2020

LCSD Sample Id: 7715945-1-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	240	96	238	95	90-110	1	20	mg/kg	11.24.2020 15:42	

Analytical Method: Chloride by EPA 300

Seq Number: 3143277

Parent Sample Id: 678846-001

Matrix: Soil

MS Sample Id: 678846-001 S

Prep Method: E300P

Date Prep: 11.24.2020

MSD Sample Id: 678846-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2690	200	2870	90	2890	101	90-110	1	20	mg/kg	11.24.2020 16:45	

Analytical Method: Chloride by EPA 300

Seq Number: 3143277

Parent Sample Id: 678848-005

Matrix: Soil

MS Sample Id: 678848-005 S

Prep Method: E300P

Date Prep: 11.24.2020

MSD Sample Id: 678848-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.8	201	219	97	220	97	90-110	0	20	mg/kg	11.24.2020 17:57	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3143273

MB Sample Id: 7715953-1-BLK

Matrix: Solid

LCS Sample Id: 7715953-1-BKS

Prep Method: SW8015P

Date Prep: 11.24.2020

LCSD Sample Id: 7715953-1-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	1010	101	70-135	2	35	mg/kg	11.24.2020 14:06	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1140	114	70-135	9	35	mg/kg	11.24.2020 14:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		107		114		70-135	%	11.24.2020 14:06
o-Terphenyl	111		105		100		70-135	%	11.24.2020 14:06

Analytical Method: TPH by SW8015 Mod

Seq Number: 3143273

Matrix: Solid

MB Sample Id: 7715953-1-BLK

Prep Method: SW8015P

Date Prep: 11.24.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.24.2020 13:46	

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 303H CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3143273

Parent Sample Id: 678851-001

Matrix: Soil

MS Sample Id: 678851-001 S

Prep Method: SW8015P

Date Prep: 11.24.2020

MSD Sample Id: 678851-001 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)	<49.8	995	1150	116	1010	101	70-135	13	35	mg/kg	11.24.2020 15:06	
Diesel Range Organics (DRO)	<49.8	995	1090	110	1130	113	70-135	4	35	mg/kg	11.24.2020 15:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		115		70-135	%	11.24.2020 15:06
o-Terphenyl	107		104		70-135	%	11.24.2020 15:06

Analytical Method: BTEX by EPA 8021B

Seq Number: 3143258

MB Sample Id: 7715911-1-BLK

Matrix: Solid

LCS Sample Id: 7715911-1-BKS

Prep Method: SW5035A

Date Prep: 11.24.2020

LCSD Sample Id: 7715911-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.107	107	0.104	104	70-130	3	35	mg/kg	11.24.2020 10:40	
Toluene	<0.00200	0.100	0.0982	98	0.0974	97	70-130	1	35	mg/kg	11.24.2020 10:40	
Ethylbenzene	<0.00200	0.100	0.101	101	0.101	101	71-129	0	35	mg/kg	11.24.2020 10:40	
m,p-Xylenes	<0.00400	0.200	0.208	104	0.205	103	70-135	1	35	mg/kg	11.24.2020 10:40	
o-Xylene	<0.00200	0.100	0.102	102	0.101	101	71-133	1	35	mg/kg	11.24.2020 10:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		102		100		70-130	%	11.24.2020 10:40
4-Bromofluorobenzene	121		110		108		70-130	%	11.24.2020 10:40

Analytical Method: BTEX by EPA 8021B

Seq Number: 3143258

Parent Sample Id: 678846-001

Matrix: Soil

MS Sample Id: 678846-001 S

Prep Method: SW5035A

Date Prep: 11.24.2020

MSD Sample Id: 678846-001 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	0.107	107	0.0881	88	70-130	19	35	mg/kg	11.24.2020 13:34	
Toluene	<0.00200	0.100	0.0960	96	0.0781	78	70-130	21	35	mg/kg	11.24.2020 13:34	
Ethylbenzene	<0.00200	0.100	0.0934	93	0.0728	73	71-129	25	35	mg/kg	11.24.2020 13:34	
m,p-Xylenes	<0.00401	0.200	0.192	96	0.144	72	70-135	29	35	mg/kg	11.24.2020 13:34	
o-Xylene	<0.00200	0.100	0.0928	93	0.0711	71	71-133	26	35	mg/kg	11.24.2020 13:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		101		70-130	%	11.24.2020 13:34
4-Bromofluorobenzene	105		112		70-130	%	11.24.2020 13:34

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: 1678952

www.xenco.com Page ____ of ____

Project Manager:	<i>James Morrissey</i>	Bill to: (if different)	Kyle Littell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 704-5178	Email:	jmorrissey@ltenv.com tcasey@ltenv.com klenings@ltenv.com

Program: <input type="checkbox"/> UST/PTST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: NM Reporting Level: <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> PRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:		Work Order Comments TAT starts the day received by the lab, if received by 4:30pm
---	--	---

Project Name:	PLU 303H CTS	Turn Around	<input checked="" type="checkbox"/>
Project Number:	012920144	Routine	<input type="checkbox"/>
P.O. Number:		Rush:	<input type="checkbox"/>
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Temperature (°C):	1.0 / 0.8	Thermometer ID	ELUM-003
	Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2
	Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Total Containers:	1

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth
FSOS-A	S	11-24-20	0940	0.5'

Number of Containers

TPH (EPA 8015)	X
BTEX (EPA 8021)	X
Chloride (EPA 300.0)	X

ANALYSIS REQUEST

Work Order Notes

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
 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

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

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

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11.24.2020 11.37.00 AM

Work Order #: 678952

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)?	.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

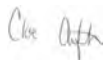
Samples received in bulk containers.

*** 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: 11.24.2020

Checklist reviewed by:



Jessica Kramer

Date: 11.25.2020

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
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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 12994

CONDITIONS OF APPROVAL

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland, TX79707	OGRID: 5380	Action Number: 12994	Action Type: C-141
OCD Reviewer ceads	Condition None		