

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	NRM2002150698
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

T3DYJ-191120-C-1410

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 32.210400 Longitude -103.831698
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Poker Lake Unit CVS JV BS #010H	Site Type	Well Location
Date Release Discovered	11/04/2019	API# (if applicable)	30-015-39846

Unit Letter	Section	Township	Range	County
B	24	24S	30E	EDDY

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 7.5	Volume Recovered (bbls) 5.6
☒ Produced Water	Volume Released (bbls) 67.47	Volume Recovered (bbls) 50.4
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Drilling personnel discovered a flowline release due to corrosion. Total fluid on the ground was 74.97 bbls and vacuum trucks recovered 56 bbls. Additional third party resources have been retained to assist in the remediation

State of New Mexico
Oil Conservation Division

Incident ID	NRM2002150698
District RP	
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? YES – An unauthorized release of fluid over 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 Amy Ruth : to Mike Bratcher; Rob Hamlet; Victoria Venegas; blm_nm_cfo_spill@blm.gov; "Griswold, Jim, EMNRD" on 11/5/2019.	

Initial Response

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

☒ The source of the release has been stopped.	
☒ The impacted area has been secured to protect human health and the environment.	
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: N/A	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Kyle Littrell</u>	Title: <u>SH&E Supervisor</u>
Signature: 	Date: <u>11/20/2019</u>
email: <u>Kyle_Littrell@xtoenergy.com</u>	Telephone: _____
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>1/21/2019</u>

Location:	PLU CVS JV BS #10H flowline	
Spill Date:	11/4/2019	
MAIN POOL		
Approximate Area =	543.00	sq. ft.
Average Saturation (or depth) of spill =	8.00	inches
Approximate oil % =	10.00	
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Oil =	6.57	bbls
Total Produced Water =	59.10	bbls
OUTER RING OF POOL		
Approximate Area =	1421.00	sq. ft.
Average Saturation (or depth) of spill =	1.50	inches
Approximate oil % =	10.00	
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Oil =	0.47	bbls
Total Produced Water =	4.27	bbls
POOLED AREAS		
Approximate Area =	519.00	sq. ft.
Average Saturation (or depth) of spill =	1.00	inches
Approximate oil % =	10.00	
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Oil =	0.12	bbls
Total Produced Water =	1.04	bbls
SHALLOW RUN OFF		
Approximate Area =	3053.00	sq. ft.
Average Saturation (or depth) of spill =	0.50	inches
Approximate oil % =	10.00	
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Oil =	0.34	bbls
Total Produced Water =	3.06	bbls
TOTAL VOLUME OF LEAK		
Total Oil =	7.50	bbls
Total Produced Water =	67.47	bbls
VOLUME RECOVERED		
Total Oil =	5.60	bbls
Total Produced Water =	50.40	bbls

NRM2002150698

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NRM2002150698
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: _____ Date: 8-28-2020

email: Kyle_Littrell@xtoenergy.com Telephone: (432)-221-7331

OCD Only

Received by: _____ Date: _____

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District RP	
Facility ID	
Application ID	

Closure

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

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

- ☒ 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: _____

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____



LT Environmental, Inc.

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

August 28, 2020

Mr. Mike Bratcher
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

**RE: Closure Request
Poker Lake Unit CVS JV BS #010H
Incident Number NRM2002150698
Eddy County, New Mexico**

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, soil sampling, and excavation activities at the Poker Lake Unit CVS JV BS #010H (Site) in Unit B, Section 24, Township 24 South, Range 30 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 the release of produced water and crude oil at the Site. Based on 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 NRM2002150698.

RELEASE BACKGROUND

On November 4, 2019, corrosion of a flow line resulted in the release of approximately 67.47 bbls (barrels) of produced water and 7.5 bbls of crude oil onto the caliche well pad and into the pasture area adjacent to the well pad. A vacuum truck was dispatched to the Site to recover the free-standing fluid; approximately 50.4 bbls of produced water and 5.6 bbls of crude oil were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on November 20, 2019 and was assigned Incident Number NRM2002150698.

SITE CHARACTERIZATION

LTE 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 nearest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 321334103494901, located approximately 1.09 miles north of the Site. The groundwater well has a depth to groundwater of 367 feet bgs and a total depth of 500 feet bgs. Ground surface elevation at the groundwater well location is 3,522 feet above mean sea level (amsl), which is



Bratcher, M.
Page 2

approximately 45 feet higher in elevation than the Site. There are eight additional groundwater wells within a 3.5-mile radius that indicate regional depth to groundwater is greater than 100 feet bgs. New Mexico Office of the State Engineer (NMOSE) well C-03960, located 3.15 miles west of the Site, was most recently measured in November 2016 and had a reported depth to groundwater of 250 feet bgs.

Although there is a United State Geological Survey (USGS) well approximately 2 miles to the northeast with depth to water reported as 74 feet bgs, the regional trend does not support shallow groundwater less than 100 feet bgs at this Site. All water wells used for depth to groundwater determination are depicted on Figure 1 and are referenced in in Attachment 1. Depth to groundwater data identified on the map illustrates the documented trend of increasing depth to groundwater with increased distance from the Pecos River. The Pecos River is located approximately 8.85 miles west of the Site and is not shown on Figure 1. When viewed regionally using potentiometric contours, the Site falls in an area with depth to groundwater greater than 400 feet with four corresponding data points within 3 miles of the Site. To support this argument, nearby XTO release locations for which NMOCD has approved a depth to groundwater determination of greater than 100 feet are also included on Figure 1.

The closest continuously flowing water or significant watercourse to the Site is dry wash located approximately 3,015 feet northeast 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 area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

A closure criteria of 600 mg/kg chloride was applied to the top 4 feet the pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES



Bratcher, M.
Page 3

On November 15, 2019, LTE personnel evaluated the release extent based on information provided on the Form C-141 and visual observations. LTE personnel collected eight preliminary soil samples (SS01 through SS08) 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) unit and are depicted on Figure 2.

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped 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 and TPH-DRO, TPH-oil range organics (ORO) following EPA Method 8015M/D, and chloride following EPA Method 300.0.

Based on the laboratory analytical results for preliminary soil samples SS01 through SS08, excavation of impacted soil was required. Photographic documentation was conducted during the Site visit. A photographic log is included in Attachment 2.

EXCAVATION AND DELINEATION SOIL SAMPLING ACTIVITIES

LTE personnel returned to the Site to oversee excavation activities as indicated by visual observations, field screening activities, and laboratory analytical results for the preliminary soil samples. Excavation activities were performed using a track-mounted backhoe and transport vehicle. The excavation occurred in the release area on the well pad and in the adjacent pasture. To direct excavation activities, LTE screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively.

Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. A total of 42 composite floor soil samples (FS01 through FS42) were collected from the floor of the excavation. Floor samples were collected from depths ranging from 2 feet to 4 feet bgs. Sidewall samples (SW01 through SW15, SW06A, and SW06B) were collected from depths ranging from the ground surface to 4 feet bgs. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and final excavation soil sample locations are presented on Figure 3.



Bratcher, M.
Page 4

The excavation measured approximately 8,500 square feet. A total of approximately 1,260 cubic yards of impacted soil were removed from the excavation. The impacted soil was transported and properly disposed of at the R360 Facility located in Hobbs, New Mexico. After completion of confirmation soil sampling, the excavation was secured with fencing.

ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples SS01 through SS08 indicated that TPH-GRO/TPH-DRO, TPH, and/or chloride concentrations exceeded the Closure Criteria or Reclamation Standard. Based on laboratory analytical results for the preliminary soil samples, excavation of impacted soil was conducted.

Laboratory analytical results for excavation sidewall samples SW02, SW06, SW06A, SW12, and SW14 indicated that chloride concentrations initially exceeded the Reclamation Standard applied to the top four feet of the subsurface off pad. Sample SW12 also exceeded the Closure Criteria for TPH-GRO/TPH-DRO. Additional soil was removed from these areas and subsequent sidewall samples SW06B and SW15 were collected. Sample SW06B replaced SW02 and SW06, and SW06A. Sample SW15 replaced SW14. The area around SW12 was fully excavated to expose the flow line and remove the sidewall. At the completion of excavation activities, all floor samples (FS01 through FS42) and final sidewall samples SW01, SW03 through SW05, SW06B, SW07 through SW11, SW13, and SW15 were compliant with Closure Criteria. In addition, confirmation samples collected in the top 4 feet of pasture areas were compliant with the Reclamation Standard. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 3.

CLOSURE REQUEST

Site assessment and excavation activities were conducted to address the November 4, 2019, release of produced water and crude oil. Laboratory analytical results for the 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 Closure Criteria. Additionally, soil samples collected in the pasture from the top four feet of the subsurface were compliant with the reclamation standard requiring no waste containing material in the top 4 feet. 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. The pasture excavation will be re-seeded with an approved BLM seed mixture in the fall.

Initial response efforts, which included removal of free-standing fluids via hydrovac and excavation of impacted soil have mitigated impacts at this Site. Depth to groundwater has been determined to be greater than 100 feet bgs based on regional trends and previous approvals by NMOCD. No other sensitive receptors were identified near the release extent. LTE and XTO



Bratcher, M.
Page 5

believe these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests no further action for Incident Number NRM2002150698.

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

Sincerely,

LT ENVIRONMENTAL, INC.

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

Elizabeth A. Naka
Staff Environmental Scientist

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

Ashley L. Ager, P.G.
Senior Geologist

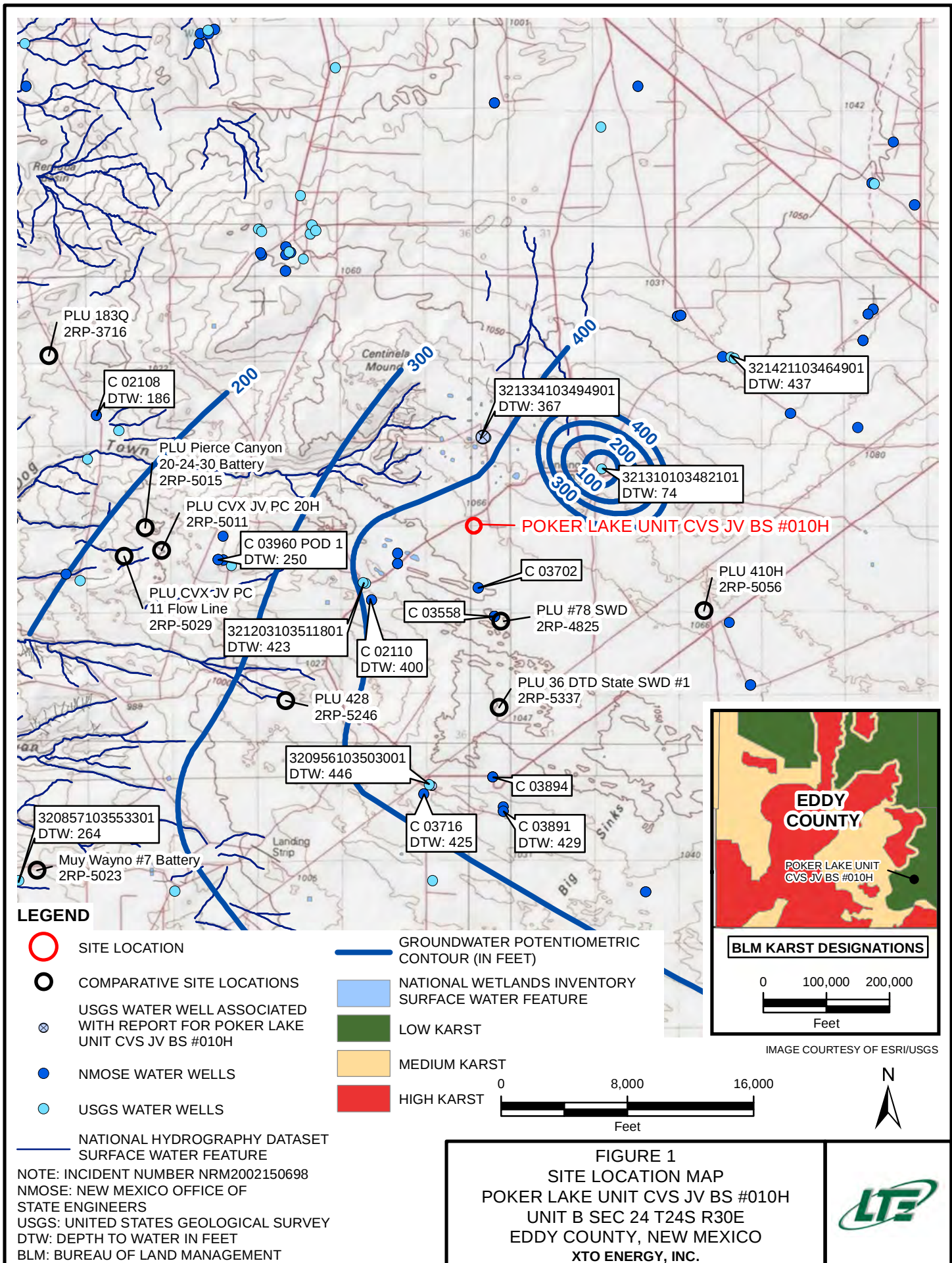
cc: Kyle Littrell, XTO
Bureau of Land Management – New Mexico
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

Appendices:

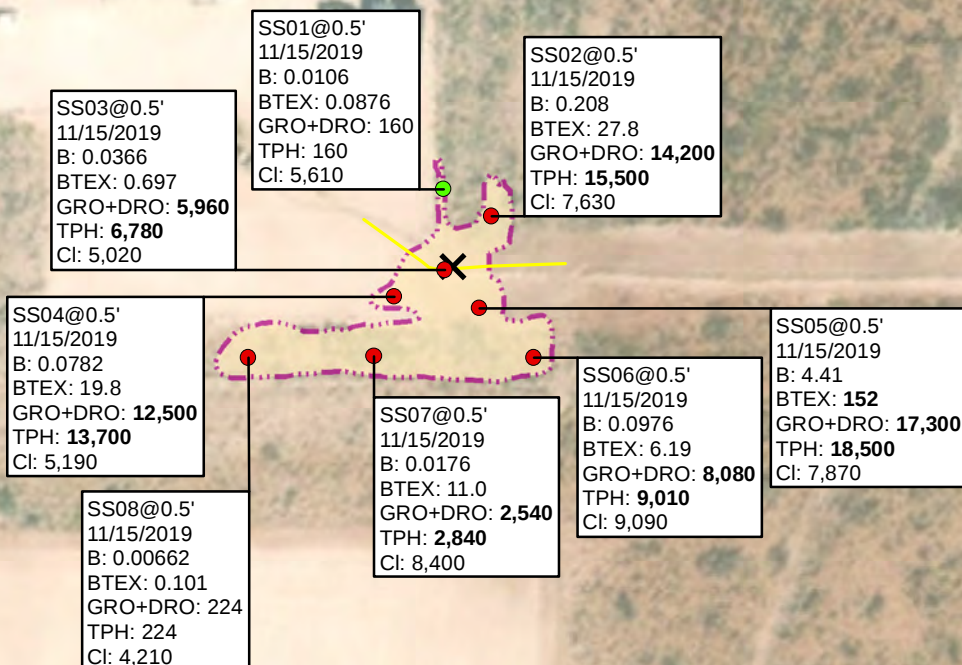
Figure 1 Site Location Map
Figure 2 Preliminary Soil Sample Locations
Figure 3 Excavation Soil Sample Locations
Table 1 Soil Analytical Reports
Attachment 1 Referenced Well Records
Attachment 2 Photographic Log
Attachment 3 Laboratory Analytical Reports

FIGURES





SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
 SAMPLE DATE
 NMOCD TABLE 1 CLOSURE CRITERIA (NMAC 19.15.29.12)
 B = 10 mg/kg
 BTEX = 50 mg/kg
 GRO+DRO = 1,000 mg/kg
 TPH = 2,500 mg/kg
 Cl = 20,000 mg/kg
 NMOCD RECLAMATION CLOSURE CRITERIA FOR TOP FOUR
 FEET OF AREAS TO BE RECLAIMED (NMAC 19.15.29.13.D (1))
 Cl = 600 mg/kg
 ALL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)
 <: INDICATES RESULT IS LESS THAN THE
 LABORATORY REPORTING LIMIT
BOLD: INDICATES RESULT EXCEEDS THE
 APPLICABLE REGULATORY CLOSURE CRITERIA



LEGEND

- X** RELEASE LOCATION
- PRELIMINARY SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA

— GAS/PIPELINE

 RELEASE EXTENT

B: BENZENE
 BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
 GRO: GASOLINE RANGE ORGANICS
 DRO: DIESEL RANGE ORGANICS
 TPH: TOTAL PETROLEUM HYDROCARBONS
 Cl: CHLORIDE
 NMAC: NEW MEXICO ADMINISTRATIVE CODE
 NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
 NOTE: REMEDIATION PERMIT NUMBER NRM2002150698

IMAGE COURTESY OF ESRI

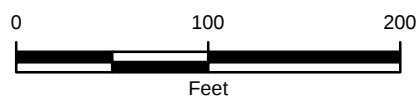


FIGURE 2
 PRELIMINARY SOIL SAMPLE LOCATIONS
 POKER LAKE UNIT CVS JV BS #010H
 UNIT B SEC 24 T24S R30E
 EDDY COUNTY, NEW MEXICO
 XTO ENERGY, INC.



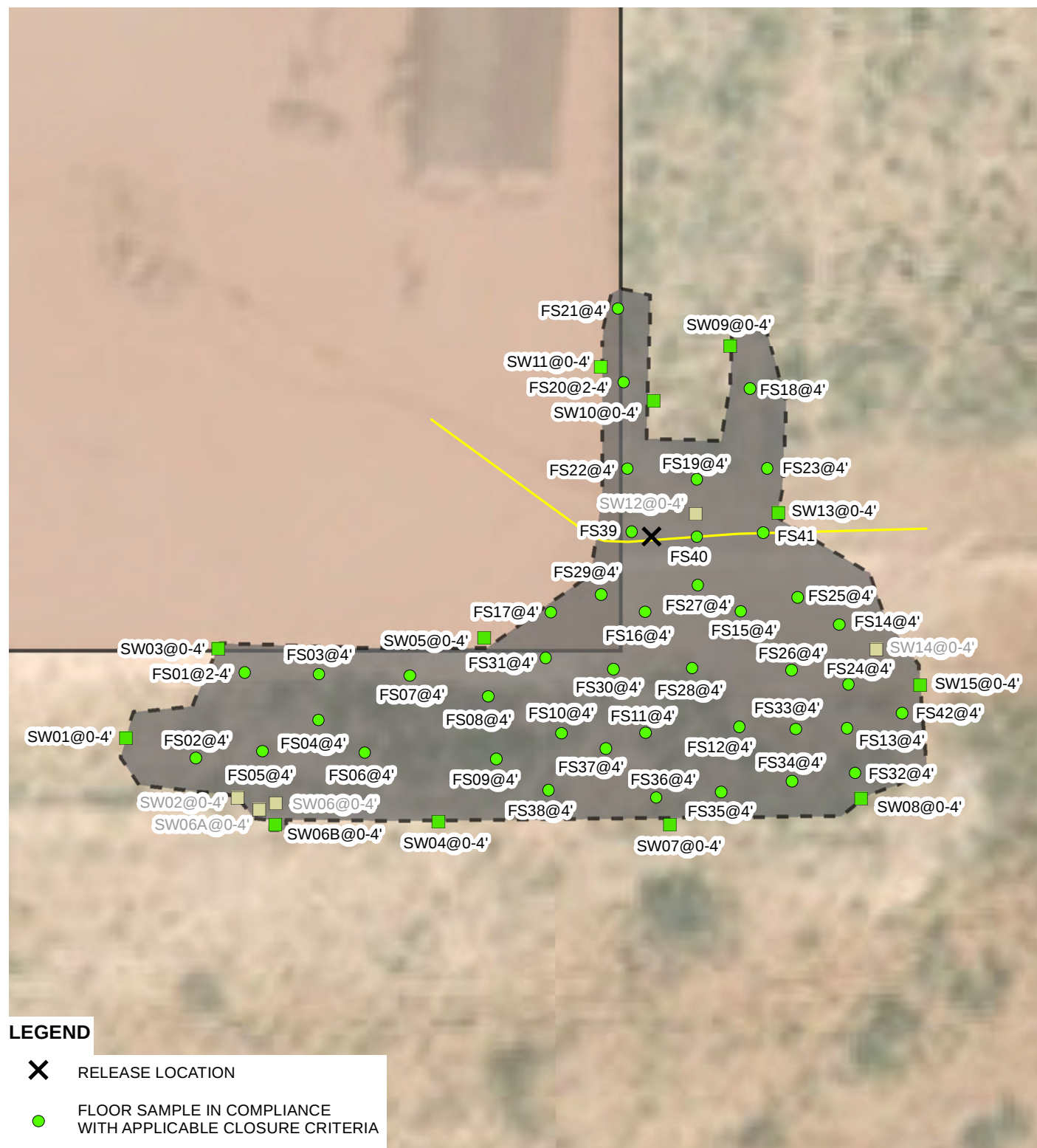


IMAGE COURTESY OF ESRI

LEGEND

RELEASE LOCATION

FLOOR SAMPLE IN COMPLIANCE
WITH APPLICABLE CLOSURE CRITERIASIDEWALL SAMPLE IN COMPLIANCE
WITH APPLICABLE CLOSURE CRITERIASIDEWALL SAMPLE WITH CONCENTRATIONS
PREVIOUSLY EXCEEDING APPLICABLE CLOSURE
CRITERIA AND HAS BEEN EXCAVATED

— GAS/PIPELINE



EXCAVATION EXTENT

NOTE: INCIDENT NUMBER NRM2002150698
 SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
 TEXT: INDICATES SOIL REPRESENTED BY SAMPLE
 THAT WAS REMOVED

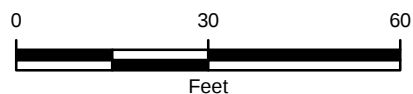


FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
POKER LAKE UNIT CVS JV BS #010H
UNIT B SEC 24 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.



TABLES



TABLE 1
SOIL ANALYTICAL RESULTS

POKER LAKE UNIT CVS JV BS #010H
INCIDENT NUMBER NRM2002150698
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000
SS01	0.5	11/15/2019	0.0106	0.0273	0.00776	0.0419	0.0876	<49.9	160	<49.9	160	160	5,610*
SS02	0.5	11/15/2019	0.208	5.43	3.65	18.6	27.8	1,990	12,200	1,300	14,200	15,500	7,630*
SS03	0.5	11/15/2019	0.0366	0.228	0.0776	0.354	0.697	144	5,820	814	5,960	6,780	5,020*
SS04	0.5	11/15/2019	0.0782	1.47	2.61	15.7	19.8	1,650	10,800	1,240	12,500	13,700	5,190*
SS05	0.5	11/15/2019	4.41	41.0	16.3	90.0	152	4,350	12,900	1,280	17,300	18,500	7,870*
SS06	0.5	11/15/2019	0.0976	1.16	0.287	4.65	6.19	586	7,490	936	8,080	9,010	9,090*
SS07	0.5	11/15/2019	0.0176	0.826	1.48	8.70	11.0	352	2,190	300	2,540	2,840	8,400*
SS08	0.5	11/15/2019	0.00662	0.0209	0.0107	0.0632	0.101	<49.8	224	<49.8	224	224	4,210*
FS01	2 - 4	01/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	357*
FS02	4	01/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	6,050
FS03	4	01/31/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	2,310
FS04	4	01/31/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	3,210
FS05	4	01/31/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	5,140
FS06	4	02/04/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	909
FS07	4	02/04/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	388
FS08	4	02/04/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	2,460
FS09	4	02/04/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	2,790
FS10	4	02/04/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	4,570
FS11	4	02/04/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	101	<50.0	101	101	4,950
FS12	4	02/04/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	88.0	<49.9	88.0	88.0	6,740
FS13	4	02/04/2020	<0.00199	<0.00199	<0.00199	0.00231	0.00231	<50.0	139	<50.0	139	139	6,180
FS14	4	02/04/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	241	<50.0	241	241	5,160

TABLE 1
SOIL ANALYTICAL RESULTS

POKER LAKE UNIT CVS JV BS #010H
INCIDENT NUMBER NRM2002150698
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000
FS15	4	02/04/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	2,530
FS16	4	02/04/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	1,200
FS17	4	02/04/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	1,080
FS18	4	02/04/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	134	<50.0	134	134	174
FS19	4	02/04/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	97.3	<49.9	97.3	97.3	86.8
FS20	2 - 4	02/04/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	204	<49.9	204	204	461*
FS21	4	05/19/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	81.4
FS22	4	05/19/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	195
FS23	4	05/19/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	129
FS24	4	05/19/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	78.6
FS25	4	05/19/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	74.8
FS26	4	05/19/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	791
FS27	4	05/19/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	968
FS28	4	05/19/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	485
FS29	4	05/20/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	545
FS30	4	05/20/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	1,010
FS31	4	05/20/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	13,000
FS32	4	05/20/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	154	<50.2	154	154	8,530
FS33	4	05/20/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	2,750
FS34	4	05/20/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	3,600
FS35	4	05/20/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	263
FS36	4	05/20/2020	<0.00202	0.0310	<0.00202	<0.00202	0.0310	<49.9	<49.9	<49.9	<49.9	<49.9	63.4

TABLE 1
SOIL ANALYTICAL RESULTS

POKER LAKE UNIT CVS JV BS #010H
INCIDENT NUMBER NRM2002150698
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000
FS37	4	05/20/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	127
FS38	4	05/20/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	124	<50.2	124	124	2,020
FS39	4	07/23/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	310
FS40	4	07/23/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	369
FS41	4	07/23/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	465
FS42	4	08/03/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	348
SW01	0 - 4	01/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	72.8
SW02	0 - 4	01/31/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	747*
SW03	0 - 4	01/31/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	117*
SW04	0 - 4	2/3/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	396*
SW05	0 - 4	02/04/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	105*
SW06	0 - 4	02/04/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	3,480*
SW06 A	0 - 4	05/05/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	2,030*
SW06 B	0 - 4	05/05/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	137*
SW07	0 - 4	02/04/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	545*
SW08	0 - 4	02/04/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	494*
SW09	0 - 4	02/04/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	230*
SW10	0 - 4	02/04/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	12.8*
SW11	0 - 4	05/19/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	82.6
SW12	0 - 4	05/19/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	1,020	154	1,020	1,170	3,610*
SW13	0 - 4	05/19/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	249*
SW14	0 - 4	05/19/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	2,740*

**TABLE 1
SOIL ANALYTICAL RESULTS**

**POKER LAKE UNIT CVS JV BS #010H
INCIDENT NUMBER NRM2002150698
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.**

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000
SW15	0 - 4	08/03/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	229*

Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

MRO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard

< - indicates result is below laboratory reporting limits

Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018

Text

 - indicates removal of impacted soil

* - indicates sample was collected in area to be reclaimed after remediation is complete; closure criteria for chloride concentration in the top 4 feet of soil is 600 mg/kg

ATTACHMENT 1: REFERENCED WELL RECORDS



USGS 321334103494901 24S.30E.12.432344

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°13'34", Longitude 103°49'49" NAD27

Eddy County, New Mexico , Hydrologic Unit 13060011

Well depth: 500 feet

Land surface altitude: 3,522 feet above NAVD88.

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

AVAILABLE DATA:

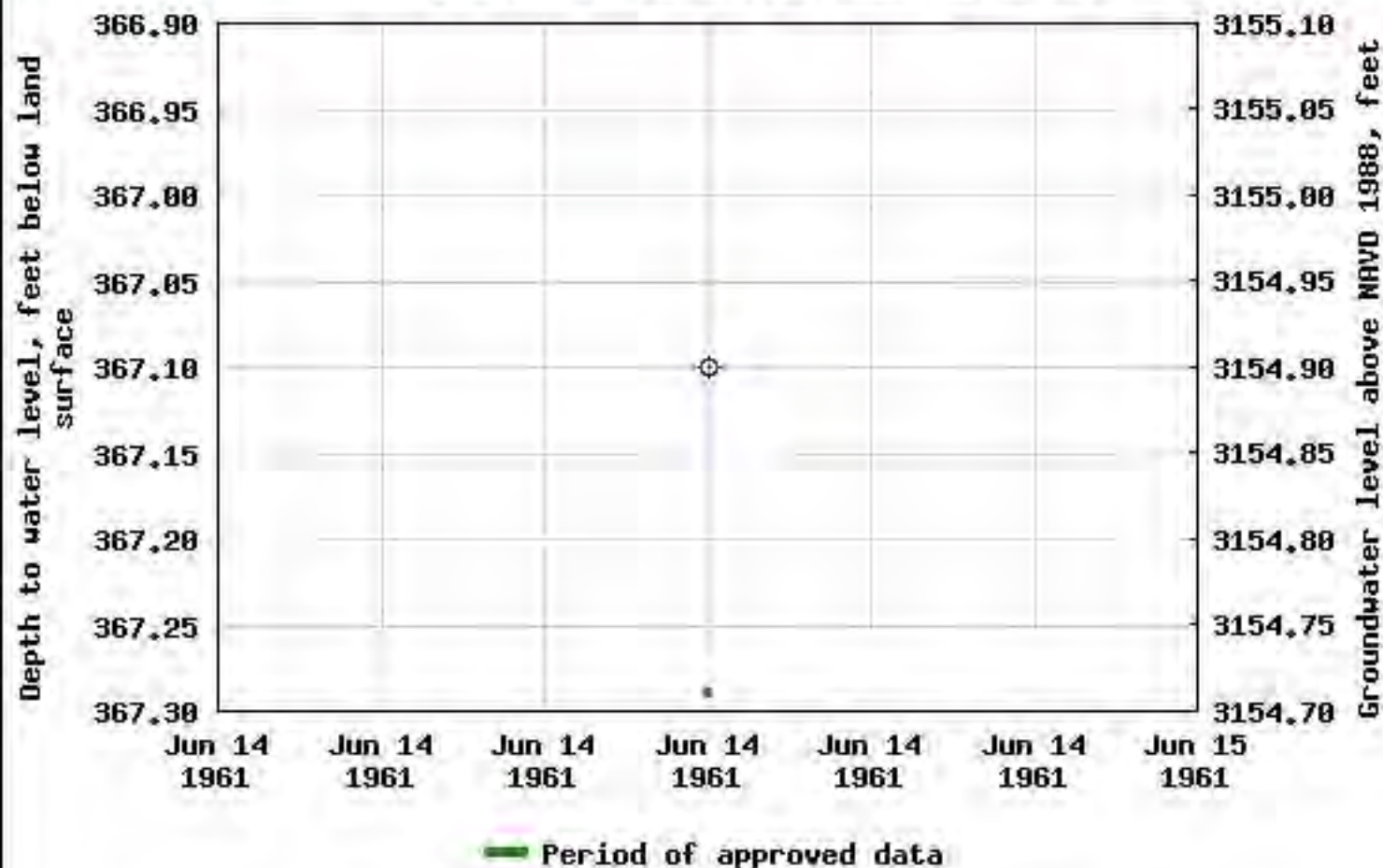
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1961-06-14	1961-06-14	1
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

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

USGS 321334103494901 24S.30E.12.432344



USGS 320956103503001 24S.30E.36.33333

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°09'56", Longitude 103°50'30" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 480 feet
Land surface altitude: 3,408 feet above NAVD88.
Well completed in "Rustler Formation" (312RSLR) local aquifer

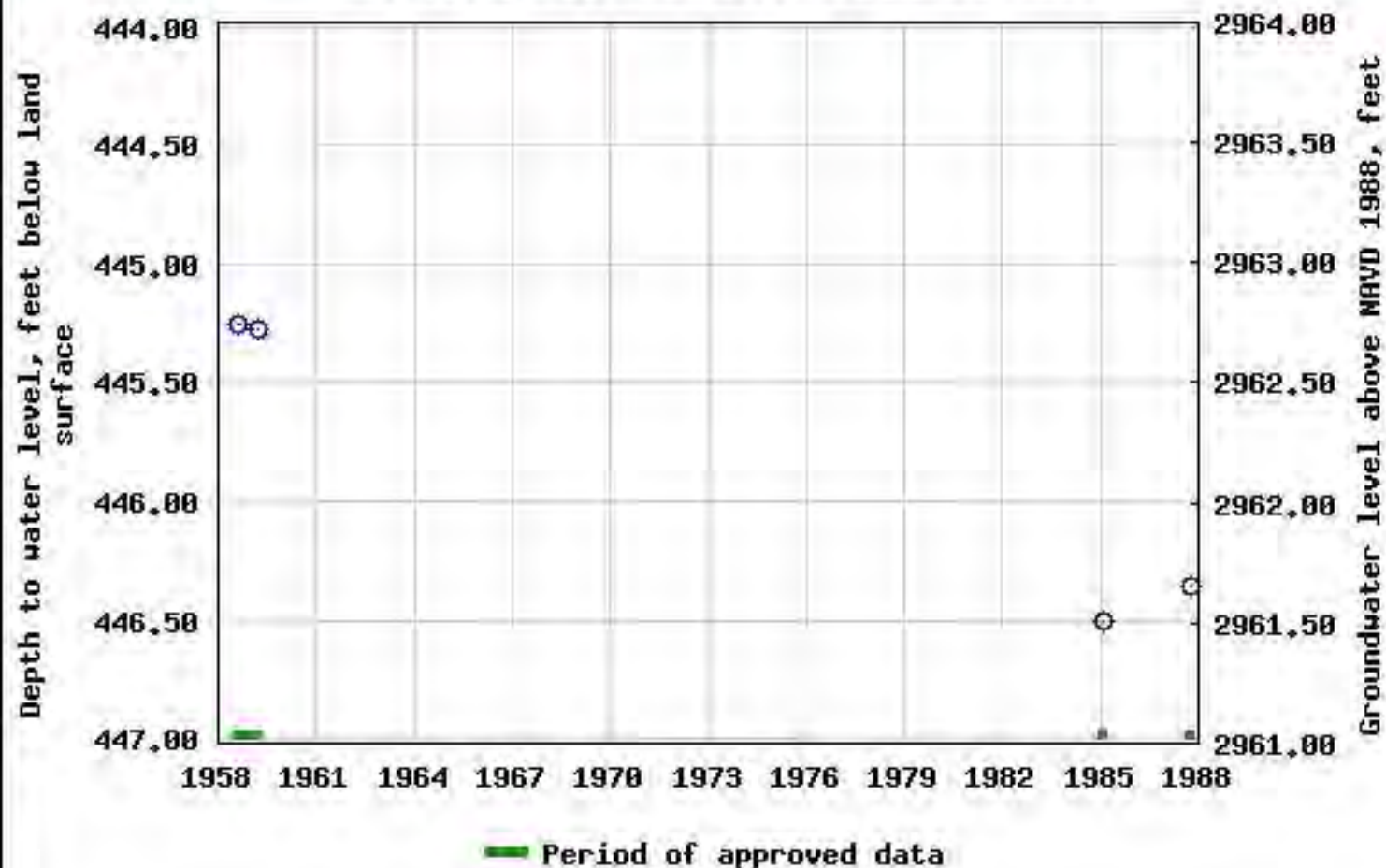
AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1958-08-19	1987-10-15	4
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

USGS 320956103503001 24S.30E.36.33333



USGS 321203103511801 24S.30E.23.3124143

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°12'03", Longitude 103°51'18" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 474 feet
Land surface altitude: 3,423 feet above NAVD88.
Well completed in "Rustler Formation" (312RSLR) local aquifer

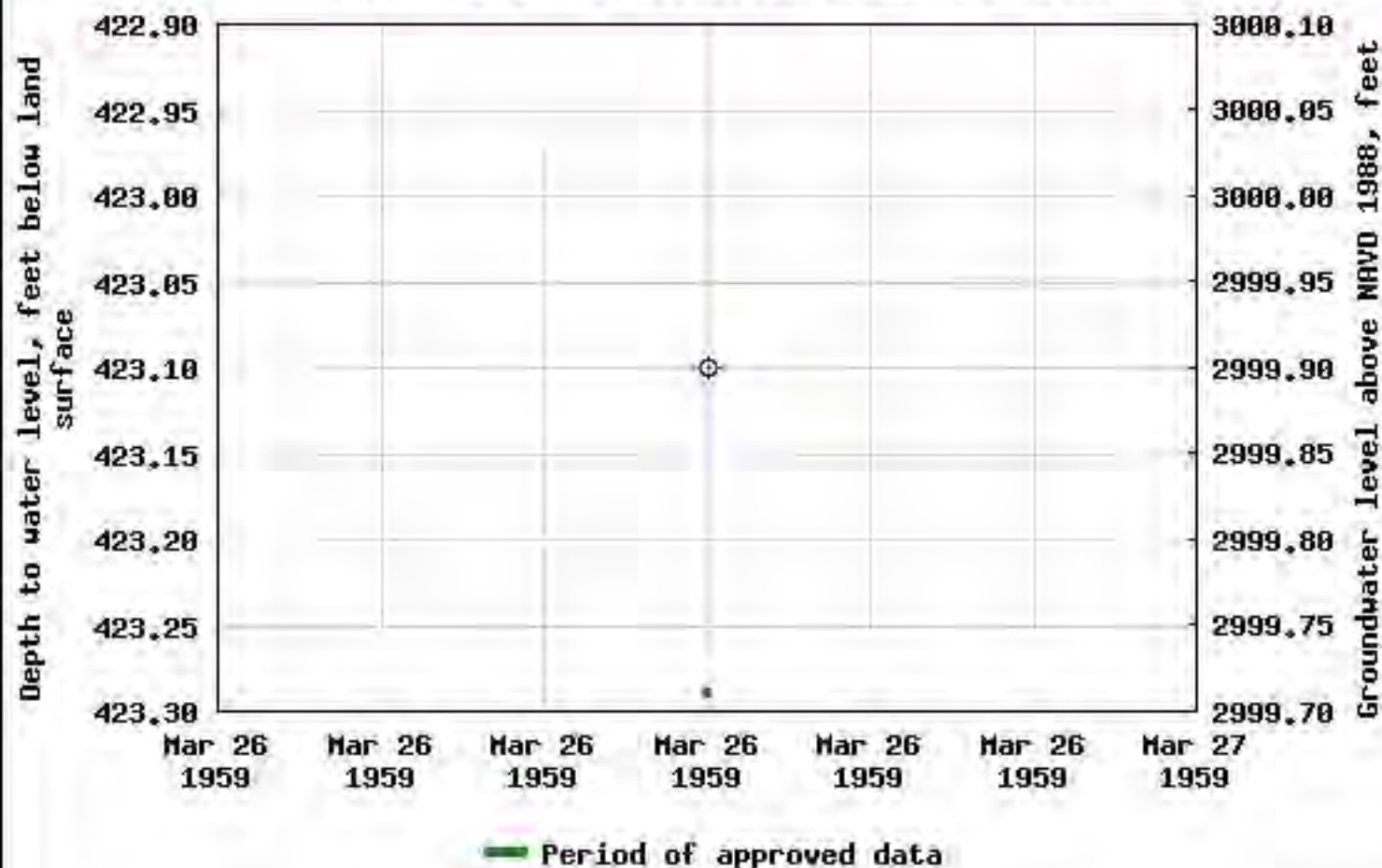
AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1959-03-26	1959-03-26	1
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

USGS 321203103511801 24S.30E.23.3124143



USGS 321214103525501 24S.30E.21.23144

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°12'14", Longitude 103°52'55" NAD27

Eddy County, New Mexico , Hydrologic Unit 13060011

Well depth: not determined.

Land surface altitude: 3,371 feet above NAVD88.

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

AVAILABLE DATA:

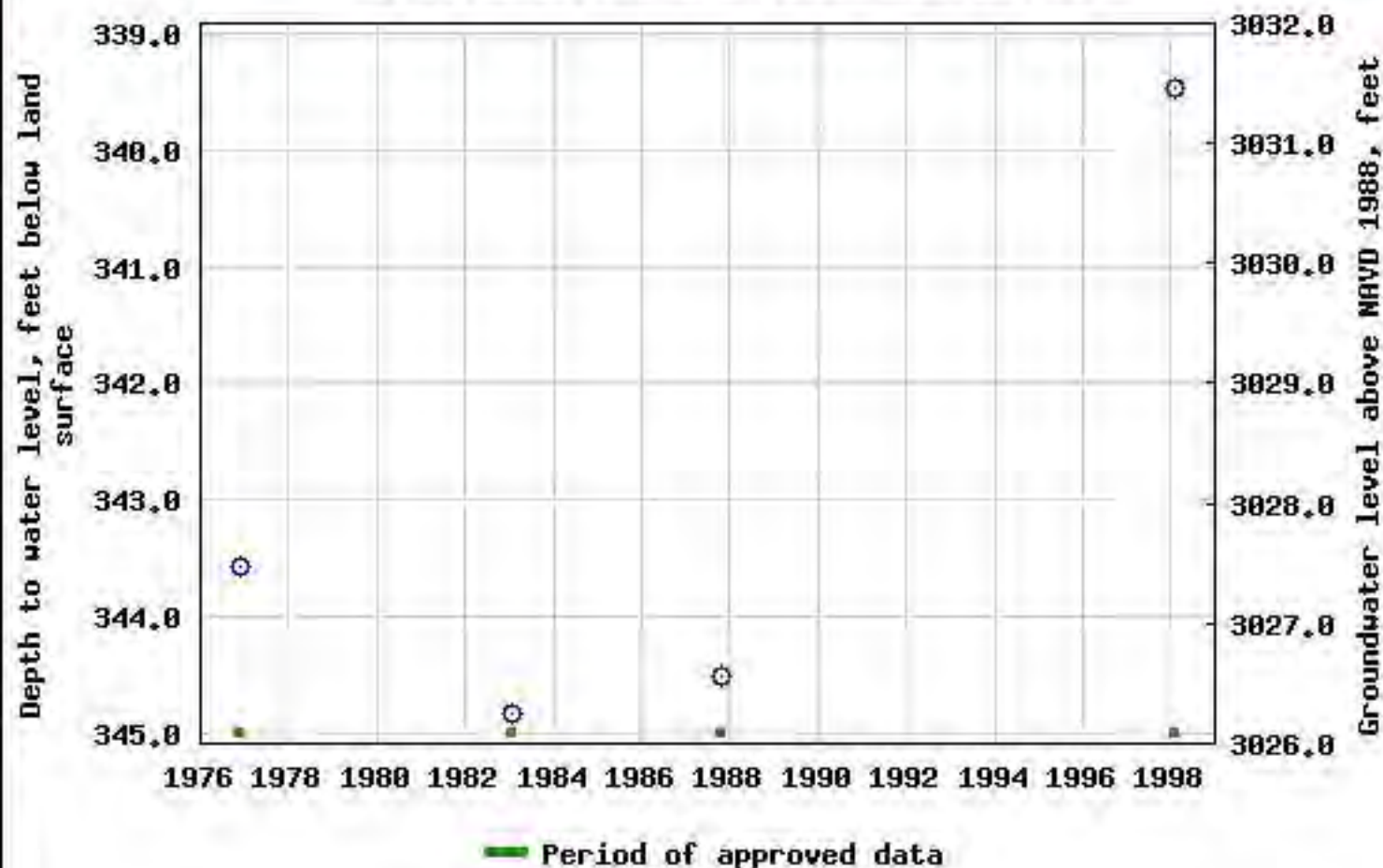
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1976-12-01	1998-01-28	4
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

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

USGS 321214103525501 24S.30E.21.23144



USGS 321310103482101 24S.31E.17.13120

Available data for this site

Well Site

DESCRIPTION:

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

Eddy County, New Mexico , Hydrologic Unit 13060011

Well depth: not determined.

Land surface altitude: 3,530.00 feet above NGVD29.

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

AVAILABLE DATA:

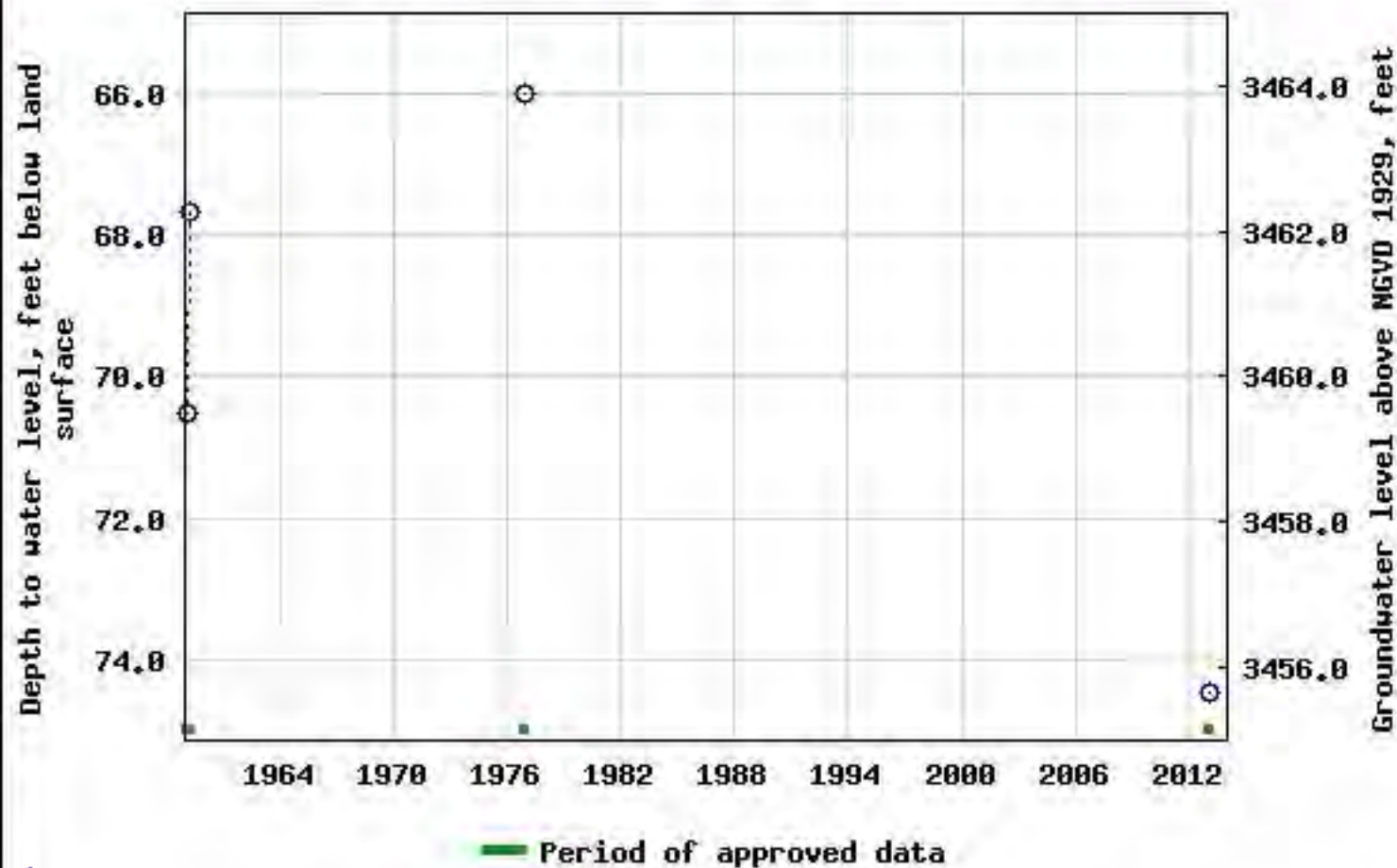
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1959-02-03	2013-01-17	4
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

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

USGS 321310103482101 24S.31E.17.13120





New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)					(NAD83 UTM in meters)	
		(quarters are smallest to largest)					X	Y
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	
	C 02110	4	3	23	24S	30E	608036	3562950* 
Driller License:		Driller Company:						
Driller Name:		UNKNOWN						
Drill Start Date:		Drill Finish Date:		12/31/1967		Plug Date:		
Log File Date:		PCW Rcv Date:				Source:		
Pump Type:		Pipe Discharge Size:				Estimated Yield: 15 GPM		
Casing Size: 7.00		Depth Well:		600 feet		Depth Water: 400 feet		

*UTM location was derived from PLSS - see Help

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.

8/25/20 10:08 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 03716 POD1	4	2	2	02	25S	30E	609069	3559211 
x									
Driller License:	1229	Driller Company:				CARTER'S WELL DRILLING			
Driller Name:	RICHARD CARTER								
Drill Start Date:	02/05/2014	Drill Finish Date:				03/03/2014	Plug Date:		
Log File Date:	03/12/2014	PCW Rcv Date:				Source:			Shallow
Pump Type:		Pipe Discharge Size:				Estimated Yield:			50 GPM
Casing Size:		Depth Well:				600 feet	Depth Water:		425 feet
x									
Water Bearing Stratifications:					Top	Bottom	Description		
					442	600	Sandstone/Gravel/Conglomerate		
y									

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8/25/20 10:09 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)				(NAD83 UTM in meters)			
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C	03891 POD1	4	4	2	01	25S	30E	610608	3558890 

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	

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

Casing Perforations:	Top	Bottom
	460	635

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8/25/20 10:09 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)						(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C	03960 POD1	1	3	2	21	24S	30E	605062	3563712 

Driller License:	1753	Driller Company:	VANGUARD WATER WELLS		
Driller Name:	JACOBO FRIESSEN				
Drill Start Date:	11/12/2016	Drill Finish Date:	11/12/2016	Plug Date:	
Log File Date:	11/17/2016	PCW Rcv Date:		Source:	Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield:	
Casing Size:	6.00	Depth Well:	475 feet	Depth Water:	250 feet

Water Bearing Stratifications:	Top	Bottom	Description
	182	250	Sandstone/Gravel/Conglomerate
	402	460	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	250	290
	395	435

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.

8/25/20 10:07 AM

POINT OF DIVERSION SUMMARY

ATTACHMENT 2: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG



Photograph 1: View of release extent north of point of release.



Photograph 2: View of release extent south and west of point of release, facing west.



Photograph 3: View of excavation north of point of release



Photograph 4: View of excavation south and west of point of release, facing east.

PHOTOGRAPHIC LOG



Photograph 5: Southern view of excavation.



Photograph 6: Western view of excavation.



Photograph 7: Northern view of excavation.



Photograph 8: Eastern view of excavation.

ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS





Analytical Report 643425

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU CVX JV BS 10H

012919271

11.21.2019

Collected By: Client

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

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



11.21.2019

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **643425**

PLU CVX JV BS 10H

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 XENCO Report Number(s) 643425. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 643425 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Assistant

A Small Business and Minority Company

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

**Sample Cross Reference 643425****LT Environmental, Inc., Arvada, CO**

PLU CVX JV BS 10H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	11.15.2019 09:05	0.5 ft	643425-001
SS02	S	11.15.2019 09:10	0.5 ft	643425-002
SS03	S	11.15.2019 09:15	0.5 ft	643425-003
SS04	S	11.15.2019 09:20	0.5 ft	643425-004
SS05	S	11.15.2019 10:00	0.5 ft	643425-005
SS06	S	11.15.2019 10:05	0.5 ft	643425-006
SS07	S	11.15.2019 10:10	0.5 ft	643425-007
SS08	S	11.15.2019 10:15	0.5 ft	643425-008

**CASE NARRATIVE****Client Name: LT Environmental, Inc.****Project Name: PLU CVX JV BS 10H**

Project ID: 012919271
Work Order Number(s): 643425

Report Date: 11.21.2019
Date Received: 11.15.2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3108042 BTEX by EPA 8021B

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

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.

Samples affected are: 643425-006,643425-004,643425-007,643425-002,643425-003,643425-005.

Surrogate 1,4-Difluorobenzene recovered above QC limits. Matrix interferences is suspected.

Samples affected are: 643425-007,643425-006,643425-004.



Certificate of Analysis Summary 643425

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV BS 10H

Project Id: 012919271

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Fri 11.15.2019 14:36

Report Date: 11.21.2019 12:53

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	643425-001	643425-002	643425-003	643425-004	643425-005	643425-006
	<i>Field Id:</i>	SS01	SS02	SS03	SS04	SS05	SS06
	<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>	11.15.2019 09:05	11.15.2019 09:10	11.15.2019 09:15	11.15.2019 09:20	11.15.2019 10:00	11.15.2019 10:05
BTEX by EPA 8021B SUB: T104704400-19-19	<i>Extracted:</i>	11.19.2019 14:30	11.19.2019 14:30	11.19.2019 14:30	11.19.2019 14:30	11.19.2019 14:30	11.19.2019 14:30
	<i>Analyzed:</i>	11.20.2019 02:11	11.20.2019 02:31	11.20.2019 02:52	11.20.2019 03:12	11.20.2019 03:32	11.20.2019 03:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		0.0106 0.00200	0.208 0.00200	0.0366 0.00199	0.0782 0.00199	4.41 D 1.99	0.0976 0.00198
Toluene		0.0273 0.00200	5.43 D 0.200	0.228 0.00199	1.47 D 0.0398	41.0 D 1.99	1.16 D 0.0198
Ethylbenzene		0.00776 0.00200	3.65 D 0.200	0.0776 0.00199	2.61 D 0.0398	16.3 D 1.99	0.287 0.00198
m,p-Xylenes		0.0298 0.00399	13.7 D 0.399	0.258 0.00398	11.1 D 0.0797	65.7 D 3.98	4.28 D 0.0396
o-Xylene		0.0121 0.00200	4.85 D 0.200	0.0963 0.00199	4.58 D 0.0398	24.3 D 1.99	0.366 0.00198
Total Xylenes		0.0419 0.00200	18.6 0.200	0.354 0.00199	15.7 0.0398	90.0 1.99	4.65 0.00198
Total BTEX		0.0876 0.00200	27.8 0.00200	0.697 0.00199	19.8 0.00199	152 1.99	6.19 0.00198
Chloride by EPA 300 SUB: T104704400-19-19	<i>Extracted:</i>	11.20.2019 12:10	11.20.2019 12:10	11.20.2019 12:10	11.20.2019 12:10	11.20.2019 12:10	11.20.2019 12:10
	<i>Analyzed:</i>	11.20.2019 18:45	11.20.2019 19:05	11.20.2019 19:12	11.20.2019 19:19	11.20.2019 19:25	11.20.2019 19:32
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		5610 50.4	7630 49.6	5020 25.0	5190 25.3	7870 49.7	9090 50.3
TPH by SW8015 Mod SUB: T104704400-19-19	<i>Extracted:</i>	11.19.2019 16:00	11.19.2019 16:00	11.19.2019 16:00	11.19.2019 16:00	11.19.2019 16:00	11.19.2019 16:00
	<i>Analyzed:</i>	11.19.2019 18:42	11.20.2019 07:25	11.19.2019 19:24	11.20.2019 07:46	11.20.2019 08:07	11.20.2019 08:28
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	1990 250	144 49.8	1650 250	4350 250	586 250
Diesel Range Organics (DRO)		160 49.9	12200 250	5820 49.8	10800 250	12900 250	7490 250
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	1300 250	814 49.8	1240 250	1280 250	936 250
Total GRO-DRO		160 49.9	14200 250	5960 49.8	12500 250	17300 250	8080 250
Total TPH		160 49.9	15500 250	6780 49.8	13700 250	18500 250	9010 250

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

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

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 643425

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV BS 10H

Project Id: 012919271

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Fri 11.15.2019 14:36

Report Date: 11.21.2019 12:53

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	643425-007	643425-008				
	Field Id:	SS07	SS08				
	Depth:	0.5- ft	0.5- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	11.15.2019 10:10	11.15.2019 10:15				
BTEX by EPA 8021B SUB: T104704400-19-19	Extracted:	11.19.2019 14:30	11.19.2019 14:30				
	Analyzed:	11.20.2019 04:12	11.20.2019 04:32				
	Units/RL:	mg/kg RL	mg/kg RL				
	Benzene	0.0176 0.00201	0.00662 0.00200				
	Toluene	0.826 D 0.0402	0.0209 0.00200				
	Ethylbenzene	1.48 D 0.0402	0.0107 0.00200				
	m,p-Xylenes	6.12 D 0.0803	0.0435 0.00401				
	o-Xylene	2.58 D 0.0402	0.0197 0.00200				
	Total Xylenes	8.70 0.0402	0.0632 0.00200				
	Total BTEX	11.0 0.00201	0.101 0.00200				
Chloride by EPA 300 SUB: T104704400-19-19	Extracted:	11.20.2019 12:10	11.20.2019 12:10				
	Analyzed:	11.20.2019 19:38	11.20.2019 19:45				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		8400 50.3	4210 25.2				
TPH by SW8015 Mod SUB: T104704400-19-19	Extracted:	11.19.2019 16:00	11.19.2019 16:00				
	Analyzed:	11.19.2019 20:49	11.19.2019 21:10				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		352 49.9	<49.8 49.8				
Diesel Range Organics (DRO)		2190 49.9	224 49.8				
Motor Oil Range Hydrocarbons (MRO)		300 49.9	<49.8 49.8				
Total GRO-DRO		2540 49.9	224 49.8				
Total TPH		2840 49.9	224 49.8				

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

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

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: **SS01**
Lab Sample Id: 643425-001

Matrix: Soil
Date Collected: 11.15.2019 09:05

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108158

Date Prep: 11.20.2019 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5610	50.4	mg/kg	11.20.2019 18:45		10

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108108

Date Prep: 11.19.2019 16:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.19.2019 18:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	160	49.9	mg/kg	11.19.2019 18:42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.19.2019 18:42	U	1
Total GRO-DRO	PHC628	160	49.9	mg/kg	11.19.2019 18:42		1
Total TPH	PHC635	160	49.9	mg/kg	11.19.2019 18:42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	11.19.2019 18:42	
o-Terphenyl	84-15-1	108	%	70-135	11.19.2019 18:42	



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: **SS01**
Lab Sample Id: 643425-001

Matrix: Soil
Date Collected: 11.15.2019 09:05

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3108042

Prep Method: SW5030B

% Moisture:

Date Prep: 11.19.2019 14:30

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0106	0.00200	mg/kg	11.20.2019 02:11		1
Toluene	108-88-3	0.0273	0.00200	mg/kg	11.20.2019 02:11		1
Ethylbenzene	100-41-4	0.00776	0.00200	mg/kg	11.20.2019 02:11		1
m,p-Xylenes	179601-23-1	0.0298	0.00399	mg/kg	11.20.2019 02:11		1
o-Xylene	95-47-6	0.0121	0.00200	mg/kg	11.20.2019 02:11		1
Total Xylenes	1330-20-7	0.0419	0.00200	mg/kg	11.20.2019 02:11		1
Total BTEX		0.0876	0.00200	mg/kg	11.20.2019 02:11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.20.2019 02:11	
1,4-Difluorobenzene	540-36-3	116	%	70-130	11.20.2019 02:11	



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: SS02
Lab Sample Id: 643425-002

Matrix: Soil
Date Collected: 11.15.2019 09:10

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108158

Date Prep: 11.20.2019 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7630	49.6	mg/kg	11.20.2019 19:05		10

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108108

Date Prep: 11.19.2019 16:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	1990	250	mg/kg	11.20.2019 07:25		5
Diesel Range Organics (DRO)	C10C28DRO	12200	250	mg/kg	11.20.2019 07:25		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1300	250	mg/kg	11.20.2019 07:25		5
Total GRO-DRO	PHC628	14200	250	mg/kg	11.20.2019 07:25		5
Total TPH	PHC635	15500	250	mg/kg	11.20.2019 07:25		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-135	11.20.2019 07:25	
o-Terphenyl	84-15-1	123	%	70-135	11.20.2019 07:25	



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: **SS02**
Lab Sample Id: 643425-002

Matrix: **Soil**
Date Collected: 11.15.2019 09:10

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: **KTL**

Analyst: **KTL**

Seq Number: 3108042

Prep Method: SW5030B

% Moisture:

Date Prep: 11.19.2019 14:30

Basis: **Wet Weight**

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.208	0.00200	mg/kg	11.20.2019 02:31		1
Toluene	108-88-3	5.43	0.200	mg/kg	11.20.2019 12:37	D	100
Ethylbenzene	100-41-4	3.65	0.200	mg/kg	11.20.2019 12:37	D	100
m,p-Xylenes	179601-23-1	13.7	0.399	mg/kg	11.20.2019 12:37	D	100
o-Xylene	95-47-6	4.85	0.200	mg/kg	11.20.2019 12:37	D	100
Total Xylenes	1330-20-7	18.6	0.200	mg/kg	11.20.2019 12:37		100
Total BTEX		27.8	0.00200	mg/kg	11.20.2019 12:37		100
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	121	%	70-130	11.20.2019 02:31		
4-Bromofluorobenzene	460-00-4	757	%	70-130	11.20.2019 02:31	**	



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: SS03
Lab Sample Id: 643425-003

Matrix: Soil
Date Collected: 11.15.2019 09:15

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108158

Date Prep: 11.20.2019 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5020	25.0	mg/kg	11.20.2019 19:12		5

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108108

Date Prep: 11.19.2019 16:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	144	49.8	mg/kg	11.19.2019 19:24		1
Diesel Range Organics (DRO)	C10C28DRO	5820	49.8	mg/kg	11.19.2019 19:24		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	814	49.8	mg/kg	11.19.2019 19:24		1
Total GRO-DRO	PHC628	5960	49.8	mg/kg	11.19.2019 19:24		1
Total TPH	PHC635	6780	49.8	mg/kg	11.19.2019 19:24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	11.19.2019 19:24	
o-Terphenyl	84-15-1	111	%	70-135	11.19.2019 19:24	



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: **SS03**
Lab Sample Id: 643425-003

Matrix: Soil
Date Collected: 11.15.2019 09:15

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3108042

Prep Method: SW5030B

% Moisture:

Date Prep: 11.19.2019 14:30

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0366	0.00199	mg/kg	11.20.2019 02:52		1
Toluene	108-88-3	0.228	0.00199	mg/kg	11.20.2019 02:52		1
Ethylbenzene	100-41-4	0.0776	0.00199	mg/kg	11.20.2019 02:52		1
m,p-Xylenes	179601-23-1	0.258	0.00398	mg/kg	11.20.2019 02:52		1
o-Xylene	95-47-6	0.0963	0.00199	mg/kg	11.20.2019 02:52		1
Total Xylenes	1330-20-7	0.354	0.00199	mg/kg	11.20.2019 02:52		1
Total BTEX		0.697	0.00199	mg/kg	11.20.2019 02:52		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	129	%	70-130	11.20.2019 02:52		
4-Bromofluorobenzene	460-00-4	139	%	70-130	11.20.2019 02:52	**	



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: **SS04**
Lab Sample Id: 643425-004

Matrix: Soil
Date Collected: 11.15.2019 09:20

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108158

Date Prep: 11.20.2019 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5190	25.3	mg/kg	11.20.2019 19:19		5

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108108

Date Prep: 11.19.2019 16:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	1650	250	mg/kg	11.20.2019 07:46		5
Diesel Range Organics (DRO)	C10C28DRO	10800	250	mg/kg	11.20.2019 07:46		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1240	250	mg/kg	11.20.2019 07:46		5
Total GRO-DRO	PHC628	12500	250	mg/kg	11.20.2019 07:46		5
Total TPH	PHC635	13700	250	mg/kg	11.20.2019 07:46		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	11.20.2019 07:46	
o-Terphenyl	84-15-1	113	%	70-135	11.20.2019 07:46	



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: **SS04**
Lab Sample Id: 643425-004

Matrix: Soil
Date Collected: 11.15.2019 09:20

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3108042

Prep Method: SW5030B

% Moisture:

Date Prep: 11.19.2019 14:30

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0782	0.00199	mg/kg	11.20.2019 03:12		1
Toluene	108-88-3	1.47	0.0398	mg/kg	11.20.2019 12:57	D	20
Ethylbenzene	100-41-4	2.61	0.0398	mg/kg	11.20.2019 12:57	D	20
m,p-Xylenes	179601-23-1	11.1	0.0797	mg/kg	11.20.2019 12:57	D	20
o-Xylene	95-47-6	4.58	0.0398	mg/kg	11.20.2019 12:57	D	20
Total Xylenes	1330-20-7	15.7	0.0398	mg/kg	11.20.2019 12:57		20
Total BTEX		19.8	0.00199	mg/kg	11.20.2019 12:57		20
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	146	%	70-130	11.20.2019 03:12	**	
4-Bromofluorobenzene	460-00-4	390	%	70-130	11.20.2019 03:12	**	



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: SS05
Lab Sample Id: 643425-005

Matrix: Soil
Date Collected: 11.15.2019 10:00

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108158

Date Prep: 11.20.2019 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7870	49.7	mg/kg	11.20.2019 19:25		10

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108108

Date Prep: 11.19.2019 16:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	4350	250	mg/kg	11.20.2019 08:07		5
Diesel Range Organics (DRO)	C10C28DRO	12900	250	mg/kg	11.20.2019 08:07		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1280	250	mg/kg	11.20.2019 08:07		5
Total GRO-DRO	PHC628	17300	250	mg/kg	11.20.2019 08:07		5
Total TPH	PHC635	18500	250	mg/kg	11.20.2019 08:07		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	11.20.2019 08:07	
o-Terphenyl	84-15-1	118	%	70-135	11.20.2019 08:07	



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: **SS05**
Lab Sample Id: 643425-005

Matrix: **Soil**
Date Collected: 11.15.2019 10:00

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: **KTL**

Analyst: **KTL**

Seq Number: 3108042

Prep Method: SW5030B

% Moisture:

Date Prep: 11.19.2019 14:30

Basis: **Wet Weight**

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	4.41	1.99	mg/kg	11.20.2019 13:17	D	1000
Toluene	108-88-3	41.0	1.99	mg/kg	11.20.2019 13:17	D	1000
Ethylbenzene	100-41-4	16.3	1.99	mg/kg	11.20.2019 13:17	D	1000
m,p-Xylenes	179601-23-1	65.7	3.98	mg/kg	11.20.2019 13:17	D	1000
o-Xylene	95-47-6	24.3	1.99	mg/kg	11.20.2019 13:17	D	1000
Total Xylenes	1330-20-7	90.0	1.99	mg/kg	11.20.2019 13:17		1000
Total BTEX		152	1.99	mg/kg	11.20.2019 13:17		1000

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	2417	%	70-130	11.20.2019 03:32	**
1,4-Difluorobenzene	540-36-3	129	%	70-130	11.20.2019 03:32	



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: **SS06**
Lab Sample Id: 643425-006

Matrix: Soil
Date Collected: 11.15.2019 10:05

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108158

Date Prep: 11.20.2019 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9090	50.3	mg/kg	11.20.2019 19:32		10

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108108

Date Prep: 11.19.2019 16:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	586	250	mg/kg	11.20.2019 08:28		5
Diesel Range Organics (DRO)	C10C28DRO	7490	250	mg/kg	11.20.2019 08:28		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	936	250	mg/kg	11.20.2019 08:28		5
Total GRO-DRO	PHC628	8080	250	mg/kg	11.20.2019 08:28		5
Total TPH	PHC635	9010	250	mg/kg	11.20.2019 08:28		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	11.20.2019 08:28	
o-Terphenyl	84-15-1	113	%	70-135	11.20.2019 08:28	



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: **SS06**
Lab Sample Id: 643425-006

Matrix: **Soil**
Date Collected: 11.15.2019 10:05

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: **KTL**

Analyst: **KTL**

Seq Number: 3108042

Prep Method: SW5030B

% Moisture:

Date Prep: 11.19.2019 14:30

Basis: **Wet Weight**

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0976	0.00198	mg/kg	11.20.2019 03:52		1
Toluene	108-88-3	1.16	0.0198	mg/kg	11.20.2019 13:37	D	10
Ethylbenzene	100-41-4	0.287	0.00198	mg/kg	11.20.2019 03:52		1
m,p-Xylenes	179601-23-1	4.28	0.0396	mg/kg	11.20.2019 13:37	D	10
o-Xylene	95-47-6	0.366	0.00198	mg/kg	11.20.2019 03:52		1
Total Xylenes	1330-20-7	4.65	0.00198	mg/kg	11.20.2019 13:37		10
Total BTEX		6.19	0.00198	mg/kg	11.20.2019 13:37		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	154	%	70-130	11.20.2019 03:52	**
4-Bromofluorobenzene	460-00-4	289	%	70-130	11.20.2019 03:52	**



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: SS07
Lab Sample Id: 643425-007

Matrix: Soil
Date Collected: 11.15.2019 10:10

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108158

Date Prep: 11.20.2019 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8400	50.3	mg/kg	11.20.2019 19:38		10

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108108

Date Prep: 11.19.2019 16:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	352	49.9	mg/kg	11.19.2019 20:49		1
Diesel Range Organics (DRO)	C10C28DRO	2190	49.9	mg/kg	11.19.2019 20:49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	300	49.9	mg/kg	11.19.2019 20:49		1
Total GRO-DRO	PHC628	2540	49.9	mg/kg	11.19.2019 20:49		1
Total TPH	PHC635	2840	49.9	mg/kg	11.19.2019 20:49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	11.19.2019 20:49	
o-Terphenyl	84-15-1	110	%	70-135	11.19.2019 20:49	



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: **SS07**
Lab Sample Id: 643425-007

Matrix: **Soil**
Date Collected: 11.15.2019 10:10

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: **KTL**

Analyst: **KTL**

Seq Number: 3108042

Prep Method: SW5030B

% Moisture:

Date Prep: 11.19.2019 14:30

Basis: **Wet Weight**

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0176	0.00201	mg/kg	11.20.2019 04:12		1
Toluene	108-88-3	0.826	0.0402	mg/kg	11.20.2019 13:57	D	20
Ethylbenzene	100-41-4	1.48	0.0402	mg/kg	11.20.2019 13:57	D	20
m,p-Xylenes	179601-23-1	6.12	0.0803	mg/kg	11.20.2019 13:57	D	20
o-Xylene	95-47-6	2.58	0.0402	mg/kg	11.20.2019 13:57	D	20
Total Xylenes	1330-20-7	8.70	0.0402	mg/kg	11.20.2019 13:57		20
Total BTEX		11.0	0.00201	mg/kg	11.20.2019 13:57		20
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	457	%	70-130	11.20.2019 04:12	**	
1,4-Difluorobenzene	540-36-3	131	%	70-130	11.20.2019 04:12	**	



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: **SS08**
Lab Sample Id: 643425-008

Matrix: Soil
Date Collected: 11.15.2019 10:15

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108158

Date Prep: 11.20.2019 12:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4210	25.2	mg/kg	11.20.2019 19:45		5

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108108

Date Prep: 11.19.2019 16:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.19.2019 21:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	224	49.8	mg/kg	11.19.2019 21:10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.19.2019 21:10	U	1
Total GRO-DRO	PHC628	224	49.8	mg/kg	11.19.2019 21:10		1
Total TPH	PHC635	224	49.8	mg/kg	11.19.2019 21:10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	11.19.2019 21:10	
o-Terphenyl	84-15-1	128	%	70-135	11.19.2019 21:10	



Certificate of Analytical Results 643425

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 10H

Sample Id: **SS08**
Lab Sample Id: 643425-008

Matrix: Soil
Date Collected: 11.15.2019 10:15

Date Received: 11.15.2019 14:36
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3108042

Prep Method: SW5030B

% Moisture:

Date Prep: 11.19.2019 14:30

Basis: Wet Weight

SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00662	0.00200	mg/kg	11.20.2019 04:32		1
Toluene	108-88-3	0.0209	0.00200	mg/kg	11.20.2019 04:32		1
Ethylbenzene	100-41-4	0.0107	0.00200	mg/kg	11.20.2019 04:32		1
m,p-Xylenes	179601-23-1	0.0435	0.00401	mg/kg	11.20.2019 04:32		1
o-Xylene	95-47-6	0.0197	0.00200	mg/kg	11.20.2019 04:32		1
Total Xylenes	1330-20-7	0.0632	0.00200	mg/kg	11.20.2019 04:32		1
Total BTEX		0.101	0.00200	mg/kg	11.20.2019 04:32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	123	%	70-130	11.20.2019 04:32	
1,4-Difluorobenzene	540-36-3	110	%	70-130	11.20.2019 04:32	



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.

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 CVX JV BS 10H

Analytical Method: Chloride by EPA 300

Seq Number: 3108158

MB Sample Id: 7690750-1-BLK

Matrix: Solid

LCS Sample Id: 7690750-1-BKS

Prep Method: E300P

Date Prep: 11.20.2019

LCSD Sample Id: 7690750-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	258	103	260	104	90-110	1	20	mg/kg	11.20.2019 16:32	

Analytical Method: Chloride by EPA 300

Seq Number: 3108158

Parent Sample Id: 643413-003

Matrix: Soil

MS Sample Id: 643413-003 S

Prep Method: E300P

Date Prep: 11.20.2019

MSD Sample Id: 643413-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1100	199	1280	90	1310	106	90-110	2	20	mg/kg	11.20.2019 16:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3108158

Parent Sample Id: 643413-013

Matrix: Soil

MS Sample Id: 643413-013 S

Prep Method: E300P

Date Prep: 11.20.2019

MSD Sample Id: 643413-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	24.2	249	298	110	299	110	90-110	0	20	mg/kg	11.20.2019 18:25	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108108

MB Sample Id: 7690625-1-BLK

Matrix: Solid

LCS Sample Id: 7690625-1-BKS

Prep Method: SW8015P

Date Prep: 11.19.2019

LCSD Sample Id: 7690625-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1010	101	1040	104	70-135	3	20	mg/kg	11.19.2019 12:46	
Diesel Range Organics (DRO)	<15.0	1000	1050	105	1060	106	70-135	1	20	mg/kg	11.19.2019 12:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		100		101		70-135	%	11.19.2019 12:46
o-Terphenyl	109		108		104		70-135	%	11.19.2019 12:46

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108108

Matrix: Solid

MB Sample Id: 7690625-1-BLK

Prep Method: SW8015P

Date Prep: 11.19.2019

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.19.2019 12:26	

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



LT Environmental, Inc.
PLU CVX JV BS 10H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108108

Parent Sample Id: 643583-001

Matrix: Soil

MS Sample Id: 643583-001 S

Prep Method: SW8015P

Date Prep: 11.19.2019

MSD Sample Id: 643583-001 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)	<15.0	999	1020	102	1010	101	70-135	1	20	mg/kg	11.19.2019 13:50	
Diesel Range Organics (DRO)	20.4	999	1060	104	1040	102	70-135	2	20	mg/kg	11.19.2019 13:50	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		104		70-135	%	11.19.2019 13:50
o-Terphenyl	108		110		70-135	%	11.19.2019 13:50

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108042

MB Sample Id: 7690655-1-BLK

Matrix: Solid

LCS Sample Id: 7690655-1-BKS

Prep Method: SW5030B

Date Prep: 11.19.2019

LCSD Sample Id: 7690655-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.104	104	0.103	103	70-130	1	35	mg/kg	11.19.2019 17:06	
Toluene	<0.00200	0.100	0.101	101	0.104	104	70-130	3	35	mg/kg	11.19.2019 17:06	
Ethylbenzene	<0.00200	0.100	0.106	106	0.112	112	70-130	6	35	mg/kg	11.19.2019 17:06	
m,p-Xylenes	<0.00400	0.200	0.218	109	0.231	116	70-130	6	35	mg/kg	11.19.2019 17:06	
o-Xylene	<0.00200	0.100	0.108	108	0.115	115	70-130	6	35	mg/kg	11.19.2019 17:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		111		109		70-130	%	11.19.2019 17:06
4-Bromofluorobenzene	101		108		109		70-130	%	11.19.2019 17:06

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108042

Parent Sample Id: 643425-001

Matrix: Soil

MS Sample Id: 643425-001 S

Prep Method: SW5030B

Date Prep: 11.19.2019

MSD Sample Id: 643425-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.0106	0.0998	0.116	106	0.104	94	70-130	11	35	mg/kg	11.19.2019 17:47	
Toluene	0.0273	0.0998	0.124	97	0.115	88	70-130	8	35	mg/kg	11.19.2019 17:47	
Ethylbenzene	0.00776	0.0998	0.106	98	0.0930	86	70-130	13	35	mg/kg	11.19.2019 17:47	
m,p-Xylenes	0.0298	0.200	0.241	106	0.208	90	70-130	15	35	mg/kg	11.19.2019 17:47	
o-Xylene	0.0121	0.0998	0.114	102	0.0994	88	70-130	14	35	mg/kg	11.19.2019 17:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	115		113		70-130	%	11.19.2019 17:47
4-Bromofluorobenzene	118		115		70-130	%	11.19.2019 17:47

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3333
Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 281-1111
Hobbs, NM (575-392-7550)

Chain of Custody

Work Order No:

643425

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

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

[illegible]

SAMPLE RECEIPT			
Temp Blank:	Yes ☒ No ☐	Wet Ice:	Yes ☒ No ☐
Temperature (°C):	Thermometer ID		
Received Intact:	Yes ☒ No ☐	T-N M-007	
Cooler Custody Seals:	Yes ☒ No ☐ N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes ☒ No ☐ N/A	Total Containers:	8

Number of Containers

(EPA 8015)

(EPA 0=8021)

de (EPA 300.0)

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (E)	BTEX	Chlori	Sample Comments
SS01	S	4/15/19	0905	0.5'	1	X	X	X	discrete
SS02			0910						
SS03			0915						
SS04			0920						
SS05			1000						
SS06			1005						↓
SS07			1010						
SS08			1015						
fsw									

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.

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

[illegible]

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	11/15/19 14:36	2		
3			4		
5			6		

Revised Date 05/14/18 Rev. 2018



Inter-Office Shipment

Page 1 of 2

IOS Number **52430**

Date/Time: 11/18/19 12:03

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 777015368177

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
643425-001	S	SS01	11/15/19 09:05	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/29/19	JKR	GRO-DRO PHCC10C28 PF	
643425-001	S	SS01	11/15/19 09:05	E300_CL	Chloride by EPA 300	11/21/19	05/13/20	JKR	CL	
643425-001	S	SS01	11/15/19 09:05	SW8021B	BTEX by EPA 8021B	11/21/19	11/29/19	JKR	BZ BZME EBZ XYLENES	
643425-002	S	SS02	11/15/19 09:10	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/29/19	JKR	GRO-DRO PHCC10C28 PF	
643425-002	S	SS02	11/15/19 09:10	SW8021B	BTEX by EPA 8021B	11/21/19	11/29/19	JKR	BZ BZME EBZ XYLENES	
643425-002	S	SS02	11/15/19 09:10	E300_CL	Chloride by EPA 300	11/21/19	05/13/20	JKR	CL	
643425-003	S	SS03	11/15/19 09:15	SW8021B	BTEX by EPA 8021B	11/21/19	11/29/19	JKR	BZ BZME EBZ XYLENES	
643425-003	S	SS03	11/15/19 09:15	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/29/19	JKR	GRO-DRO PHCC10C28 PF	
643425-003	S	SS03	11/15/19 09:15	E300_CL	Chloride by EPA 300	11/21/19	05/13/20	JKR	CL	
643425-004	S	SS04	11/15/19 09:20	SW8021B	BTEX by EPA 8021B	11/21/19	11/29/19	JKR	BZ BZME EBZ XYLENES	
643425-004	S	SS04	11/15/19 09:20	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/29/19	JKR	GRO-DRO PHCC10C28 PF	
643425-004	S	SS04	11/15/19 09:20	E300_CL	Chloride by EPA 300	11/21/19	05/13/20	JKR	CL	
643425-005	S	SS05	11/15/19 10:00	SW8021B	BTEX by EPA 8021B	11/21/19	11/29/19	JKR	BZ BZME EBZ XYLENES	
643425-005	S	SS05	11/15/19 10:00	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/29/19	JKR	GRO-DRO PHCC10C28 PF	
643425-005	S	SS05	11/15/19 10:00	E300_CL	Chloride by EPA 300	11/21/19	05/13/20	JKR	CL	
643425-006	S	SS06	11/15/19 10:05	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/29/19	JKR	GRO-DRO PHCC10C28 PF	
643425-006	S	SS06	11/15/19 10:05	SW8021B	BTEX by EPA 8021B	11/21/19	11/29/19	JKR	BZ BZME EBZ XYLENES	
643425-006	S	SS06	11/15/19 10:05	E300_CL	Chloride by EPA 300	11/21/19	05/13/20	JKR	CL	
643425-007	S	SS07	11/15/19 10:10	E300_CL	Chloride by EPA 300	11/21/19	05/13/20	JKR	CL	
643425-007	S	SS07	11/15/19 10:10	SW8021B	BTEX by EPA 8021B	11/21/19	11/29/19	JKR	BZ BZME EBZ XYLENES	
643425-007	S	SS07	11/15/19 10:10	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/29/19	JKR	GRO-DRO PHCC10C28 PF	
643425-008	S	SS08	11/15/19 10:15	SW8021B	BTEX by EPA 8021B	11/21/19	11/29/19	JKR	BZ BZME EBZ XYLENES	
643425-008	S	SS08	11/15/19 10:15	E300_CL	Chloride by EPA 300	11/21/19	05/13/20	JKR	CL	
643425-008	S	SS08	11/15/19 10:15	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/29/19	JKR	GRO-DRO PHCC10C28 PF	



Inter-Office Shipment

Page 2 of 2

IOS Number 52430

Date/Time: 11/18/19 12:03

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 777015368177

E-Mail: jessica.kramer@xenco.com

Inter Office Shipment or Sample Comments:

Relinquished By:

A handwritten signature in black ink, appearing to read 'Elizabeth McClellan', written over a light gray rectangular background.

Elizabeth McClellan

Received By:

A handwritten signature in black ink, appearing to read 'Brianna Teel', written over a light gray rectangular background.

Brianna Teel

Date Relinquished: 11/18/2019

Date Received: 11/19/2019 12:31

Cooler Temperature: 0.3



XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 52430

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sent By: Elizabeth McClellan

Date Sent: 11/18/2019 12:03 PM

Received By: Brianna Teel

Date Received: 11/19/2019 12:31 PM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Brianna Teel

Date: 11/19/2019



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/15/2019 02:36:00 PM

Work Order #: 643425

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)?	1.5
#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

Subbed to Midland

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 11/15/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/20/2019

Analytical Report 651010

for
LT Environmental, Inc.

Project Manager: Dan Moir

PLU CVX JV BS 0104

012919271

03-FEB-20

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



03-FEB-20

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **651010**

PLU CVX JV BS 0104

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 XENCO Report Number(s) 651010. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 651010 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

**Sample Cross Reference 651010****LT Environmental, Inc., Arvada, CO**

PLU CVX JV BS 0104

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS 01	S	01-30-20 10:10	2 - 4 ft	651010-001
FS 2	S	01-30-20 12:55	4 ft	651010-002
SW01	S	01-30-20 12:35	0 - 4 ft	651010-003



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV BS 0104

Project ID: 012919271
Work Order Number(s): 651010

Report Date: 03-FEB-20
Date Received: 01/31/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3115243 BTEX by EPA 8021B

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

Batch: LBA-3115277 TPH by SW8015 Mod

Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 651010-003.



Certificate of Analysis Summary 651010

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV BS 0104

Project Id: 012919271

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Jan-31-20 12:41 pm

Report Date: 03-FEB-20

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	651010-001	651010-002	651010-003			
	<i>Field Id:</i>	FS 01	FS 2	SW01			
	<i>Depth:</i>	2-4 ft	4- ft	0-4 ft			
	<i>Matrix:</i>	SOIL	SOIL	SOIL			
	<i>Sampled:</i>	Jan-30-20 10:10	Jan-30-20 12:55	Jan-30-20 12:35			
BTEX by EPA 8021B	<i>Extracted:</i>	Jan-31-20 17:00	Jan-31-20 17:00	Jan-31-20 17:00			
	<i>Analyzed:</i>	Feb-01-20 01:59	Feb-01-20 02:19	Feb-01-20 02:40			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200			
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200			
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200			
m,p-Xylenes		<0.00399 0.00399	<0.00399 0.00399	<0.00400 0.00400			
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200			
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200			
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200			
Chloride by EPA 300	<i>Extracted:</i>	Jan-31-20 14:30	Jan-31-20 14:30	Jan-31-20 14:30			
	<i>Analyzed:</i>	Jan-31-20 16:18	Jan-31-20 16:36	Jan-31-20 16:42			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		357 9.96	6050 49.6	72.8 9.98			
TPH by SW8015 Mod	<i>Extracted:</i>	Jan-31-20 13:00	Jan-31-20 13:00	Jan-31-20 13:00			
	<i>Analyzed:</i>	Jan-31-20 16:28	Jan-31-20 16:48	Jan-31-20 16:48			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.0 50.0	<49.8 49.8			
Diesel Range Organics (DRO)		<49.8 49.8	<50.0 50.0	<49.8 49.8			
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.0 50.0	<49.8 49.8			
Total GRO-DRO		<49.8 49.8	<50.0 50.0	<49.8 49.8			
Total TPH		<49.8 49.8	<50.0 50.0	<49.8 49.8			

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

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 651010

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 0104

Sample Id: FS 01
Lab Sample Id: 651010-001

Matrix: Soil
Date Collected: 01.30.20 10.10

Date Received: 01.31.20 12.41
Sample Depth: 2 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115258

Date Prep: 01.31.20 14.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	357	9.96	mg/kg	01.31.20 16.18		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115277

Date Prep: 01.31.20 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.31.20 16.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.31.20 16.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.31.20 16.28	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	01.31.20 16.28	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.31.20 16.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	129	%	70-135	01.31.20 16.28	
o-Terphenyl	84-15-1	119	%	70-135	01.31.20 16.28	



Certificate of Analytical Results 651010

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 0104

Sample Id: **FS 01**
Lab Sample Id: 651010-001

Matrix: Soil
Date Collected: 01.30.20 10.10

Date Received: 01.31.20 12.41
Sample Depth: 2 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.31.20 17.00

Basis: Wet Weight

Seq Number: 3115243

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.01.20 01.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.01.20 01.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.01.20 01.59	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.01.20 01.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.01.20 01.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.01.20 01.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.01.20 01.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	02.01.20 01.59		
4-Bromofluorobenzene	460-00-4	96	%	70-130	02.01.20 01.59		



Certificate of Analytical Results 651010

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 0104

Sample Id: FS 2
Lab Sample Id: 651010-002

Matrix: Soil
Date Collected: 01.30.20 12.55

Date Received: 01.31.20 12.41
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115258

Date Prep: 01.31.20 14.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6050	49.6	mg/kg	01.31.20 16.36		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115277

Date Prep: 01.31.20 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.31.20 16.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.31.20 16.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.31.20 16.48	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	01.31.20 16.48	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.31.20 16.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	01.31.20 16.48	
o-Terphenyl	84-15-1	104	%	70-135	01.31.20 16.48	



Certificate of Analytical Results 651010

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 0104

Sample Id: FS 2
Lab Sample Id: 651010-002

Matrix: Soil
Date Collected: 01.30.20 12.55

Date Received: 01.31.20 12.41
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.31.20 17.00

Basis: Wet Weight

Seq Number: 3115243

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.01.20 02.19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.01.20 02.19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.01.20 02.19	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.01.20 02.19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.01.20 02.19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.01.20 02.19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.01.20 02.19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	02.01.20 02.19		
1,4-Difluorobenzene	540-36-3	109	%	70-130	02.01.20 02.19		



Certificate of Analytical Results 651010

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 0104

Sample Id: **SW01**
Lab Sample Id: 651010-003

Matrix: Soil
Date Collected: 01.30.20 12.35

Date Received: 01.31.20 12.41
Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115258

Date Prep: 01.31.20 14.30

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	72.8	9.98	mg/kg	01.31.20 16.42		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115277

Date Prep: 01.31.20 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.31.20 16.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.31.20 16.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.31.20 16.48	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	01.31.20 16.48	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.31.20 16.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	143	%	70-135	01.31.20 16.48	**
o-Terphenyl	84-15-1	131	%	70-135	01.31.20 16.48	



Certificate of Analytical Results 651010

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 0104

Sample Id: **SW01**
Lab Sample Id: 651010-003

Matrix: Soil
Date Collected: 01.30.20 12.35

Date Received: 01.31.20 12.41
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.31.20 17.00

Basis: Wet Weight

Seq Number: 3115243

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.01.20 02.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.01.20 02.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.01.20 02.40	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.01.20 02.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.01.20 02.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.01.20 02.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.01.20 02.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	87	%	70-130	02.01.20 02.40		
4-Bromofluorobenzene	460-00-4	85	%	70-130	02.01.20 02.40		



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.

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 CVX JV BS 0104

Analytical Method: Chloride by EPA 300

Seq Number: 3115258

MB Sample Id: 7695744-1-BLK

Matrix: Solid

LCS Sample Id: 7695744-1-BKS

Prep Method: E300P

Date Prep: 01.31.20

LCSD Sample Id: 7695744-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	256	102	90-110	0	20	mg/kg	01.31.20 14:41	

Analytical Method: Chloride by EPA 300

Seq Number: 3115258

Parent Sample Id: 651004-001

Matrix: Soil

MS Sample Id: 651004-001 S

Prep Method: E300P

Date Prep: 01.31.20

MSD Sample Id: 651004-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8630	201	8840	104	8830	100	90-110	0	20	mg/kg	01.31.20 14:59	

Analytical Method: Chloride by EPA 300

Seq Number: 3115258

Parent Sample Id: 651010-001

Matrix: Soil

MS Sample Id: 651010-001 S

Prep Method: E300P

Date Prep: 01.31.20

MSD Sample Id: 651010-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	357	199	560	102	561	102	90-110	0	20	mg/kg	01.31.20 16:24	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115277

MB Sample Id: 7695696-1-BLK

Matrix: Solid

LCS Sample Id: 7695696-1-BKS

Prep Method: SW8015P

Date Prep: 01.31.20

LCSD Sample Id: 7695696-1-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	929	93	1050	105	70-135	12	35	mg/kg	01.31.20 13:12	
Diesel Range Organics (DRO)	<50.0	1000	760	76	848	85	70-135	11	35	mg/kg	01.31.20 13:12	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		112		124		70-135	%	01.31.20 13:12
o-Terphenyl	111		104		106		70-135	%	01.31.20 13:12

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115277

Matrix: Solid

MB Sample Id: 7695696-1-BLK

Prep Method: SW8015P

Date Prep: 01.31.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.31.20 12:52	

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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 CVX JV BS 0104

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115277

Parent Sample Id: 651004-001

Matrix: Soil

MS Sample Id: 651004-001 S

Prep Method: SW8015P

Date Prep: 01.31.20

MSD Sample Id: 651004-001 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	1170	118	980	98	70-135	18	35	mg/kg	02.03.20 11:01	
Diesel Range Organics (DRO)	<49.8	995	1100	111	796	80	70-135	32	35	mg/kg	02.03.20 11:01	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		125		70-135	%	02.03.20 11:01
o-Terphenyl	107		117		70-135	%	02.03.20 11:01

Analytical Method: BTEX by EPA 8021B

Seq Number: 3115243

MB Sample Id: 7695741-1-BLK

Matrix: Solid

LCS Sample Id: 7695741-1-BKS

Prep Method: SW5030B

Date Prep: 01.31.20

LCSD Sample Id: 7695741-1-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	0.123	123	0.110	110	70-130	11	35	mg/kg	01.31.20 23:53	
Toluene	<0.00200	0.100	0.113	113	0.0988	99	70-130	13	35	mg/kg	01.31.20 23:53	
Ethylbenzene	<0.00200	0.100	0.110	110	0.0920	92	71-129	18	35	mg/kg	01.31.20 23:53	
m,p-Xylenes	<0.00400	0.200	0.216	108	0.178	89	70-135	19	35	mg/kg	01.31.20 23:53	
o-Xylene	<0.00200	0.100	0.108	108	0.0914	91	71-133	17	35	mg/kg	01.31.20 23:53	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		109		108		70-130	%	01.31.20 23:53
4-Bromofluorobenzene	95		92		89		70-130	%	01.31.20 23:53

Analytical Method: BTEX by EPA 8021B

Seq Number: 3115243

Parent Sample Id: 650797-087

Matrix: Soil

MS Sample Id: 650797-087 S

Prep Method: SW5030B

Date Prep: 01.31.20

MSD Sample Id: 650797-087 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.110	110	0.125	125	70-130	13	35	mg/kg	02.01.20 00:37	
Toluene	<0.00200	0.0998	0.102	102	0.115	115	70-130	12	35	mg/kg	02.01.20 00:37	
Ethylbenzene	<0.00200	0.0998	0.0990	99	0.111	111	71-129	11	35	mg/kg	02.01.20 00:37	
m,p-Xylenes	<0.00399	0.200	0.194	97	0.217	109	70-135	11	35	mg/kg	02.01.20 00:37	
o-Xylene	<0.00200	0.0998	0.0985	99	0.109	109	71-133	10	35	mg/kg	02.01.20 00:37	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		110		70-130	%	02.01.20 00:37
4-Bromofluorobenzene	96		95		70-130	%	02.01.20 00:37

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: 657010

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

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

Project Name:	PLU CVX JV BS 0104	Turn Around	
Project Number:	012919271	Routine	☐
P.O. Number:	Eddy County	Rush: 48 hours	
Sampler's Name:	Elizabeth Naka	Due Date:	

SAMPLE RECEIPT		Temp Blank:	Yes ☒ No ☐	Wet Ice:	Yes ☒ No ☐
Temperature (°C):	3.0	Thermometer ID: TMM007			
Received Intact:	Yes ☒ No ☐	Correction Factor: -0.2			
Cooler Custody Seals:	Yes ☒ No ☐	Total Containers: 3			
Sample Custody Seals:	Yes ☒ No ☐				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)
ES01	S	11/30/20	1010	2'-4'	1	X	X	X
ES02	↓	↓	1255	4'	↓	↓	↓	↓
SW01	↓	↓	1235	0'-4'	↓	↓	↓	↓
<i>Elizabeth Naka</i>								

ANALYSIS REQUEST									
Work Order Notes									
TAT starts the day received by the lab, if received by 4:30pm									
Sample Comments									
Composite									

Total 200.7 / 6010		200.8 / 6020:		8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010:		8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	
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
		11/30/20 1241			12/31/20 12:50

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 01.31.2020 12.41.00 PM

Work Order #: 651010

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T NM 007

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	No
#5 Custody Seals intact on sample bottles?	No
#6 *Custody Seals Signed and dated?	No
#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

* 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: 01.31.2020

Checklist reviewed by:



Jessica Kramer

Date: 02.03.2020

Analytical Report 651049

for
LT Environmental, Inc.

Project Manager: Dan Moir

PLU CVX JV BS 010H

012919271

03-FEB-20

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



03-FEB-20

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **651049**

PLU CVX JV BS 010H

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 XENCO Report Number(s) 651049. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 651049 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

**Sample Cross Reference 651049****LT Environmental, Inc., Arvada, CO**

PLU CVX JV BS 010H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW02	S	01-31-20 12:00	0 - 4 ft	651049-001
FS03	S	01-31-20 12:05	4 ft	651049-002
FS04	S	01-31-20 13:05	4 ft	651049-003
SW03	S	01-31-20 13:35	0 - 4 ft	651049-004
FS05	S	01-31-20 14:30	4 ft	651049-005



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV BS 010H

Project ID: 012919271
Work Order Number(s): 651049

Report Date: 03-FEB-20
Date Received: 01/31/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3115251 BTEX by EPA 8021B

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

Certificate of Analysis Summary 651049



LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV BS 010H

Project Id: 012919271

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Fri Jan-31-20 04:06 pm

Report Date: 03-FEB-20

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	651049-001	651049-002	651049-003	651049-004	651049-005	
	<i>Field Id:</i>	SW02	FS03	FS04	SW03	FS05	
	<i>Depth:</i>	0-4 ft	4- ft	4- ft	0-4 ft	4- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Jan-31-20 12:00	Jan-31-20 12:05	Jan-31-20 13:05	Jan-31-20 13:35	Jan-31-20 14:30	
BTEX by EPA 8021B	<i>Extracted:</i>	Jan-31-20 20:00	Jan-31-20 20:00	Jan-31-20 20:00	Jan-31-20 20:00	Jan-31-20 20:00	
	<i>Analyzed:</i>	Feb-01-20 04:54	Feb-01-20 05:15	Feb-01-20 05:35	Feb-01-20 05:55	Feb-01-20 06:57	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	
m,p-Xylenes		<0.00402 0.00402	<0.00400 0.00400	<0.00405 0.00405	<0.00402 0.00402	<0.00404 0.00404	
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	
Select Anions By EPA 300	<i>Extracted:</i>	Jan-31-20 18:00	Jan-31-20 18:00	Jan-31-20 18:00	Jan-31-20 18:00	Jan-31-20 18:00	
	<i>Analyzed:</i>	Jan-31-20 23:27	Jan-31-20 23:33	Jan-31-20 23:39	Jan-31-20 23:57	Feb-01-20 00:03	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		747 9.94	2310 49.7	3210 49.8	117 9.96	5140 49.2	
TPH by SW8015 Mod	<i>Extracted:</i>	Jan-31-20 17:00	Jan-31-20 17:00	Jan-31-20 17:30	Jan-31-20 17:30	Jan-31-20 17:30	
	<i>Analyzed:</i>	Feb-03-20 12:42	Feb-03-20 12:42	Feb-01-20 02:21	Feb-01-20 02:41	Feb-01-20 02:01	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.3 50.3	
Diesel Range Organics (DRO)		<50.1 50.1	<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.3 50.3	
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.3 50.3	
Total GRO-DRO		<50.1 50.1	<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.3 50.3	
Total TPH		<50.1 50.1	<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.3 50.3	

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

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 651049

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW02**
Lab Sample Id: 651049-001

Matrix: Soil
Date Collected: 01.31.20 12.00

Date Received: 01.31.20 16.06
Sample Depth: 0 - 4 ft

Analytical Method: Select Anions By EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115294

Date Prep: 01.31.20 18.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	747	9.94	mg/kg	01.31.20 23.27		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115292

Date Prep: 01.31.20 17.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.03.20 12.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.03.20 12.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.03.20 12.42	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.03.20 12.42	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.03.20 12.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	02.03.20 12.42	
o-Terphenyl	84-15-1	99	%	70-135	02.03.20 12.42	



Certificate of Analytical Results 651049

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW02**
Lab Sample Id: 651049-001

Matrix: Soil
Date Collected: 01.31.20 12.00

Date Received: 01.31.20 16.06
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.31.20 20.00

Basis: Wet Weight

Seq Number: 3115251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.01.20 04.54	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.01.20 04.54	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.01.20 04.54	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.01.20 04.54	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.01.20 04.54	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.01.20 04.54	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.01.20 04.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	02.01.20 04.54		
4-Bromofluorobenzene	460-00-4	100	%	70-130	02.01.20 04.54		



Certificate of Analytical Results 651049

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS03**
Lab Sample Id: 651049-002

Matrix: Soil
Date Collected: 01.31.20 12.05

Date Received: 01.31.20 16.06
Sample Depth: 4 ft

Analytical Method: Select Anions By EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115294

Date Prep: 01.31.20 18.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2310	49.7	mg/kg	01.31.20 23.33		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115292

Date Prep: 01.31.20 17.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	02.03.20 12.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	02.03.20 12.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	02.03.20 12.42	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	02.03.20 12.42	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	02.03.20 12.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	02.03.20 12.42	
o-Terphenyl	84-15-1	89	%	70-135	02.03.20 12.42	



Certificate of Analytical Results 651049

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS03**
Lab Sample Id: 651049-002

Matrix: Soil
Date Collected: 01.31.20 12.05

Date Received: 01.31.20 16.06
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.31.20 20.00

Basis: Wet Weight

Seq Number: 3115251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.01.20 05.15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.01.20 05.15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.01.20 05.15	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.01.20 05.15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.01.20 05.15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.01.20 05.15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.01.20 05.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	02.01.20 05.15		
1,4-Difluorobenzene	540-36-3	103	%	70-130	02.01.20 05.15		



Certificate of Analytical Results 651049

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS04**
Lab Sample Id: 651049-003

Matrix: Soil
Date Collected: 01.31.20 13.05

Date Received: 01.31.20 16.06
Sample Depth: 4 ft

Analytical Method: Select Anions By EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115294

Date Prep: 01.31.20 18.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3210	49.8	mg/kg	01.31.20 23.39		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115328

Date Prep: 01.31.20 17.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.01.20 02.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.01.20 02.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.01.20 02.21	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.01.20 02.21	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.01.20 02.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	02.01.20 02.21	
o-Terphenyl	84-15-1	91	%	70-135	02.01.20 02.21	



Certificate of Analytical Results 651049

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS04**
Lab Sample Id: 651049-003

Matrix: Soil
Date Collected: 01.31.20 13.05

Date Received: 01.31.20 16.06
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.31.20 20.00

Basis: Wet Weight

Seq Number: 3115251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.01.20 05.35	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.01.20 05.35	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.01.20 05.35	U	1
m,p-Xylenes	179601-23-1	<0.00405	0.00405	mg/kg	02.01.20 05.35	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.01.20 05.35	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.01.20 05.35	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.01.20 05.35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	02.01.20 05.35		
1,4-Difluorobenzene	540-36-3	102	%	70-130	02.01.20 05.35		



Certificate of Analytical Results 651049

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW03**
Lab Sample Id: 651049-004

Matrix: Soil
Date Collected: 01.31.20 13.35

Date Received: 01.31.20 16.06
Sample Depth: 0 - 4 ft

Analytical Method: Select Anions By EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115294

Date Prep: 01.31.20 18.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	117	9.96	mg/kg	01.31.20 23.57		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115328

Date Prep: 01.31.20 17.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	02.01.20 02.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	02.01.20 02.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	02.01.20 02.41	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	02.01.20 02.41	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	02.01.20 02.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.01.20 02.41	
o-Terphenyl	84-15-1	110	%	70-135	02.01.20 02.41	



Certificate of Analytical Results 651049

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW03**
Lab Sample Id: 651049-004

Matrix: Soil
Date Collected: 01.31.20 13.35

Date Received: 01.31.20 16.06
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.31.20 20.00

Basis: Wet Weight

Seq Number: 3115251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.01.20 05.55	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.01.20 05.55	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.01.20 05.55	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.01.20 05.55	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.01.20 05.55	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.01.20 05.55	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.01.20 05.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	02.01.20 05.55		
4-Bromofluorobenzene	460-00-4	103	%	70-130	02.01.20 05.55		



Certificate of Analytical Results 651049

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: FS05
Lab Sample Id: 651049-005

Matrix: Soil
Date Collected: 01.31.20 14.30

Date Received: 01.31.20 16.06
Sample Depth: 4 ft

Analytical Method: Select Anions By EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115294

Date Prep: 01.31.20 18.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5140	49.2	mg/kg	02.01.20 00.03		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115328

Date Prep: 01.31.20 17.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	02.01.20 02.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	02.01.20 02.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	02.01.20 02.01	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	02.01.20 02.01	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	02.01.20 02.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.01.20 02.01	
o-Terphenyl	84-15-1	102	%	70-135	02.01.20 02.01	



Certificate of Analytical Results 651049

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS05**
Lab Sample Id: 651049-005

Matrix: Soil
Date Collected: 01.31.20 14.30

Date Received: 01.31.20 16.06
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.31.20 20.00

Basis: Wet Weight

Seq Number: 3115251

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	02.01.20 06.57	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	02.01.20 06.57	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	02.01.20 06.57	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	02.01.20 06.57	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	02.01.20 06.57	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	02.01.20 06.57	U	1
Total BTEX		<0.00202	0.00202	mg/kg	02.01.20 06.57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	02.01.20 06.57		
4-Bromofluorobenzene	460-00-4	103	%	70-130	02.01.20 06.57		



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.

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 CVX JV BS 010H

Analytical Method: Select Anions By EPA 300

Seq Number: 3115294

MB Sample Id: 7695746-1-BLK

Matrix: Solid

LCS Sample Id: 7695746-1-BKS

Prep Method: E300P

Date Prep: 01.31.20

LCSD Sample Id: 7695746-1-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	254	102	255	102	90-110	0	20	mg/kg	01.31.20 21:21	

Analytical Method: Select Anions By EPA 300

Seq Number: 3115294

Parent Sample Id: 651013-028

Matrix: Soil

MS Sample Id: 651013-028 S

Prep Method: E300P

Date Prep: 01.31.20

MSD Sample Id: 651013-028 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	42.4	201	251	104	253	105	90-110	1	20	mg/kg	02.03.20 11:49	

Analytical Method: Select Anions By EPA 300

Seq Number: 3115294

Parent Sample Id: 651046-003

Matrix: Soil

MS Sample Id: 651046-003 S

Prep Method: E300P

Date Prep: 01.31.20

MSD Sample Id: 651046-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.8	199	236	105	236	104	90-110	0	20	mg/kg	01.31.20 23:02	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115292

MB Sample Id: 7695777-1-BLK

Matrix: Solid

LCS Sample Id: 7695777-1-BKS

Prep Method: SW8015P

Date Prep: 01.31.20

LCSD Sample Id: 7695777-1-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	950	95	883	88	70-135	7	35	mg/kg	01.31.20 20:26	
Diesel Range Organics (DRO)	<50.0	1000	781	78	747	75	70-135	4	35	mg/kg	01.31.20 20:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		113		105		70-135	%	01.31.20 20:26
o-Terphenyl	112		105		99		70-135	%	01.31.20 20:26

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



LT Environmental, Inc.

PLU CVX JV BS 010H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115328

MB Sample Id: 7695780-1-BLK

Matrix: Solid

LCS Sample Id: 7695780-1-BKS

Prep Method: SW8015P

Date Prep: 01.31.20

LCSD Sample Id: 7695780-1-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	1080	108	1010	101	70-135	7	35	mg/kg	02.01.20 01:42	
Diesel Range Organics (DRO)	<50.0	1000	1100	110	1040	104	70-135	6	35	mg/kg	02.01.20 01:42	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		129		125		70-135	%	02.01.20 01:42
o-Terphenyl	99		130		119		70-135	%	02.01.20 01:42

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115292

Matrix: Solid

MB Sample Id: 7695777-1-BLK

Prep Method: SW8015P

Date Prep: 01.31.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.31.20 20:26	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115292

Matrix: Solid

MB Sample Id: 7695780-1-BLK

Prep Method: SW8015P

Date Prep: 01.31.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.01.20 01:22	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115292

Matrix: Soil

Parent Sample Id: 651025-018

MS Sample Id: 651025-018 S

Prep Method: SW8015P

Date Prep: 01.31.20

MSD Sample Id: 651025-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	1110	111	1100	109	70-135	1	35	mg/kg	01.31.20 21:06	
Diesel Range Organics (DRO)	<49.9	997	1140	114	1100	109	70-135	4	35	mg/kg	01.31.20 21:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		116		70-135	%	01.31.20 21:06
o-Terphenyl	111		102		70-135	%	01.31.20 21:06

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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 CVX JV BS 010H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115328

Parent Sample Id: 651049-005

Matrix: Soil

MS Sample Id: 651049-005 S

Prep Method: SW8015P

Date Prep: 01.31.20

MSD Sample Id: 651049-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	1110	111	1200	120	70-135	8	35	mg/kg	02.01.20 02:01	
Diesel Range Organics (DRO)	<50.0	999	1120	112	1110	111	70-135	1	35	mg/kg	02.01.20 02:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		128		70-135	%	02.01.20 02:01
o-Terphenyl	108		119		70-135	%	02.01.20 02:01

Analytical Method: BTEX by EPA 8021B

Seq Number: 3115251

MB Sample Id: 7695742-1-BLK

Matrix: Solid

LCS Sample Id: 7695742-1-BKS

Prep Method: SW5030B

Date Prep: 01.31.20

LCSD Sample Id: 7695742-1-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	0.0920	92	0.102	102	70-130	10	35	mg/kg	02.01.20 01:10	
Toluene	<0.00200	0.100	0.0892	89	0.0987	99	70-130	10	35	mg/kg	02.01.20 01:10	
Ethylbenzene	<0.00200	0.100	0.0859	86	0.0950	95	71-129	10	35	mg/kg	02.01.20 01:10	
m,p-Xylenes	<0.00400	0.200	0.176	88	0.195	98	70-135	10	35	mg/kg	02.01.20 01:10	
o-Xylene	<0.00200	0.100	0.0884	88	0.0978	98	71-133	10	35	mg/kg	02.01.20 01:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		102		104		70-130	%	02.01.20 01:10
4-Bromofluorobenzene	95		95		95		70-130	%	02.01.20 01:10

Analytical Method: BTEX by EPA 8021B

Seq Number: 3115251

Parent Sample Id: 651046-001

Matrix: Soil

MS Sample Id: 651046-001 S

Prep Method: SW5030B

Date Prep: 01.31.20

MSD Sample Id: 651046-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0755	76	0.0870	88	70-130	14	35	mg/kg	02.01.20 01:51	
Toluene	<0.00199	0.0994	0.0785	79	0.0754	76	70-130	4	35	mg/kg	02.01.20 01:51	
Ethylbenzene	0.00507	0.0994	0.0815	77	0.0804	76	71-129	1	35	mg/kg	02.01.20 01:51	
m,p-Xylenes	0.0134	0.199	0.190	89	0.187	88	70-135	2	35	mg/kg	02.01.20 01:51	
o-Xylene	0.0126	0.0994	0.0865	74	0.0903	78	71-133	4	35	mg/kg	02.01.20 01:51	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		102		70-130	%	02.01.20 01:51
4-Bromofluorobenzene	114		123		70-130	%	02.01.20 01:51

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 (81

Page ____ of ____
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Chain of Custody

Work Order No: 1051049

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

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

[illegible]

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 \$4 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Total 200.7 / 6010	200.8 / 6020:	
8RCRA	13PPM	Texas 11
		Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
TCLP / SPLP 6010:	8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
		1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>Elizabeth Nash</i>		1/21/20 14:00			
2					
3					
4					
5					
6					

Revised Date 05/14/18 Rev. 2018.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 01.31.2020 04.06.00 PM

Work Order #: 651049

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 01.31.2020

Checklist reviewed by:



Jessica Kramer

Date: 02.03.2020

Analytical Report 651334

for
LT Environmental, Inc.

Project Manager: Dan Moir

PLU CVX JV BS 010H

012919271

06-FEB-20

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



06-FEB-20

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **651334**

PLU CVX JV BS 010H

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 XENCO Report Number(s) 651334. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 651334 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 651334

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW04	S	02-03-20 11:50	0 - 4 ft	651334-001



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV BS 010H

Project ID: 012919271
Work Order Number(s): 651334

Report Date: 06-FEB-20
Date Received: 02/04/2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3115570 BTEX by EPA 8021B

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

Certificate of Analysis Summary 651334



LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV BS 010H

Project Id: 012919271

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Tue Feb-04-20 02:11 pm

Report Date: 06-FEB-20

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	651334-001					
	Field Id:	SW04					
	Depth:	0-4 ft					
	Matrix:	SOIL					
	Sampled:	Feb-03-20 11:50					
BTEX by EPA 8021B	Extracted:	Feb-04-20 16:00					
	Analyzed:	Feb-04-20 23:36					
	Units/RL:	mg/kg RL					
Benzene		<0.00200 0.00200					
Toluene		<0.00200 0.00200					
Ethylbenzene		<0.00200 0.00200					
m,p-Xylenes		<0.00399 0.00399					
o-Xylene		<0.00200 0.00200					
Total Xylenes		<0.00200 0.00200					
Total BTEX		<0.00200 0.00200					
Chloride by EPA 300	Extracted:	Feb-04-20 18:12					
	Analyzed:	Feb-04-20 22:47					
	Units/RL:	mg/kg RL					
Chloride		396 9.98					
TPH by SW8015 Mod	Extracted:	Feb-04-20 17:30					
	Analyzed:	Feb-05-20 00:54					
	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		<49.8 49.8					
Total TPH		<49.8 49.8					

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

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 651334

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW04**
Lab Sample Id: 651334-001

Matrix: Soil
Date Collected: 02.03.20 11.50

Date Received: 02.04.20 14.11
Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115630

Date Prep: 02.04.20 18.12

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	396	9.98	mg/kg	02.04.20 22.47		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115606

Date Prep: 02.04.20 17.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	02.05.20 00.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	02.05.20 00.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	02.05.20 00.54	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	02.05.20 00.54	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	02.05.20 00.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	02.05.20 00.54	
o-Terphenyl	84-15-1	97	%	70-135	02.05.20 00.54	



Certificate of Analytical Results 651334

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW04**
Lab Sample Id: 651334-001

Matrix: Soil
Date Collected: 02.03.20 11.50

Date Received: 02.04.20 14.11
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.04.20 16.00

Basis: Wet Weight

Seq Number: 3115570

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.04.20 23.36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.04.20 23.36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.04.20 23.36	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.04.20 23.36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.04.20 23.36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.04.20 23.36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.04.20 23.36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	02.04.20 23.36		
4-Bromofluorobenzene	460-00-4	96	%	70-130	02.04.20 23.36		



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.

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 CVX JV BS 010H

Analytical Method: Chloride by EPA 300

Seq Number: 3115630

MB Sample Id: 7695976-1-BLK

Matrix: Solid

LCS Sample Id: 7695976-1-BKS

Prep Method: E300P

Date Prep: 02.04.20

LCSD Sample Id: 7695976-1-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	258	103	258	103	90-110	0	20	mg/kg	02.04.20 20:11	

Analytical Method: Chloride by EPA 300

Seq Number: 3115630

Parent Sample Id: 651314-001

Matrix: Soil

MS Sample Id: 651314-001 S

Prep Method: E300P

Date Prep: 02.04.20

MSD Sample Id: 651314-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	284	201	498	106	494	104	90-110	1	20	mg/kg	02.04.20 20:28	

Analytical Method: Chloride by EPA 300

Seq Number: 3115630

Parent Sample Id: 651319-005

Matrix: Soil

MS Sample Id: 651319-005 S

Prep Method: E300P

Date Prep: 02.04.20

MSD Sample Id: 651319-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	267	200	477	105	480	107	90-110	1	20	mg/kg	02.04.20 21:43	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115606

MB Sample Id: 7696012-1-BLK

Matrix: Solid

LCS Sample Id: 7696012-1-BKS

Prep Method: SW8015P

Date Prep: 02.04.20

LCSD Sample Id: 7696012-1-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	1170	117	1030	103	70-135	13	35	mg/kg	02.04.20 21:58	
Diesel Range Organics (DRO)	<50.0	1000	1080	108	1040	104	70-135	4	35	mg/kg	02.04.20 21:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		131		112		70-135	%	02.04.20 21:58
o-Terphenyl	95		122		103		70-135	%	02.04.20 21:58

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115606

Matrix: Solid

MB Sample Id: 7696012-1-BLK

Prep Method: SW8015P

Date Prep: 02.04.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.04.20 21:39	

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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 CVX JV BS 010H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115606

Parent Sample Id: 651159-008

Matrix: Soil

MS Sample Id: 651159-008 S

Prep Method: SW8015P

Date Prep: 02.04.20

MSD Sample Id: 651159-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1180	118	1160	116	70-135	2	35	mg/kg	02.04.20 22:18	
Diesel Range Organics (DRO)	<50.2	1000	1180	118	1180	118	70-135	0	35	mg/kg	02.04.20 22:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		128		70-135	%	02.04.20 22:18
o-Terphenyl	115		113		70-135	%	02.04.20 22:18

Analytical Method: BTEX by EPA 8021B

Seq Number: 3115570

MB Sample Id: 7695936-1-BLK

Matrix: Solid

LCS Sample Id: 7695936-1-BKS

Prep Method: SW5030B

Date Prep: 02.04.20

LCSD Sample Id: 7695936-1-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	0.112	112	0.122	122	70-130	9	35	mg/kg	02.04.20 14:46	
Toluene	<0.00200	0.100	0.102	102	0.109	109	70-130	7	35	mg/kg	02.04.20 14:46	
Ethylbenzene	<0.00200	0.100	0.0986	99	0.104	104	71-129	5	35	mg/kg	02.04.20 14:46	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.202	101	70-135	5	35	mg/kg	02.04.20 14:46	
o-Xylene	<0.00200	0.100	0.0968	97	0.102	102	71-133	5	35	mg/kg	02.04.20 14:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		108		109		70-130	%	02.04.20 14:46
4-Bromofluorobenzene	92		92		93		70-130	%	02.04.20 14:46

Analytical Method: BTEX by EPA 8021B

Seq Number: 3115570

Parent Sample Id: 651256-013

Matrix: Soil

MS Sample Id: 651256-013 S

Prep Method: SW5030B

Date Prep: 02.04.20

MSD Sample Id: 651256-013 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	0.123	123	0.127	127	70-130	3	35	mg/kg	02.04.20 15:26	
Toluene	<0.00200	0.100	0.116	116	0.113	113	70-130	3	35	mg/kg	02.04.20 15:26	
Ethylbenzene	<0.00200	0.100	0.106	106	0.103	103	71-129	3	35	mg/kg	02.04.20 15:26	
m,p-Xylenes	<0.00400	0.200	0.209	105	0.203	102	70-135	3	35	mg/kg	02.04.20 15:26	
o-Xylene	<0.00200	0.100	0.106	106	0.103	103	71-133	3	35	mg/kg	02.04.20 15:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		109		70-130	%	02.04.20 15:26
4-Bromofluorobenzene	93		93		70-130	%	02.04.20 15:26

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



Chain of Custody

Work Order No:

651394

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)

Project Manager: Dan Moir
 Company Name: LT Environmental, Inc., Permian office
 Address: 3300 North A Street
 City, State ZIP: Midland, TX 79705
 Phone: (432) 236-3849
 Email: enaka@ltenv.com, dmoir@ltenv.com

Bill to: (if different) Kyle Littrell
 Company Name: XTO Energy
 Address:
 City, State ZIP:

Program: ☐ RP ☐ Brownfields ☐ RC ☐ Superfund
 State of Project:
 Reporting Level: ☐ Level I ☐ Level II ☐ Level III ☐ Level IV
 Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name: PLU CVK JV BS 0104
 Project Number: 012914271
 P.O. Number:
 Sampler's Name: Elizabeth Naka
 Turn Around: Routine ☐
 Rush: 48 hr
 Due Date:

ANALYSIS REQUEST

Work Order Notes

SAMPLE RECEIPT

Temperature (°C): 4.4
 Received Intact: Yes ☒ No ☐
 Cooler Custody Seals: Yes ☒ No ☐
 Sample Custody Seals: Yes ☒ No ☐
 Temp Blank: Yes ☒ No ☐
 Wet Ice: Yes ☒ No ☐
 Thermometer ID: T-MM-007
 Correction Factor: -0.2
 Total Containers: 1

Sample Identification

Sample ID: SMD4
 Matrix: S
 Date Sampled: 11/30/20
 Time Sampled: 11:50
 Depth: 0'-4'

Number of Containers

TPH (EPA 8015) ☒
 BTEX (EPA 0-8021) ☒
 Chloride (EPA 300.0) ☒

Sample Comments

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

Composite

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 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

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

Analytical Report 651533

for
LT Environmental, Inc.

Project Manager: Dan Moir

PLU CVX JV BS 010H

012919271

07-FEB-20

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



07-FEB-20

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **651533**

PLU CVX JV BS 010H

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 XENCO Report Number(s) 651533. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 651533 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

**Sample Cross Reference 651533****LT Environmental, Inc., Arvada, CO**

PLU CVX JV BS 010H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS06	S	02-04-20 09:45	4 ft	651533-001
FS07	S	02-04-20 09:50	4 ft	651533-002
FS08	S	02-04-20 09:55	4 ft	651533-003
FS09	S	02-04-20 10:00	4 ft	651533-004
FS10	S	02-04-20 10:30	4 ft	651533-005
FS11	S	02-04-20 10:40	4 ft	651533-006
FS12	S	02-04-20 10:45	4 ft	651533-007
FS13	S	02-04-20 10:50	4 ft	651533-008
FS14	S	02-04-20 12:50	4 ft	651533-009
FS15	S	02-04-20 12:55	4 ft	651533-010
FS16	S	02-04-20 13:00	4 ft	651533-011
SW05	S	02-04-20 13:05	0 - 4 ft	651533-012
SW06	S	02-04-20 13:55	0 - 4 ft	651533-013
SW07	S	02-04-20 14:00	0 - 4 ft	651533-014
SW08	S	02-04-20 14:05	0 - 4 ft	651533-015
FS17	S	02-04-20 14:10	4 ft	651533-016
SW09	S	02-04-20 14:30	0 - 4 ft	651533-017
SW10	S	02-04-20 14:35	0 - 4 ft	651533-018
FS18	S	02-04-20 14:40	4 ft	651533-019
FS19	S	02-04-20 14:45	4 ft	651533-020
FS20	S	02-04-20 14:50	2 - 4 ft	651533-021

**CASE NARRATIVE****Client Name: LT Environmental, Inc.****Project Name: PLU CVX JV BS 010H**

Project ID: 012919271
Work Order Number(s): 651533

Report Date: 07-FEB-20
Date Received: 02/06/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3115840 Chloride by EPA 300

Lab Sample ID 651533-007 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 651533-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3115845 BTEX by EPA 8021B

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

Batch: LBA-3115846 BTEX by EPA 8021B

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

Certificate of Analysis Summary 651533



LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV BS 010H

Project Id: 012919271

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Thu Feb-06-20 08:50 am

Report Date: 07-FEB-20

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	651533-001	651533-002	651533-003	651533-004	651533-005	651533-006
	<i>Field Id:</i>	FS06	FS07	FS08	FS09	FS10	FS11
	<i>Depth:</i>	4- ft	4- ft	4- ft	4- ft	4- ft	4- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Feb-04-20 09:45	Feb-04-20 09:50	Feb-04-20 09:55	Feb-04-20 10:00	Feb-04-20 10:30	Feb-04-20 10:40
BTEX by EPA 8021B	<i>Extracted:</i>	Feb-06-20 10:37	Feb-06-20 10:37	Feb-06-20 10:37	Feb-06-20 10:37	Feb-06-20 10:37	Feb-06-20 10:37
	<i>Analyzed:</i>	Feb-06-20 14:47	Feb-06-20 15:08	Feb-06-20 15:28	Feb-06-20 15:48	Feb-06-20 16:09	Feb-06-20 16:29
	<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	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00401 0.00401	<0.00398 0.00398	<0.00402 0.00402	<0.00395 0.00395	<0.00401 0.00401
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Feb-06-20 10:50	Feb-06-20 10:50	Feb-06-20 10:50	Feb-06-20 10:50	Feb-06-20 10:50	Feb-06-20 10:50
	<i>Analyzed:</i>	Feb-06-20 12:36	Feb-06-20 12:41	Feb-06-20 13:34	Feb-06-20 13:39	Feb-06-20 13:45	Feb-06-20 13:50
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		909 9.90	388 10.1	2460 50.1	2790 50.3	4570 49.8	4950 49.5
TPH by SW8015 Mod	<i>Extracted:</i>	Feb-06-20 10:30	Feb-06-20 10:30	Feb-06-20 10:30	Feb-06-20 10:30	Feb-06-20 10:30	Feb-06-20 10:30
	<i>Analyzed:</i>	Feb-06-20 13:14	Feb-06-20 13:14	Feb-06-20 13:34	Feb-06-20 13:34	Feb-06-20 13:53	Feb-06-20 13:53
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.1 50.1	<50.0 50.0
Diesel Range Organics (DRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.1 50.1	101 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.1 50.1	<50.0 50.0
Total GRO-DRO		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.1 50.1	101 50.0
Total TPH		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.1 50.1	101 50.0

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

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 651533



LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV BS 010H

Project Id: 012919271

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Thu Feb-06-20 08:50 am

Report Date: 07-FEB-20

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	651533-007	651533-008	651533-009	651533-010	651533-011	651533-012
	<i>Field Id:</i>	FS12	FS13	FS14	FS15	FS16	SW05
	<i>Depth:</i>	4- ft	4- ft	4- ft	4- ft	4- ft	0-4 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Feb-04-20 10:45	Feb-04-20 10:50	Feb-04-20 12:50	Feb-04-20 12:55	Feb-04-20 13:00	Feb-04-20 13:05
BTEX by EPA 8021B	<i>Extracted:</i>	Feb-06-20 10:37	Feb-06-20 10:37	Feb-06-20 10:37	Feb-06-20 10:37	Feb-06-20 10:37	Feb-06-20 10:37
	<i>Analyzed:</i>	Feb-06-20 17:30	Feb-06-20 17:51	Feb-06-20 18:11	Feb-06-20 18:32	Feb-06-20 18:52	Feb-06-20 19:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00402 0.00402	<0.00401 0.00401	<0.00401 0.00401	<0.00398 0.00398
o-Xylene		<0.00199 0.00199	0.00231 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00199 0.00199	0.00231 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00199 0.00199	0.00231 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	Feb-06-20 10:50	Feb-06-20 10:50	Feb-06-20 10:50	Feb-06-20 10:50	Feb-06-20 10:50	Feb-06-20 10:50
	<i>Analyzed:</i>	Feb-06-20 13:56	Feb-06-20 14:12	Feb-06-20 14:17	Feb-06-20 14:22	Feb-06-20 14:39	Feb-06-20 14:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		6740 50.1	6180 49.8	5160 49.7	2530 49.8	1200 9.96	105 9.90
TPH by SW8015 Mod	<i>Extracted:</i>	Feb-06-20 10:30	Feb-06-20 10:30	Feb-06-20 10:30	Feb-06-20 10:30	Feb-06-20 10:30	Feb-06-20 10:30
	<i>Analyzed:</i>	Feb-06-20 14:13	Feb-06-20 14:33	Feb-06-20 14:33	Feb-06-20 14:52	Feb-06-20 14:52	Feb-06-20 15:12
	<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)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.2 50.2	<49.9 49.9	<49.8 49.8
Diesel Range Organics (DRO)		88.0 49.9	139 50.0	241 50.0	<50.2 50.2	<49.9 49.9	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<50.2 50.2	<49.9 49.9	<49.8 49.8
Total GRO-DRO		88.0 49.9	139 50.0	241 50.0	<50.2 50.2	<49.9 49.9	<49.8 49.8
Total TPH		88.0 49.9	139 50.0	241 50.0	<50.2 50.2	<49.9 49.9	<49.8 49.8

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 651533



LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV BS 010H

Project Id: 012919271

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Thu Feb-06-20 08:50 am

Report Date: 07-FEB-20

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	651533-013	651533-014	651533-015	651533-016	651533-017	651533-018
	<i>Field Id:</i>	SW06	SW07	SW08	FS17	SW09	SW10
	<i>Depth:</i>	0-4 ft	0-4 ft	0-4 ft	4- ft	0-4 ft	0-4 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Feb-04-20 13:55	Feb-04-20 14:00	Feb-04-20 14:05	Feb-04-20 14:10	Feb-04-20 14:30	Feb-04-20 14:35
BTEX by EPA 8021B	<i>Extracted:</i>	Feb-06-20 10:37	Feb-06-20 10:37	Feb-06-20 10:37	Feb-06-20 10:37	Feb-06-20 13:42	Feb-06-20 13:42
	<i>Analyzed:</i>	Feb-06-20 19:33	Feb-06-20 19:53	Feb-06-20 20:14	Feb-06-20 20:34	Feb-06-20 13:47	Feb-06-20 14:08
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00400 0.00400	<0.00396 0.00396	<0.00397 0.00397	<0.00398 0.00398	<0.00400 0.00400	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	Feb-06-20 10:50	Feb-06-20 10:50	Feb-06-20 10:50	Feb-06-20 10:50	Feb-06-20 13:33	Feb-06-20 13:33
	<i>Analyzed:</i>	Feb-06-20 14:49	Feb-06-20 14:55	Feb-06-20 15:00	Feb-06-20 15:06	Feb-06-20 15:38	Feb-06-20 15:54
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		3480 50.0	545 10.1	494 10.0	1080 9.92	230 10.0	12.8 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	Feb-06-20 10:30	Feb-06-20 10:30	Feb-06-20 10:30	Feb-06-20 10:30	Feb-06-20 13:30	Feb-06-20 13:30
	<i>Analyzed:</i>	Feb-06-20 15:12	Feb-06-20 15:32	Feb-06-20 15:32	Feb-06-20 15:52	Feb-06-20 16:34	Feb-06-20 17:14
	<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	<49.8 49.8	<49.9 49.9	<50.2 50.2	<50.1 50.1
Diesel Range Organics (DRO)		<50.0 50.0	<49.8 49.8	<49.8 49.8	<49.9 49.9	<50.2 50.2	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.8 49.8	<49.8 49.8	<49.9 49.9	<50.2 50.2	<50.1 50.1
Total GRO-DRO		<50.0 50.0	<49.8 49.8	<49.8 49.8	<49.9 49.9	<50.2 50.2	<50.1 50.1
Total TPH		<50.0 50.0	<49.8 49.8	<49.8 49.8	<49.9 49.9	<50.2 50.2	<50.1 50.1

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 651533



LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV BS 010H

Project Id: 012919271

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Thu Feb-06-20 08:50 am

Report Date: 07-FEB-20

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	651533-019	651533-020	651533-021			
	<i>Field Id:</i>	FS18	FS19	FS20			
	<i>Depth:</i>	4- ft	4- ft	2-4 ft			
	<i>Matrix:</i>	SOIL	SOIL	SOIL			
	<i>Sampled:</i>	Feb-04-20 14:40	Feb-04-20 14:45	Feb-04-20 14:50			
BTEX by EPA 8021B	<i>Extracted:</i>	Feb-06-20 13:42	Feb-06-20 13:42	Feb-06-20 13:42			
	<i>Analyzed:</i>	Feb-06-20 14:28	Feb-06-20 14:48	Feb-06-20 15:09			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201			
Toluene		<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201			
Ethylbenzene		<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201			
m,p-Xylenes		<0.00402 0.00402	<0.00398 0.00398	<0.00402 0.00402			
o-Xylene		<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201			
Total Xylenes		<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201			
Total BTEX		<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201			
Chloride by EPA 300	<i>Extracted:</i>	Feb-06-20 13:33	Feb-06-20 13:33	Feb-06-20 13:33			
	<i>Analyzed:</i>	Feb-06-20 15:59	Feb-06-20 16:05	Feb-06-20 16:10			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		174 9.96	86.8 9.94	461 9.90			
TPH by SW8015 Mod	<i>Extracted:</i>	Feb-06-20 13:30	Feb-06-20 13:30	Feb-06-20 13:30			
	<i>Analyzed:</i>	Feb-06-20 17:14	Feb-06-20 17:34	Feb-06-20 17:34			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9			
Diesel Range Organics (DRO)		134 50.0	97.3 49.9	204 49.9			
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9			
Total GRO-DRO		134 50.0	97.3 49.9	204 49.9			
Total TPH		134 50.0	97.3 49.9	204 49.9			

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS06**
Lab Sample Id: 651533-001

Matrix: Soil
Date Collected: 02.04.20 09.45

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	909	9.90	mg/kg	02.06.20 12.36		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.06.20 13.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.06.20 13.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.06.20 13.14	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.06.20 13.14	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.06.20 13.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.06.20 13.14	
o-Terphenyl	84-15-1	93	%	70-135	02.06.20 13.14	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS06**
Lab Sample Id: 651533-001

Matrix: Soil
Date Collected: 02.04.20 09.45

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 10.37

Basis: Wet Weight

Seq Number: 3115845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.06.20 14.47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.06.20 14.47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.06.20 14.47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.06.20 14.47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.06.20 14.47	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.06.20 14.47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.06.20 14.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	02.06.20 14.47		
4-Bromofluorobenzene	460-00-4	101	%	70-130	02.06.20 14.47		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS07**
Lab Sample Id: 651533-002

Matrix: Soil
Date Collected: 02.04.20 09.50

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	388	10.1	mg/kg	02.06.20 12.41		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.06.20 13.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.06.20 13.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.06.20 13.14	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.06.20 13.14	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.06.20 13.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.06.20 13.14	
o-Terphenyl	84-15-1	91	%	70-135	02.06.20 13.14	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS07**
Lab Sample Id: 651533-002

Matrix: Soil
Date Collected: 02.04.20 09.50

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 10.37

Basis: Wet Weight

Seq Number: 3115845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.06.20 15.08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.06.20 15.08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.06.20 15.08	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.06.20 15.08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.06.20 15.08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.06.20 15.08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.06.20 15.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	02.06.20 15.08		
4-Bromofluorobenzene	460-00-4	100	%	70-130	02.06.20 15.08		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS08**
Lab Sample Id: 651533-003

Matrix: Soil
Date Collected: 02.04.20 09.55

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2460	50.1	mg/kg	02.06.20 13.34		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.06.20 13.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.06.20 13.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.06.20 13.34	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.06.20 13.34	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.06.20 13.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.06.20 13.34	
o-Terphenyl	84-15-1	102	%	70-135	02.06.20 13.34	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS08**
Lab Sample Id: 651533-003

Matrix: Soil
Date Collected: 02.04.20 09.55

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 10.37

Basis: Wet Weight

Seq Number: 3115845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.06.20 15.28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.06.20 15.28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.06.20 15.28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.06.20 15.28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.06.20 15.28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.06.20 15.28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.06.20 15.28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	02.06.20 15.28		
4-Bromofluorobenzene	460-00-4	99	%	70-130	02.06.20 15.28		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS09**
Lab Sample Id: 651533-004

Matrix: Soil
Date Collected: 02.04.20 10.00

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2790	50.3	mg/kg	02.06.20 13.39		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	02.06.20 13.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	02.06.20 13.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	02.06.20 13.34	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	02.06.20 13.34	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	02.06.20 13.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	02.06.20 13.34	
o-Terphenyl	84-15-1	96	%	70-135	02.06.20 13.34	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS09**
Lab Sample Id: 651533-004

Matrix: Soil
Date Collected: 02.04.20 10.00

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 10.37

Basis: Wet Weight

Seq Number: 3115845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.06.20 15.48	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.06.20 15.48	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.06.20 15.48	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.06.20 15.48	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.06.20 15.48	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.06.20 15.48	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.06.20 15.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	02.06.20 15.48		
4-Bromofluorobenzene	460-00-4	102	%	70-130	02.06.20 15.48		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS10**
Lab Sample Id: 651533-005

Matrix: Soil
Date Collected: 02.04.20 10.30

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4570	49.8	mg/kg	02.06.20 13.45		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.06.20 13.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.06.20 13.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.06.20 13.53	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.06.20 13.53	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.06.20 13.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	02.06.20 13.53	
o-Terphenyl	84-15-1	100	%	70-135	02.06.20 13.53	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS10**
Lab Sample Id: 651533-005

Matrix: Soil
Date Collected: 02.04.20 10.30

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 10.37

Basis: Wet Weight

Seq Number: 3115845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.06.20 16.09	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.06.20 16.09	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.06.20 16.09	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	02.06.20 16.09	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.06.20 16.09	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.06.20 16.09	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.06.20 16.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	02.06.20 16.09		
1,4-Difluorobenzene	540-36-3	106	%	70-130	02.06.20 16.09		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS11**
Lab Sample Id: 651533-006

Matrix: Soil
Date Collected: 02.04.20 10.40

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4950	49.5	mg/kg	02.06.20 13.50		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.06.20 13.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	101	50.0	mg/kg	02.06.20 13.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.06.20 13.53	U	1
Total GRO-DRO	PHC628	101	50.0	mg/kg	02.06.20 13.53		1
Total TPH	PHC635	101	50.0	mg/kg	02.06.20 13.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.06.20 13.53	
o-Terphenyl	84-15-1	99	%	70-135	02.06.20 13.53	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS11**
Lab Sample Id: 651533-006

Matrix: Soil
Date Collected: 02.04.20 10.40

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 10.37

Basis: Wet Weight

Seq Number: 3115845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.06.20 16.29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.06.20 16.29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.06.20 16.29	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.06.20 16.29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.06.20 16.29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.06.20 16.29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.06.20 16.29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	02.06.20 16.29		
4-Bromofluorobenzene	460-00-4	102	%	70-130	02.06.20 16.29		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: FS12
Lab Sample Id: 651533-007

Matrix: Soil
Date Collected: 02.04.20 10.45

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6740	50.1	mg/kg	02.06.20 13.56		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.06.20 14.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	88.0	49.9	mg/kg	02.06.20 14.13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.06.20 14.13	U	1
Total GRO-DRO	PHC628	88.0	49.9	mg/kg	02.06.20 14.13		1
Total TPH	PHC635	88.0	49.9	mg/kg	02.06.20 14.13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	02.06.20 14.13	
o-Terphenyl	84-15-1	101	%	70-135	02.06.20 14.13	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS12**
Lab Sample Id: 651533-007

Matrix: Soil
Date Collected: 02.04.20 10.45

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 10.37

Basis: Wet Weight

Seq Number: 3115845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.06.20 17.30	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.06.20 17.30	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.06.20 17.30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.06.20 17.30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.06.20 17.30	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.06.20 17.30	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.06.20 17.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	02.06.20 17.30		
1,4-Difluorobenzene	540-36-3	104	%	70-130	02.06.20 17.30		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS13**
Lab Sample Id: 651533-008

Matrix: Soil
Date Collected: 02.04.20 10.50

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6180	49.8	mg/kg	02.06.20 14.12		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.06.20 14.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	139	50.0	mg/kg	02.06.20 14.33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.06.20 14.33	U	1
Total GRO-DRO	PHC628	139	50.0	mg/kg	02.06.20 14.33		1
Total TPH	PHC635	139	50.0	mg/kg	02.06.20 14.33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	02.06.20 14.33	
o-Terphenyl	84-15-1	93	%	70-135	02.06.20 14.33	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS13**
Lab Sample Id: 651533-008

Matrix: Soil
Date Collected: 02.04.20 10.50

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3115845

Date Prep: 02.06.20 10.37

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.06.20 17.51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.06.20 17.51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.06.20 17.51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.06.20 17.51	U	1
o-Xylene	95-47-6	0.00231	0.00199	mg/kg	02.06.20 17.51		1
Total Xylenes	1330-20-7	0.00231	0.00199	mg/kg	02.06.20 17.51		1
Total BTEX		0.00231	0.00199	mg/kg	02.06.20 17.51		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	02.06.20 17.51		
1,4-Difluorobenzene	540-36-3	102	%	70-130	02.06.20 17.51		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS14**
Lab Sample Id: 651533-009

Matrix: Soil
Date Collected: 02.04.20 12.50

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5160	49.7	mg/kg	02.06.20 14.17		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.06.20 14.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	241	50.0	mg/kg	02.06.20 14.33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.06.20 14.33	U	1
Total GRO-DRO	PHC628	241	50.0	mg/kg	02.06.20 14.33		1
Total TPH	PHC635	241	50.0	mg/kg	02.06.20 14.33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	02.06.20 14.33	
o-Terphenyl	84-15-1	97	%	70-135	02.06.20 14.33	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS14**
Lab Sample Id: 651533-009

Matrix: Soil
Date Collected: 02.04.20 12.50

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 10.37

Basis: Wet Weight

Seq Number: 3115845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.06.20 18.11	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.06.20 18.11	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.06.20 18.11	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.06.20 18.11	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.06.20 18.11	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.06.20 18.11	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.06.20 18.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	02.06.20 18.11		
4-Bromofluorobenzene	460-00-4	106	%	70-130	02.06.20 18.11		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS15**
Lab Sample Id: 651533-010

Matrix: Soil
Date Collected: 02.04.20 12.55

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2530	49.8	mg/kg	02.06.20 14.22		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.06.20 14.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.06.20 14.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.06.20 14.52	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.06.20 14.52	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.06.20 14.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	02.06.20 14.52	
o-Terphenyl	84-15-1	95	%	70-135	02.06.20 14.52	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS15**
Lab Sample Id: 651533-010

Matrix: Soil
Date Collected: 02.04.20 12.55

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 10.37

Basis: Wet Weight

Seq Number: 3115845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.06.20 18.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.06.20 18.32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.06.20 18.32	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.06.20 18.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.06.20 18.32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.06.20 18.32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.06.20 18.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	02.06.20 18.32		
1,4-Difluorobenzene	540-36-3	100	%	70-130	02.06.20 18.32		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS16**
Lab Sample Id: 651533-011

Matrix: Soil
Date Collected: 02.04.20 13.00

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1200	9.96	mg/kg	02.06.20 14.39		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.06.20 14.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.06.20 14.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.06.20 14.52	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	02.06.20 14.52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.06.20 14.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	02.06.20 14.52	
o-Terphenyl	84-15-1	98	%	70-135	02.06.20 14.52	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS16**
Lab Sample Id: 651533-011

Matrix: Soil
Date Collected: 02.04.20 13.00

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 10.37

Basis: Wet Weight

Seq Number: 3115845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.06.20 18.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.06.20 18.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.06.20 18.52	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	02.06.20 18.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.06.20 18.52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.06.20 18.52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.06.20 18.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	02.06.20 18.52		
1,4-Difluorobenzene	540-36-3	104	%	70-130	02.06.20 18.52		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW05**
Lab Sample Id: 651533-012

Matrix: Soil
Date Collected: 02.04.20 13.05

Date Received: 02.06.20 08.50
Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	105	9.90	mg/kg	02.06.20 14.44		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	02.06.20 15.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	02.06.20 15.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	02.06.20 15.12	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	02.06.20 15.12	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	02.06.20 15.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.06.20 15.12	
o-Terphenyl	84-15-1	102	%	70-135	02.06.20 15.12	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW05**
Lab Sample Id: 651533-012

Matrix: Soil
Date Collected: 02.04.20 13.05

Date Received: 02.06.20 08.50
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 10.37

Basis: Wet Weight

Seq Number: 3115845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.06.20 19.12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.06.20 19.12	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.06.20 19.12	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.06.20 19.12	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.06.20 19.12	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.06.20 19.12	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.06.20 19.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	02.06.20 19.12		
1,4-Difluorobenzene	540-36-3	103	%	70-130	02.06.20 19.12		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW06**
Lab Sample Id: 651533-013

Matrix: Soil
Date Collected: 02.04.20 13.55

Date Received: 02.06.20 08.50
Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3480	50.0	mg/kg	02.06.20 14.49		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.06.20 15.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.06.20 15.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.06.20 15.12	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	02.06.20 15.12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.06.20 15.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	02.06.20 15.12	
o-Terphenyl	84-15-1	90	%	70-135	02.06.20 15.12	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW06**
Lab Sample Id: 651533-013

Matrix: Soil
Date Collected: 02.04.20 13.55

Date Received: 02.06.20 08.50
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 10.37

Basis: Wet Weight

Seq Number: 3115845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.06.20 19.33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.06.20 19.33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.06.20 19.33	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.06.20 19.33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.06.20 19.33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.06.20 19.33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.06.20 19.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	02.06.20 19.33		
4-Bromofluorobenzene	460-00-4	100	%	70-130	02.06.20 19.33		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW07**
Lab Sample Id: 651533-014

Matrix: Soil
Date Collected: 02.04.20 14.00

Date Received: 02.06.20 08.50
Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	545	10.1	mg/kg	02.06.20 14.55		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	02.06.20 15.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	02.06.20 15.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	02.06.20 15.32	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	02.06.20 15.32	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	02.06.20 15.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	02.06.20 15.32	
o-Terphenyl	84-15-1	98	%	70-135	02.06.20 15.32	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW07**
Lab Sample Id: 651533-014

Matrix: Soil
Date Collected: 02.04.20 14.00

Date Received: 02.06.20 08.50
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 10.37

Basis: Wet Weight

Seq Number: 3115845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.06.20 19.53	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.06.20 19.53	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.06.20 19.53	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	02.06.20 19.53	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.06.20 19.53	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.06.20 19.53	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.06.20 19.53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	02.06.20 19.53		
1,4-Difluorobenzene	540-36-3	105	%	70-130	02.06.20 19.53		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW08**
Lab Sample Id: 651533-015

Matrix: Soil
Date Collected: 02.04.20 14.05

Date Received: 02.06.20 08.50
Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	494	10.0	mg/kg	02.06.20 15.00		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	02.06.20 15.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	02.06.20 15.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	02.06.20 15.32	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	02.06.20 15.32	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	02.06.20 15.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	02.06.20 15.32	
o-Terphenyl	84-15-1	98	%	70-135	02.06.20 15.32	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW08**
Lab Sample Id: 651533-015

Matrix: Soil
Date Collected: 02.04.20 14.05

Date Received: 02.06.20 08.50
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 10.37

Basis: Wet Weight

Seq Number: 3115845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.06.20 20.14	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.06.20 20.14	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.06.20 20.14	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	02.06.20 20.14	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.06.20 20.14	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.06.20 20.14	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.06.20 20.14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	02.06.20 20.14		
1,4-Difluorobenzene	540-36-3	103	%	70-130	02.06.20 20.14		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: FS17
Lab Sample Id: 651533-016

Matrix: Soil
Date Collected: 02.04.20 14.10

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115840

Date Prep: 02.06.20 10.50

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1080	9.92	mg/kg	02.06.20 15.06		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115827

Date Prep: 02.06.20 10.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.06.20 15.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.06.20 15.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.06.20 15.52	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	02.06.20 15.52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.06.20 15.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	02.06.20 15.52	
o-Terphenyl	84-15-1	99	%	70-135	02.06.20 15.52	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS17**
Lab Sample Id: 651533-016

Matrix: Soil
Date Collected: 02.04.20 14.10

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 10.37

Basis: Wet Weight

Seq Number: 3115845

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.06.20 20.34	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.06.20 20.34	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.06.20 20.34	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.06.20 20.34	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.06.20 20.34	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.06.20 20.34	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.06.20 20.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	02.06.20 20.34		
1,4-Difluorobenzene	540-36-3	101	%	70-130	02.06.20 20.34		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW09**
Lab Sample Id: 651533-017

Matrix: Soil
Date Collected: 02.04.20 14.30

Date Received: 02.06.20 08.50
Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115842

Date Prep: 02.06.20 13.33

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	230	10.0	mg/kg	02.06.20 15.38		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115857

Date Prep: 02.06.20 13.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	02.06.20 16.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	02.06.20 16.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	02.06.20 16.34	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	02.06.20 16.34	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	02.06.20 16.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	02.06.20 16.34	
o-Terphenyl	84-15-1	97	%	70-135	02.06.20 16.34	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW09**
Lab Sample Id: 651533-017

Matrix: Soil
Date Collected: 02.04.20 14.30

Date Received: 02.06.20 08.50
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 13.42

Basis: Wet Weight

Seq Number: 3115846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.06.20 13.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.06.20 13.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.06.20 13.47	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	02.06.20 13.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.06.20 13.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.06.20 13.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.06.20 13.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	02.06.20 13.47		
4-Bromofluorobenzene	460-00-4	97	%	70-130	02.06.20 13.47		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW10**
Lab Sample Id: 651533-018

Matrix: Soil
Date Collected: 02.04.20 14.35

Date Received: 02.06.20 08.50
Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115842

Date Prep: 02.06.20 13.33

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.8	9.98	mg/kg	02.06.20 15.54		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115857

Date Prep: 02.06.20 13.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	02.06.20 17.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	02.06.20 17.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	02.06.20 17.14	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	02.06.20 17.14	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	02.06.20 17.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	02.06.20 17.14	
o-Terphenyl	84-15-1	104	%	70-135	02.06.20 17.14	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **SW10**
Lab Sample Id: 651533-018

Matrix: Soil
Date Collected: 02.04.20 14.35

Date Received: 02.06.20 08.50
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 13.42

Basis: Wet Weight

Seq Number: 3115846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.06.20 14.08	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.06.20 14.08	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.06.20 14.08	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.06.20 14.08	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.06.20 14.08	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.06.20 14.08	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.06.20 14.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	91	%	70-130	02.06.20 14.08		
4-Bromofluorobenzene	460-00-4	89	%	70-130	02.06.20 14.08		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS18**
Lab Sample Id: 651533-019

Matrix: Soil
Date Collected: 02.04.20 14.40

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115842

Date Prep: 02.06.20 13.33

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	174	9.96	mg/kg	02.06.20 15.59		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115857

Date Prep: 02.06.20 13.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.06.20 17.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	134	50.0	mg/kg	02.06.20 17.14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.06.20 17.14	U	1
Total GRO-DRO	PHC628	134	50.0	mg/kg	02.06.20 17.14		1
Total TPH	PHC635	134	50.0	mg/kg	02.06.20 17.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	02.06.20 17.14	
o-Terphenyl	84-15-1	107	%	70-135	02.06.20 17.14	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS18**
Lab Sample Id: 651533-019

Matrix: Soil
Date Collected: 02.04.20 14.40

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 13.42

Basis: Wet Weight

Seq Number: 3115846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.06.20 14.28	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.06.20 14.28	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.06.20 14.28	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.06.20 14.28	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.06.20 14.28	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.06.20 14.28	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.06.20 14.28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	02.06.20 14.28		
1,4-Difluorobenzene	540-36-3	106	%	70-130	02.06.20 14.28		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS19**
Lab Sample Id: 651533-020

Matrix: Soil
Date Collected: 02.04.20 14.45

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115842

Date Prep: 02.06.20 13.33

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	86.8	9.94	mg/kg	02.06.20 16.05		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115857

Date Prep: 02.06.20 13.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.06.20 17.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	97.3	49.9	mg/kg	02.06.20 17.34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.06.20 17.34	U	1
Total GRO-DRO	PHC628	97.3	49.9	mg/kg	02.06.20 17.34		1
Total TPH	PHC635	97.3	49.9	mg/kg	02.06.20 17.34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	02.06.20 17.34	
o-Terphenyl	84-15-1	98	%	70-135	02.06.20 17.34	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS19**
Lab Sample Id: 651533-020

Matrix: Soil
Date Collected: 02.04.20 14.45

Date Received: 02.06.20 08.50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 13.42

Basis: Wet Weight

Seq Number: 3115846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.06.20 14.48	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.06.20 14.48	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.06.20 14.48	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.06.20 14.48	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.06.20 14.48	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.06.20 14.48	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.06.20 14.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	02.06.20 14.48		
1,4-Difluorobenzene	540-36-3	107	%	70-130	02.06.20 14.48		



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS20**
Lab Sample Id: 651533-021

Matrix: Soil
Date Collected: 02.04.20 14.50

Date Received: 02.06.20 08.50
Sample Depth: 2 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3115842

Date Prep: 02.06.20 13.33

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	461	9.90	mg/kg	02.06.20 16.10		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3115857

Date Prep: 02.06.20 13.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.06.20 17.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	204	49.9	mg/kg	02.06.20 17.34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.06.20 17.34	U	1
Total GRO-DRO	PHC628	204	49.9	mg/kg	02.06.20 17.34		1
Total TPH	PHC635	204	49.9	mg/kg	02.06.20 17.34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	02.06.20 17.34	
o-Terphenyl	84-15-1	101	%	70-135	02.06.20 17.34	



Certificate of Analytical Results 651533

LT Environmental, Inc., Arvada, CO

PLU CVX JV BS 010H

Sample Id: **FS20**
Lab Sample Id: 651533-021

Matrix: Soil
Date Collected: 02.04.20 14.50

Date Received: 02.06.20 08.50
Sample Depth: 2 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 02.06.20 13.42

Basis: Wet Weight

Seq Number: 3115846

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	02.06.20 15.09	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	02.06.20 15.09	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	02.06.20 15.09	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	02.06.20 15.09	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	02.06.20 15.09	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	02.06.20 15.09	U	1
Total BTEX		<0.00201	0.00201	mg/kg	02.06.20 15.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	02.06.20 15.09		
4-Bromofluorobenzene	460-00-4	97	%	70-130	02.06.20 15.09		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

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 CVX JV BS 010H

Analytical Method: Chloride by EPA 300

Seq Number: 3115840

MB Sample Id: 7696132-1-BLK

Matrix: Solid

LCS Sample Id: 7696132-1-BKS

Prep Method: E300P

Date Prep: 02.06.20

LCSD Sample Id: 7696132-1-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	258	103	258	103	90-110	0	20	mg/kg	02.06.20 11:53	

Analytical Method: Chloride by EPA 300

Seq Number: 3115842

MB Sample Id: 7696133-1-BLK

Matrix: Solid

LCS Sample Id: 7696133-1-BKS

Prep Method: E300P

Date Prep: 02.06.20

LCSD Sample Id: 7696133-1-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	243	97	250	100	90-110	3	20	mg/kg	02.06.20 15:27	

Analytical Method: Chloride by EPA 300

Seq Number: 3115840

Parent Sample Id: 651528-001

Matrix: Soil

MS Sample Id: 651528-001 S

Prep Method: E300P

Date Prep: 02.06.20

MSD Sample Id: 651528-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	370	201	580	104	588	108	90-110	1	20	mg/kg	02.06.20 12:09	

Analytical Method: Chloride by EPA 300

Seq Number: 3115840

Parent Sample Id: 651533-007

Matrix: Soil

MS Sample Id: 651533-007 S

Prep Method: E300P

Date Prep: 02.06.20

MSD Sample Id: 651533-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6740	996	8010	128	8000	127	90-110	0	20	mg/kg	02.06.20 14:01	X

Analytical Method: Chloride by EPA 300

Seq Number: 3115842

Parent Sample Id: 651533-017

Matrix: Soil

MS Sample Id: 651533-017 S

Prep Method: E300P

Date Prep: 02.06.20

MSD Sample Id: 651533-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	230	201	443	106	442	105	90-110	0	20	mg/kg	02.06.20 15:43	

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. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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 CVX JV BS 010H

Analytical Method: Chloride by EPA 300

Seq Number: 3115842

Parent Sample Id: 651625-003

Matrix: Soil

MS Sample Id: 651625-003 S

Prep Method: E300P

Date Prep: 02.06.20

MSD Sample Id: 651625-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	388	198	594	104	598	106	90-110	1	20	mg/kg	02.06.20 17:58	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115827

MB Sample Id: 7696122-1-BLK

Matrix: Solid

LCS Sample Id: 7696122-1-BKS

Prep Method: SW8015P

Date Prep: 02.06.20

LCSD Sample Id: 7696122-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1150	115	1030	103	70-135	11	35	mg/kg	02.06.20 11:56	
Diesel Range Organics (DRO)	<50.0	1000	1170	117	1040	104	70-135	12	35	mg/kg	02.06.20 11:56	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		127		111		70-135	%	02.06.20 11:56
o-Terphenyl	93		115		104		70-135	%	02.06.20 11:56

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115857

MB Sample Id: 7696155-1-BLK

Matrix: Solid

LCS Sample Id: 7696155-1-BKS

Prep Method: SW8015P

Date Prep: 02.06.20

LCSD Sample Id: 7696155-1-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	1110	111	1010	101	70-135	9	35	mg/kg	02.06.20 16:12	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1040	104	70-135	7	35	mg/kg	02.06.20 16:12	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		120		126		70-135	%	02.06.20 16:12
o-Terphenyl	93		109		106		70-135	%	02.06.20 16:12

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115827

Matrix: Solid

MB Sample Id: 7696122-1-BLK

Prep Method: SW8015P

Date Prep: 02.06.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.06.20 11:37	

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 CVX JV BS 010H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115857

Matrix: Solid

Prep Method: SW8015P

Date Prep: 02.06.20

MB Sample Id: 7696155-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.06.20 16:12	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115827

Matrix: Soil

Prep Method: SW8015P

Date Prep: 02.06.20

Parent Sample Id: 651528-001

MS Sample Id: 651528-001 S

MSD Sample Id: 651528-001 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	1110	111	1130	113	70-135	2	35	mg/kg	02.06.20 12:15	
Diesel Range Organics (DRO)	<50.2	1000	1130	113	1180	118	70-135	4	35	mg/kg	02.06.20 12:15	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		124		70-135	%	02.06.20 12:15
o-Terphenyl	111		113		70-135	%	02.06.20 12:15

Analytical Method: TPH by SW8015 Mod

Seq Number: 3115857

Matrix: Soil

Prep Method: SW8015P

Date Prep: 02.06.20

Parent Sample Id: 651533-017

MS Sample Id: 651533-017 S

MSD Sample Id: 651533-017 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)	<50.1	1000	1240	124	1090	109	70-135	13	35	mg/kg	02.06.20 16:54	
Diesel Range Organics (DRO)	<50.1	1000	1100	110	1120	112	70-135	2	35	mg/kg	02.06.20 16:54	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		119		70-135	%	02.06.20 16:54
o-Terphenyl	121		110		70-135	%	02.06.20 16:54

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



LT Environmental, Inc.

PLU CVX JV BS 010H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3115845

MB Sample Id: 7696134-1-BLK

Matrix: Solid

LCS Sample Id: 7696134-1-BKS

Prep Method: SW5030B

Date Prep: 02.06.20

LCSD Sample Id: 7696134-1-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	0.109	109	0.0915	92	70-130	17	35	mg/kg	02.06.20 11:44	
Toluene	<0.00200	0.100	0.105	105	0.0845	85	70-130	22	35	mg/kg	02.06.20 11:44	
Ethylbenzene	<0.00200	0.100	0.0992	99	0.0744	74	71-129	29	35	mg/kg	02.06.20 11:44	
m,p-Xylenes	<0.00400	0.200	0.204	102	0.151	76	70-135	30	35	mg/kg	02.06.20 11:44	
o-Xylene	<0.00200	0.100	0.103	103	0.0783	78	71-133	27	35	mg/kg	02.06.20 11:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		104		102		70-130	%	02.06.20 11:44
4-Bromofluorobenzene	96		97		96		70-130	%	02.06.20 11:44

Analytical Method: BTEX by EPA 8021B

Seq Number: 3115846

MB Sample Id: 7696136-1-BLK

Matrix: Solid

LCS Sample Id: 7696136-1-BKS

Prep Method: SW5030B

Date Prep: 02.06.20

LCSD Sample Id: 7696136-1-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	0.124	124	0.123	123	70-130	1	35	mg/kg	02.06.20 12:05	
Toluene	<0.00200	0.100	0.114	114	0.113	113	70-130	1	35	mg/kg	02.06.20 12:05	
Ethylbenzene	<0.00200	0.100	0.110	110	0.110	110	71-129	0	35	mg/kg	02.06.20 12:05	
m,p-Xylenes	<0.00400	0.200	0.217	109	0.215	108	70-135	1	35	mg/kg	02.06.20 12:05	
o-Xylene	<0.00200	0.100	0.108	108	0.107	107	71-133	1	35	mg/kg	02.06.20 12:05	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		109		109		70-130	%	02.06.20 12:05
4-Bromofluorobenzene	94		92		92		70-130	%	02.06.20 12:05

Analytical Method: BTEX by EPA 8021B

Seq Number: 3115845

Parent Sample Id: 651528-001

Matrix: Soil

MS Sample Id: 651528-001 S

Prep Method: SW5030B

Date Prep: 02.06.20

MSD Sample Id: 651528-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0990	0.121	122	0.103	103	70-130	16	35	mg/kg	02.06.20 12:25	
Toluene	<0.00198	0.0990	0.117	118	0.0984	98	70-130	17	35	mg/kg	02.06.20 12:25	
Ethylbenzene	<0.00198	0.0990	0.112	113	0.0945	95	71-129	17	35	mg/kg	02.06.20 12:25	
m,p-Xylenes	<0.00396	0.198	0.231	117	0.194	97	70-135	17	35	mg/kg	02.06.20 12:25	
o-Xylene	<0.00198	0.0990	0.115	116	0.0969	97	71-133	17	35	mg/kg	02.06.20 12:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		105		70-130	%	02.06.20 12:25
4-Bromofluorobenzene	98		99		70-130	%	02.06.20 12:25

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 CVX JV BS 010H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3115846

Parent Sample Id: 651533-017

Matrix: Soil

MS Sample Id: 651533-017 S

Prep Method: SW5030B

Date Prep: 02.06.20

MSD Sample Id: 651533-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.129	129	0.117	116	70-130	10	35	mg/kg	02.06.20 12:46	
Toluene	<0.00200	0.0998	0.118	118	0.107	106	70-130	10	35	mg/kg	02.06.20 12:46	
Ethylbenzene	<0.00200	0.0998	0.114	114	0.102	101	71-129	11	35	mg/kg	02.06.20 12:46	
m,p-Xylenes	<0.00399	0.200	0.223	112	0.200	99	70-135	11	35	mg/kg	02.06.20 12:46	
o-Xylene	<0.00200	0.0998	0.111	111	0.100	99	71-133	10	35	mg/kg	02.06.20 12:46	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		109		70-130	%	02.06.20 12:46
4-Bromofluorobenzene	93		96		70-130	%	02.06.20 12:46

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



Chain of Custody

Work Order No: 051533

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

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

www.xenco.com Page 1 of 3

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

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

Project Name:	PLU CVX JV BS 010H	Turn Around	
Project Number:	012919271	Routine	☐
P.O. Number:	Eddy County	Rush: 48 hr	
Sampler's Name:	Elizabeth Naka	Due Date:	

SAMPLE RECEIPT				ANALYSIS REQUEST				Work Order Notes	
Temperature (°C):	Temp Blank:	Yes	No	Wet Ice:	Yes	No			
Received Intact:	Yes	No	Thermometer ID						
Cooler Custody Seals:	Yes	No	Correction Factor:						
Sample Custody Seals:	Yes	No	Total Containers:						
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers				
FS06	S	2/4/20	0945	4'	1				
FS07			0950			X	TPH (EPA 8015)		
FS08			0955			X	BTEX (EPA 0=8021)		
FS09			1000			X	Chloride (EPA 300.0)		
FS10			1030						
FS11			1040						
FS12			1045						
FS13			1050						
FS14			1250						
FS15			1255						

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Elizabeth Naka</i>	<i>Wick</i>	2/6/20 8:00am	<i>Wick</i>	<i>Wick</i>	2/6/20 08:50



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

www.xenco.com Page 2 of 3

Work Order No: 671533

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

Project Name:	PLU CVX JV P5 C10H	Turn Around	
Project Number:	612919271	Routine	☐
P.O. Number:		Rush:	48hr
Sampler's Name:	Elizabeth Naka	Due Date:	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	ANALYSIS REQUEST													Work Order Notes
FS16	5	2/4/20	1300	4'	TPH (EPA 8015)	X	BTEX (EPA 0-8021)	X	Chloride (EPA 300.0)	X								TAT starts the day received by the lab, if received by 4:30pm
SW05			1305	0'-4'														Sample Comments
SV06			1355															
SW07			1400															
SW08			1405															
FS07			1410	4'														
SW09			1430	0'-4'														
SW10			1435	0'-4'														
FS18			1440	4'														
FS19			1445	4'														

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 service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Elizabeth Naka</i>	<i>Walt Wy</i>	2/6/20 / 8:00am	<i>Walt Wy</i>		



Chain of Custody

Work Order No.:

45,533

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3333
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
(575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-291-1111)

www.xenco.com Page 3 of 3

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

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

Project Name:	PLU CUX JV BS 0104			Turn Around
Project Number:	0129192271			Routine ☐
P.O. Number:				Rush: ☒
Sampler's Name:	Elizabeth Naka			Due Date:

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

[illegible]

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA)	BTEX (EPA)	Chloride	lab, if received by 4:30pm	
									Sample Comments	
FS26	S	2/4/10	1450	2'-4'	1	X	X	X		
Pigman Mde										
composite										
Total 200.7 / 6010 200.8 / 6020:										
8RCRA 13PPM Towed 11 Al St A B D S C 10										

Total	200.7 / 6010	200.8 / 6020:	
<i>Circle Method(s) and Metal(s) to be analyzed</i>			
	8RCRA	13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
	TCLP / SPLP	6010: 8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.			
			1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Elizabeth Allen</i>	<i>Christy W</i>	2/6/20 / 8:00am	<i>Christy W</i>		

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02.06.2020 08.50.00 AM

Work Order #: 651533

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)?	.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

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 02.06.2020

Checklist reviewed by:



Jessica Kramer

Date: 02.07.2020



Certificate of Analysis Summary 660709

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVS JV BS 010H

Project Id: 012919271

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue 05.05.2020 17:02

Report Date: 05.07.2020 15:35

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660709-001	660709-002	660709-003	660709-004	660709-005	660709-006
	<i>Field Id:</i>	SW06 A	SW06 B	PH01	PH01A	PH02	PH02A
	<i>Depth:</i>	0-4 ft	0-4 ft	6- ft	8- ft	6- ft	8- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.05.2020 11:49	05.05.2020 11:53	05.05.2020 12:53	05.05.2020 12:33	05.05.2020 12:40	05.05.2020 12:50
BTEX by EPA 8021B	<i>Extracted:</i>	05.06.2020 14:00	05.06.2020 14:00	05.06.2020 14:00	05.06.2020 14:00	05.06.2020 14:00	05.06.2020 14:00
	<i>Analyzed:</i>	05.06.2020 20:37	05.06.2020 20:58	05.06.2020 21:19	05.06.2020 21:41	05.06.2020 22:02	05.06.2020 22:24
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399	<0.00400 0.00400	<0.00399 0.00399	<0.00397 0.00397	<0.00399 0.00399
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	05.06.2020 10:00	05.06.2020 10:00	05.06.2020 10:00	05.06.2020 10:00	05.06.2020 10:00	05.06.2020 10:00
	<i>Analyzed:</i>	05.06.2020 14:18	05.06.2020 14:24	05.06.2020 14:30	05.06.2020 14:35	05.06.2020 14:41	05.06.2020 14:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		2030 49.5	137 10.0	8350 99.8	4360 99.0	342 99.8	163 99.8
TPH by SW8015 Mod	<i>Extracted:</i>	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00	05.06.2020 17:00
	<i>Analyzed:</i>	05.06.2020 22:17	05.06.2020 22:37	05.06.2020 22:58	05.06.2020 23:18	05.06.2020 23:38	05.06.2020 23:59
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.0 50.0	<49.8 49.8	<49.8 49.8	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)		<49.8 49.8	<50.0 50.0	<49.8 49.8	<49.8 49.8	<49.8 49.8	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.0 50.0	<49.8 49.8	<49.8 49.8	<49.8 49.8	<50.0 50.0
Total GRO-DRO		<49.8 49.8	<50.0 50.0	<49.8 49.8	<49.8 49.8	<49.8 49.8	<50.0 50.0
Total TPH		<49.8 49.8	<50.0 50.0	<49.8 49.8	<49.8 49.8	<49.8 49.8	<50.0 50.0

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

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 660709

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVS JV BS 010H

Project Id: 012919271

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue 05.05.2020 17:02

Report Date: 05.07.2020 15:35

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	660709-007	660709-008				
	Field Id:	PH03	PH03A				
	Depth:	6- ft	8- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	05.05.2020 13:10	05.05.2020 13:20				
BTEX by EPA 8021B	Extracted:	05.06.2020 14:00	05.06.2020 14:00				
	Analyzed:	05.06.2020 22:45	05.06.2020 23:06				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00198 0.00198	<0.00200 0.00200				
Toluene		<0.00198 0.00198	<0.00200 0.00200				
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200				
m,p-Xylenes		<0.00397 0.00397	<0.00399 0.00399				
o-Xylene		<0.00198 0.00198	<0.00200 0.00200				
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200				
Total BTEX		<0.00198 0.00198	<0.00200 0.00200				
Chloride by EPA 300	Extracted:	05.06.2020 10:00	05.06.2020 14:00				
	Analyzed:	05.06.2020 14:53	05.06.2020 16:08				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		1400 9.90	422 99.8				
TPH by SW8015 Mod	Extracted:	05.06.2020 17:00	05.06.2020 17:00				
	Analyzed:	05.07.2020 00:19	05.06.2020 17:53				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.1 50.1				
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1				
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1				
Total GRO-DRO		<50.2 50.2	<50.1 50.1				
Total TPH		<50.2 50.2	<50.1 50.1				

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

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

Jessica Kramer
Project Manager



Analytical Report 660709

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU CVS JV BS 010H

012919271

05.07.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.07.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **660709**

PLU CVS JV BS 010H

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 XENCO Report Number(s) 660709. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 660709 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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 660709****LT Environmental, Inc., Arvada, CO**

PLU CVS JV BS 010H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW06 A	S	05.05.2020 11:49	0 - 4 ft	660709-001
SW06 B	S	05.05.2020 11:53	0 - 4 ft	660709-002
PH01	S	05.05.2020 12:53	6 ft	660709-003
PH01A	S	05.05.2020 12:33	8 ft	660709-004
PH02	S	05.05.2020 12:40	6 ft	660709-005
PH02A	S	05.05.2020 12:50	8 ft	660709-006
PH03	S	05.05.2020 13:10	6 ft	660709-007
PH03A	S	05.05.2020 13:20	8 ft	660709-008



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *PLU CVS JV BS 010H*

Project ID: 012919271
Work Order Number(s): 660709

Report Date: 05.07.2020
Date Received: 05.05.2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **SW06 A**
Lab Sample Id: 660709-001

Matrix: Soil
Date Collected: 05.05.2020 11:49

Date Received: 05.05.2020 17:02
Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3125245

Date Prep: 05.06.2020 10:00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2030	49.5	mg/kg	05.06.2020 14:18		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3125293

Date Prep: 05.06.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.06.2020 22:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.06.2020 22:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.06.2020 22:17	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.06.2020 22:17	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.06.2020 22:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	05.06.2020 22:17	
o-Terphenyl	84-15-1	122	%	70-135	05.06.2020 22:17	



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **SW06 A**
Lab Sample Id: 660709-001

Matrix: Soil
Date Collected: 05.05.2020 11:49

Date Received: 05.05.2020 17:02
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3125244

Prep Method: SW5035A

% Moisture:

Date Prep: 05.06.2020 14:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.06.2020 20:37	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.06.2020 20:37	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.06.2020 20:37	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.06.2020 20:37	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.06.2020 20:37	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.06.2020 20:37	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.06.2020 20:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.06.2020 20:37		
4-Bromofluorobenzene	460-00-4	112	%	70-130	05.06.2020 20:37		



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **SW06 B**
Lab Sample Id: 660709-002

Matrix: Soil
Date Collected: 05.05.2020 11:53

Date Received: 05.05.2020 17:02
Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3125245

Date Prep: 05.06.2020 10:00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	137	10.0	mg/kg	05.06.2020 14:24		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3125293

Date Prep: 05.06.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.06.2020 22:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.06.2020 22:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.06.2020 22:37	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.06.2020 22:37	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.06.2020 22:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	05.06.2020 22:37	
o-Terphenyl	84-15-1	124	%	70-135	05.06.2020 22:37	



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **SW06 B**
Lab Sample Id: 660709-002

Matrix: Soil
Date Collected: 05.05.2020 11:53

Date Received: 05.05.2020 17:02
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 14:00

Basis: Wet Weight

Seq Number: 3125244

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.06.2020 20:58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.06.2020 20:58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.06.2020 20:58	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.06.2020 20:58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.06.2020 20:58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.06.2020 20:58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.06.2020 20:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	05.06.2020 20:58	
1,4-Difluorobenzene	540-36-3	93	%	70-130	05.06.2020 20:58	



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **PH01**
Lab Sample Id: 660709-003

Matrix: Soil
Date Collected: 05.05.2020 12:53

Date Received: 05.05.2020 17:02
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3125245

Date Prep: 05.06.2020 10:00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8350	99.8	mg/kg	05.06.2020 14:30		10

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3125293

Date Prep: 05.06.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.06.2020 22:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.06.2020 22:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.06.2020 22:58	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.06.2020 22:58	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.06.2020 22:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	05.06.2020 22:58	
o-Terphenyl	84-15-1	120	%	70-135	05.06.2020 22:58	



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **PH01**
Lab Sample Id: 660709-003

Matrix: Soil
Date Collected: 05.05.2020 12:53

Date Received: 05.05.2020 17:02
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 14:00

Basis: Wet Weight

Seq Number: 3125244

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.06.2020 21:19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.06.2020 21:19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.06.2020 21:19	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.06.2020 21:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.06.2020 21:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.06.2020 21:19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.06.2020 21:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.06.2020 21:19	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.06.2020 21:19	



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **PH01A**
Lab Sample Id: 660709-004

Matrix: Soil
Date Collected: 05.05.2020 12:33

Date Received: 05.05.2020 17:02
Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3125245

Date Prep: 05.06.2020 10:00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4360	99.0	mg/kg	05.06.2020 14:35		10

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3125293

Date Prep: 05.06.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.06.2020 23:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.06.2020 23:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.06.2020 23:18	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.06.2020 23:18	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.06.2020 23:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	05.06.2020 23:18	
o-Terphenyl	84-15-1	123	%	70-135	05.06.2020 23:18	



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **PH01A**
Lab Sample Id: 660709-004

Matrix: Soil
Date Collected: 05.05.2020 12:33

Date Received: 05.05.2020 17:02
Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 14:00

Basis: Wet Weight

Seq Number: 3125244

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.06.2020 21:41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.06.2020 21:41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.06.2020 21:41	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.06.2020 21:41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.06.2020 21:41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.06.2020 21:41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.06.2020 21:41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.06.2020 21:41		
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.06.2020 21:41		



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **PH02**
Lab Sample Id: 660709-005

Matrix: Soil
Date Collected: 05.05.2020 12:40

Date Received: 05.05.2020 17:02
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3125245

Date Prep: 05.06.2020 10:00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	342	99.8	mg/kg	05.06.2020 14:41		10

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3125293

Date Prep: 05.06.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.06.2020 23:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.06.2020 23:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.06.2020 23:38	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.06.2020 23:38	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.06.2020 23:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	05.06.2020 23:38	
o-Terphenyl	84-15-1	124	%	70-135	05.06.2020 23:38	



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **PH02**
Lab Sample Id: 660709-005

Matrix: Soil
Date Collected: 05.05.2020 12:40

Date Received: 05.05.2020 17:02
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 14:00

Basis: Wet Weight

Seq Number: 3125244

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.06.2020 22:02	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.06.2020 22:02	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.06.2020 22:02	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.06.2020 22:02	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.06.2020 22:02	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.06.2020 22:02	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.06.2020 22:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	05.06.2020 22:02	
4-Bromofluorobenzene	460-00-4	111	%	70-130	05.06.2020 22:02	



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **PH02A**
Lab Sample Id: 660709-006

Matrix: Soil
Date Collected: 05.05.2020 12:50

Date Received: 05.05.2020 17:02
Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3125245

Date Prep: 05.06.2020 10:00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	163	99.8	mg/kg	05.06.2020 14:47		10

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3125293

Date Prep: 05.06.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.06.2020 23:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.06.2020 23:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.06.2020 23:59	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.06.2020 23:59	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.06.2020 23:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	05.06.2020 23:59	
o-Terphenyl	84-15-1	128	%	70-135	05.06.2020 23:59	



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **PH02A**
Lab Sample Id: 660709-006

Matrix: Soil
Date Collected: 05.05.2020 12:50

Date Received: 05.05.2020 17:02
Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 14:00

Basis: Wet Weight

Seq Number: 3125244

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.06.2020 22:24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.06.2020 22:24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.06.2020 22:24	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.06.2020 22:24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.06.2020 22:24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.06.2020 22:24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.06.2020 22:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	05.06.2020 22:24	
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.06.2020 22:24	



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **PH03**
Lab Sample Id: 660709-007

Matrix: Soil
Date Collected: 05.05.2020 13:10

Date Received: 05.05.2020 17:02
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3125245

Date Prep: 05.06.2020 10:00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1400	9.90	mg/kg	05.06.2020 14:53		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3125293

Date Prep: 05.06.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.07.2020 00:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.07.2020 00:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.07.2020 00:19	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.07.2020 00:19	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.07.2020 00:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	05.07.2020 00:19	
o-Terphenyl	84-15-1	120	%	70-135	05.07.2020 00:19	



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **PH03**
Lab Sample Id: 660709-007

Matrix: Soil
Date Collected: 05.05.2020 13:10

Date Received: 05.05.2020 17:02
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 14:00

Basis: Wet Weight

Seq Number: 3125244

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.06.2020 22:45	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.06.2020 22:45	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.06.2020 22:45	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.06.2020 22:45	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.06.2020 22:45	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.06.2020 22:45	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.06.2020 22:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.06.2020 22:45		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.06.2020 22:45		



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **PH03A**
Lab Sample Id: 660709-008

Matrix: Soil
Date Collected: 05.05.2020 13:20

Date Received: 05.05.2020 17:02
Sample Depth: 8 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3125246

Date Prep: 05.06.2020 14:00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	422	99.8	mg/kg	05.06.2020 16:08		10

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3125289

Date Prep: 05.06.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.06.2020 17:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.06.2020 17:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.06.2020 17:53	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.06.2020 17:53	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.06.2020 17:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	05.06.2020 17:53	
o-Terphenyl	84-15-1	104	%	70-135	05.06.2020 17:53	



Certificate of Analytical Results 660709

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS 010H

Sample Id: **PH03A**
Lab Sample Id: 660709-008

Matrix: Soil
Date Collected: 05.05.2020 13:20

Date Received: 05.05.2020 17:02
Sample Depth: 8 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.06.2020 14:00

Basis: Wet Weight

Seq Number: 3125244

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.06.2020 23:06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.06.2020 23:06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.06.2020 23:06	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.06.2020 23:06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.06.2020 23:06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.06.2020 23:06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.06.2020 23:06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	05.06.2020 23:06		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.06.2020 23:06		



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 CVS JV BS 010H

Analytical Method: Chloride by EPA 300

Seq Number: 3125245

MB Sample Id: 7702826-1-BLK

Matrix: Solid

LCS Sample Id: 7702826-1-BKS

Prep Method: E300P

Date Prep: 05.06.2020

LCSD Sample Id: 7702826-1-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	252	101	250	100	90-110	1	20	mg/kg	05.06.2020 12:05	

Analytical Method: Chloride by EPA 300

Seq Number: 3125246

MB Sample Id: 7702827-1-BLK

Matrix: Solid

LCS Sample Id: 7702827-1-BKS

Prep Method: E300P

Date Prep: 05.06.2020

LCSD Sample Id: 7702827-1-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	251	100	250	100	90-110	0	20	mg/kg	05.06.2020 15:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3125245

Parent Sample Id: 660685-004

Matrix: Soil

MS Sample Id: 660685-004 S

Prep Method: E300P

Date Prep: 05.06.2020

MSD Sample Id: 660685-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	464	200	658	97	655	96	90-110	0	20	mg/kg	05.06.2020 12:22	

Analytical Method: Chloride by EPA 300

Seq Number: 3125245

Parent Sample Id: 660708-010

Matrix: Soil

MS Sample Id: 660708-010 S

Prep Method: E300P

Date Prep: 05.06.2020

MSD Sample Id: 660708-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	36.4	200	234	99	234	99	90-110	0	20	mg/kg	05.06.2020 13:43	

Analytical Method: Chloride by EPA 300

Seq Number: 3125246

Parent Sample Id: 660711-008

Matrix: Soil

MS Sample Id: 660711-008 S

Prep Method: E300P

Date Prep: 05.06.2020

MSD Sample Id: 660711-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	180	199	369	95	369	95	90-110	0	20	mg/kg	05.06.2020 17:11	

Analytical Method: Chloride by EPA 300

Seq Number: 3125246

Parent Sample Id: 660732-001

Matrix: Soil

MS Sample Id: 660732-001 S

Prep Method: E300P

Date Prep: 05.06.2020

MSD Sample Id: 660732-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	475	200	661	93	659	92	90-110	0	20	mg/kg	05.06.2020 15:51	

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 CVS JV BS 010H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125289

MB Sample Id: 7702864-1-BLK

Matrix: Solid

LCS Sample Id: 7702864-1-BKS

Prep Method: SW8015P

Date Prep: 05.06.2020

LCSD Sample Id: 7702864-1-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	1140	114	1100	110	70-135	4	35	mg/kg	05.06.2020 16:11	
Diesel Range Organics (DRO)	<50.0	1000	1230	123	1140	114	70-135	8	35	mg/kg	05.06.2020 16:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		117		128		70-135	%	05.06.2020 16:11
o-Terphenyl	90		107		101		70-135	%	05.06.2020 16:11

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125293

MB Sample Id: 7702869-1-BLK

Matrix: Solid

LCS Sample Id: 7702869-1-BKS

Prep Method: SW8015P

Date Prep: 05.06.2020

LCSD Sample Id: 7702869-1-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	1160	116	1120	112	70-135	4	35	mg/kg	05.06.2020 16:11	
Diesel Range Organics (DRO)	<50.0	1000	1250	125	1210	121	70-135	3	35	mg/kg	05.06.2020 16:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		135		132		70-135	%	05.06.2020 16:11
o-Terphenyl	119		120		118		70-135	%	05.06.2020 16:11

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125289

Matrix: Solid

MB Sample Id: 7702864-1-BLK

Prep Method: SW8015P

Date Prep: 05.06.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.06.2020 15:51	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125293

Matrix: Solid

MB Sample Id: 7702869-1-BLK

Prep Method: SW8015P

Date Prep: 05.06.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.06.2020 15:51	

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 CVS JV BS 010H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125289

Parent Sample Id: 660733-001

Matrix: Soil

MS Sample Id: 660733-001 S

Prep Method: SW8015P

Date Prep: 05.06.2020

MSD Sample Id: 660733-001 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)	<50.1	1000	1070	107	1040	104	70-135	3	35	mg/kg	05.06.2020 17:12	
Diesel Range Organics (DRO)	<50.1	1000	1140	114	1190	119	70-135	4	35	mg/kg	05.06.2020 17:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		71		70-135	%	05.06.2020 17:12
o-Terphenyl	100		76		70-135	%	05.06.2020 17:12

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125293

Parent Sample Id: 660732-001

Matrix: Soil

MS Sample Id: 660732-001 S

Prep Method: SW8015P

Date Prep: 05.06.2020

MSD Sample Id: 660732-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1150	115	1130	114	70-135	2	35	mg/kg	05.06.2020 17:12	
Diesel Range Organics (DRO)	<50.0	1000	1160	116	1170	118	70-135	1	35	mg/kg	05.06.2020 17:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		133		70-135	%	05.06.2020 17:12
o-Terphenyl	117		117		70-135	%	05.06.2020 17:12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125244

MB Sample Id: 7702855-1-BLK

Matrix: Solid

LCS Sample Id: 7702855-1-BKS

Prep Method: SW5035A

Date Prep: 05.06.2020

LCSD Sample Id: 7702855-1-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	0.120	120	0.122	122	70-130	2	35	mg/kg	05.06.2020 14:12	
Toluene	<0.00200	0.100	0.110	110	0.112	112	70-130	2	35	mg/kg	05.06.2020 14:12	
Ethylbenzene	<0.00200	0.100	0.104	104	0.107	107	71-129	3	35	mg/kg	05.06.2020 14:12	
m,p-Xylenes	<0.00400	0.200	0.203	102	0.208	104	70-135	2	35	mg/kg	05.06.2020 14:12	
o-Xylene	<0.00200	0.100	0.102	102	0.105	105	71-133	3	35	mg/kg	05.06.2020 14:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	115		107		108		70-130	%	05.06.2020 14:12
4-Bromofluorobenzene	106		100		99		70-130	%	05.06.2020 14:12

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 CVS JV BS 010H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125244

Parent Sample Id: 660566-004

Matrix: Soil

MS Sample Id: 660566-004 S

Prep Method: SW5035A

Date Prep: 05.06.2020

MSD Sample Id: 660566-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.120	121	0.125	124	70-130	4	35	mg/kg	05.06.2020 14:54	
Toluene	<0.00198	0.0992	0.117	118	0.112	111	70-130	4	35	mg/kg	05.06.2020 14:54	
Ethylbenzene	<0.00198	0.0992	0.109	110	0.101	100	71-129	8	35	mg/kg	05.06.2020 14:54	
m,p-Xylenes	<0.00397	0.198	0.211	107	0.195	97	70-135	8	35	mg/kg	05.06.2020 14:54	
o-Xylene	<0.00198	0.0992	0.107	108	0.0990	98	71-133	8	35	mg/kg	05.06.2020 14:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		108		70-130	%	05.06.2020 14:54
4-Bromofluorobenzene	102		101		70-130	%	05.06.2020 14:54

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:

1631 / 245.1 / 7470 / 7471

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 (575-382-7550) 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 Little
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	emoreno@ltenv.com, dmoir@ltenv.com

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

Project Name:	PLU CVS JV BS 010H	Turn Around	
Project Number:	012919271	Routine ☒	
P.O. Number:		Rush:	
Sampler's Name:	Ezequiel Moreno	Due Date:	

SAMPLE RECEIPT		Temp Blank:	Yes ☐ No ☒	Wet Ice:	Yes ☐ No ☒
Temperature (°C):	4.0	Thermometer ID	TMM007		
Received Intact:	Yes ☒ No ☐	Correction Factor:	-0.2		
Cooler Custody Seals:	Yes ☒ No ☐ N/A	Total Containers:	8		
Sample Custody Seals:	Yes ☒ No ☐ N/A				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW06A	S	5/5/20	1149	6-4	1	X	X	X
SW06B			1153	0-4		X	X	X
PH01			1253	6'		X	X	X
PH01A			1233	8'		X	X	X
PH02			1240	6'		X	X	X
PH02A			1250	8'		X	X	X
PH03			1310	6'		X	X	X
PH03A			1320	8'		X	X	X

ANALYSIS REQUEST									
Work Order Notes									
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
1 <i>[Signature]</i>	<i>[Signature]</i>	5/5/20 P02	2		
3			4		
5			6		



Certificate of Analysis Summary 662292

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVS JV BS #10H

Project Id: 012919271

Contact: Dan Moir

Project Location:

Date Received in Lab: Thu 05.21.2020 13:50

Report Date: 05.29.2020 10:02

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	662292-001	662292-002	662292-003	662292-004	662292-005	662292-006
	<i>Field Id:</i>	PH01 B	SW11	SW12	SW13	SW14	FS21
	<i>Depth:</i>	10- ft	0-4 ft	0-4 ft	0-4 ft	0-4 ft	4- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.19.2020 10:25	05.19.2020 12:15	05.19.2020 12:20	05.19.2020 12:25	05.19.2020 12:30	05.19.2020 12:50
BTEX by EPA 8021B	<i>Extracted:</i>	05.21.2020 17:28	05.21.2020 17:28	05.21.2020 17:46	05.21.2020 17:46	05.21.2020 17:46	05.21.2020 17:46
	<i>Analyzed:</i>	05.21.2020 23:52	05.22.2020 00:13	05.22.2020 03:16	05.22.2020 03:57	05.22.2020 04:18	05.22.2020 04:38
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.000404 0.000404	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.000404 0.000404	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.000404 0.000404	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.000808 0.000808	<0.00401 0.00401	<0.00399 0.00399	<0.00403 0.00403	<0.00402 0.00402	<0.00401 0.00401
o-Xylene		<0.000404 0.000404	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.000404 0.000404	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.000404 0.000404	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	05.21.2020 17:43	05.21.2020 17:43	05.21.2020 17:43	05.21.2020 17:43	05.21.2020 17:43	05.21.2020 17:43
	<i>Analyzed:</i>	05.22.2020 01:32	05.22.2020 01:37	05.22.2020 01:43	05.22.2020 01:49	05.22.2020 01:55	05.22.2020 02:01
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		147 10.0	82.6 10.1	3610 100	249 9.94	2740 99.6	81.4 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	05.21.2020 17:00	05.21.2020 17:00	05.21.2020 17:00	05.21.2020 17:00	05.21.2020 17:00	05.21.2020 17:00
	<i>Analyzed:</i>	05.21.2020 21:22	05.21.2020 22:44	05.21.2020 23:05	05.21.2020 23:25	05.21.2020 23:46	05.22.2020 00:06
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<50.3 50.3	<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2
Diesel Range Organics (DRO)		<50.1 50.1	<50.3 50.3	1020 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.3 50.3	154 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2
Total GRO-DRO		<50.1 50.1	<50.3 50.3	1020 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2
Total TPH		<50.1 50.1	<50.3 50.3	1170 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2

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Holly Taylor
Project Manager



Certificate of Analysis Summary 662292

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVS JV BS #10H

Project Id: 012919271

Contact: Dan Moir

Project Location:

Date Received in Lab: Thu 05.21.2020 13:50

Report Date: 05.29.2020 10:02

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	662292-007	662292-008	662292-009	662292-010	662292-011	662292-012
	Field Id:	FS22	FS23	FS24	FS25	FS26	FS27
	Depth:	4- ft	4- ft	4- ft	4- ft	4- ft	4- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	05.19.2020 12:55	05.19.2020 13:00	05.19.2020 13:05	05.19.2020 14:45	05.19.2020 14:55	05.19.2020 15:00
BTEX by EPA 8021B	Extracted:	05.21.2020 17:46	05.21.2020 17:46	05.21.2020 17:46	05.21.2020 17:46	05.21.2020 17:46	05.21.2020 17:46
	Analyzed:	05.22.2020 04:58	05.22.2020 05:19	05.22.2020 05:39	05.22.2020 06:00	05.22.2020 06:20	05.22.2020 07:21
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00395 0.00395	<0.00396 0.00396	<0.00403 0.00403	<0.00402 0.00402	<0.00402 0.00402	<0.00400 0.00400
o-Xylene		<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	Extracted:	05.21.2020 17:43	05.21.2020 17:43	05.21.2020 17:43	05.21.2020 17:43	05.21.2020 17:43	05.21.2020 17:43
	Analyzed:	05.22.2020 02:07	05.22.2020 02:13	05.22.2020 02:42	05.22.2020 02:48	05.22.2020 02:54	05.22.2020 03:00
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		195 9.94	129 X 9.90	78.6 9.98	74.8 9.98	791 9.96	968 10.0
TPH by SW8015 Mod	Extracted:	05.21.2020 17:00	05.21.2020 17:00	05.21.2020 17:00	05.21.2020 17:00	05.21.2020 17:00	05.21.2020 17:00
	Analyzed:	05.22.2020 00:27	05.22.2020 00:47	05.22.2020 01:07	05.22.2020 01:48	05.22.2020 02:08	05.22.2020 02:29
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.0 50.0	<50.1 50.1	<49.9 49.9	<50.2 50.2	<50.3 50.3
Diesel Range Organics (DRO)		<50.2 50.2	<50.0 50.0	<50.1 50.1	<49.9 49.9	<50.2 50.2	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.0 50.0	<50.1 50.1	<49.9 49.9	<50.2 50.2	<50.3 50.3
Total GRO-DRO		<50.2 50.2	<50.0 50.0	<50.1 50.1	<49.9 49.9	<50.2 50.2	<50.3 50.3
Total TPH		<50.2 50.2	<50.0 50.0	<50.1 50.1	<49.9 49.9	<50.2 50.2	<50.3 50.3

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Holly Taylor
Project Manager



Certificate of Analysis Summary 662292

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVS JV BS #10H

Project Id: 012919271

Contact: Dan Moir

Project Location:

Date Received in Lab: Thu 05.21.2020 13:50

Report Date: 05.29.2020 10:02

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	662292-013	662292-014	662292-015	662292-016	662292-017	662292-018
	<i>Field Id:</i>	FS28	FS29	FS30	FS31	FS32	FS33
	<i>Depth:</i>	4- ft	4- ft	4- ft	4- ft	4- ft	4- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.19.2020 15:11	05.20.2020 10:05	05.20.2020 10:10	05.20.2020 10:15	05.20.2020 10:20	05.20.2020 10:25
BTEX by EPA 8021B	<i>Extracted:</i>	05.21.2020 17:46	05.21.2020 17:46	05.21.2020 17:46	05.21.2020 17:46	05.21.2020 17:46	05.21.2020 17:46
	<i>Analyzed:</i>	05.22.2020 07:01	05.22.2020 08:02	05.22.2020 08:22	05.22.2020 08:43	05.22.2020 09:03	05.22.2020 10:05
	<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	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00404 0.00404	<0.00403 0.00403	<0.00401 0.00401	<0.00403 0.00403	<0.00402 0.00402	<0.00399 0.00399
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	05.21.2020 17:43	05.21.2020 17:43	05.21.2020 17:43	05.21.2020 17:43	05.22.2020 14:56	05.22.2020 14:56
	<i>Analyzed:</i>	05.22.2020 03:06	05.22.2020 03:11	05.22.2020 03:17	05.22.2020 03:23	05.26.2020 09:35	05.26.2020 09:53
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		485 10.0	545 10.1	1010 9.96	13000 200	8530 199	2750 99.8
TPH by SW8015 Mod	<i>Extracted:</i>	05.21.2020 17:00	05.21.2020 17:00	05.21.2020 17:00	05.21.2020 17:00	05.21.2020 17:00	05.21.2020 17:00
	<i>Analyzed:</i>	05.22.2020 02:49	05.22.2020 03:09	05.22.2020 03:30	05.22.2020 03:50	05.22.2020 04:10	05.22.2020 04:31
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.2 50.2	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<50.2 50.2	<49.9 49.9	154 50.2	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.2 50.2	<50.0 50.0
Total GRO-DRO		<50.0 50.0	<50.0 50.0	<50.2 50.2	<49.9 49.9	154 50.2	<50.0 50.0
Total TPH		<50.0 50.0	<50.0 50.0	<50.2 50.2	<49.9 49.9	154 50.2	<50.0 50.0

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Holly Taylor
Project Manager



Certificate of Analysis Summary 662292

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVS JV BS #10H

Project Id: 012919271

Contact: Dan Moir

Project Location:

Date Received in Lab: Thu 05.21.2020 13:50

Report Date: 05.29.2020 10:02

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	662292-019	662292-020	662292-021	662292-022	662292-023	
	<i>Field Id:</i>	FS34	FS35	FS36	FS37	FS38	
	<i>Depth:</i>	4- ft	4- ft	4- ft	4- ft	4- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	05.20.2020 10:30	05.20.2020 10:35	05.20.2020 11:45	05.20.2020 11:50	05.20.2020 12:00	
BTEX by EPA 8021B	<i>Extracted:</i>	05.21.2020 17:46	05.21.2020 17:46	05.21.2020 17:46	05.22.2020 14:00	05.22.2020 14:00	
	<i>Analyzed:</i>	05.22.2020 10:25	05.22.2020 10:45	05.22.2020 11:06	05.22.2020 16:58	05.22.2020 16:38	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	
Toluene		<0.00200 0.00200	<0.00199 0.00199	0.0310 0.00202	<0.00201 0.00201	<0.00200 0.00200	
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	
m,p-Xylenes		<0.00399 0.00399	<0.00398 0.00398	<0.00403 0.00403	<0.00402 0.00402	<0.00400 0.00400	
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	0.0310 0.00202	<0.00201 0.00201	<0.00200 0.00200	
Chloride by EPA 300	<i>Extracted:</i>	05.22.2020 14:56	05.22.2020 14:56	05.22.2020 14:56	05.22.2020 14:56	05.22.2020 14:56	
	<i>Analyzed:</i>	05.26.2020 09:59	05.26.2020 10:05	05.26.2020 10:11	05.26.2020 10:28	05.26.2020 10:34	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		3600 100	263 9.88	63.4 10.0	127 9.98	2020 50.1	
TPH by SW8015 Mod	<i>Extracted:</i>	05.21.2020 17:00	05.22.2020 16:00	05.22.2020 16:00	05.22.2020 16:00	05.22.2020 16:00	
	<i>Analyzed:</i>	05.22.2020 04:51	05.22.2020 18:28	05.22.2020 17:26	05.22.2020 18:49	05.22.2020 19:09	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.2 50.2	
Diesel Range Organics (DRO)		<50.1 50.1	<50.1 50.1	<49.9 49.9	<49.9 49.9	124 50.2	
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.2 50.2	
Total GRO-DRO		<50.1 50.1	<50.1 50.1	<49.9 49.9	<49.9 49.9	124 50.2	
Total TPH		<50.1 50.1	<50.1 50.1	<49.9 49.9	<49.9 49.9	124 50.2	

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Holly Taylor
Project Manager



Analytical Report 662292

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU CVS JV BS #10H

012919271

05.29.2020

Collected By: Client

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

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-6)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.29.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **662292**

PLU CVS JV BS #10H

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 XENCO Report Number(s) 662292. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 662292 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Holly Taylor'.

Holly Taylor
Project Manager

A Small Business and Minority Company

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Sample Cross Reference 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01 B	S	05.19.2020 10:25	10 ft	662292-001
SW11	S	05.19.2020 12:15	0 - 4 ft	662292-002
SW12	S	05.19.2020 12:20	0 - 4 ft	662292-003
SW13	S	05.19.2020 12:25	0 - 4 ft	662292-004
SW14	S	05.19.2020 12:30	0 - 4 ft	662292-005
FS21	S	05.19.2020 12:50	4 ft	662292-006
FS22	S	05.19.2020 12:55	4 ft	662292-007
FS23	S	05.19.2020 13:00	4 ft	662292-008
FS24	S	05.19.2020 13:05	4 ft	662292-009
FS25	S	05.19.2020 14:45	4 ft	662292-010
FS26	S	05.19.2020 14:55	4 ft	662292-011
FS27	S	05.19.2020 15:00	4 ft	662292-012
FS28	S	05.19.2020 15:11	4 ft	662292-013
FS29	S	05.20.2020 10:05	4 ft	662292-014
FS30	S	05.20.2020 10:10	4 ft	662292-015
FS31	S	05.20.2020 10:15	4 ft	662292-016
FS32	S	05.20.2020 10:20	4 ft	662292-017
FS33	S	05.20.2020 10:25	4 ft	662292-018
FS34	S	05.20.2020 10:30	4 ft	662292-019
FS35	S	05.20.2020 10:35	4 ft	662292-020
FS36	S	05.20.2020 11:45	4 ft	662292-021
FS37	S	05.20.2020 11:50	4 ft	662292-022
FS38	S	05.20.2020 12:00	4 ft	662292-023

**CASE NARRATIVE****Client Name: LT Environmental, Inc.****Project Name: PLU CVS JV BS #10H**

Project ID: 012919271
Work Order Number(s): 662292

Report Date: 05.29.2020
Date Received: 05.21.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3126735 Chloride by EPA 300

Lab Sample ID 662292-008 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 662292-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **PH01 B**
Lab Sample Id: 662292-001

Matrix: Soil
Date Collected: 05.19.2020 10:25

Date Received: 05.21.2020 13:50
Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126735

Date Prep: 05.21.2020 17:43

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	147	10.0	mg/kg	05.22.2020 01:32		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.21.2020 21:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.21.2020 21:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.21.2020 21:22	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.21.2020 21:22	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.21.2020 21:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	05.21.2020 21:22	
o-Terphenyl	84-15-1	111	%	70-135	05.21.2020 21:22	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **PH01 B**
Lab Sample Id: 662292-001

Matrix: Soil
Date Collected: 05.19.2020 10:25

Date Received: 05.21.2020 13:50
Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MRB

Seq Number: 3126744

Prep Method: SW5035A

% Moisture:

Date Prep: 05.21.2020 17:28

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000404	0.000404	mg/kg	05.21.2020 23:52	U	1
Toluene	108-88-3	<0.000404	0.000404	mg/kg	05.21.2020 23:52	U	1
Ethylbenzene	100-41-4	<0.000404	0.000404	mg/kg	05.21.2020 23:52	U	1
m,p-Xylenes	179601-23-1	<0.000808	0.000808	mg/kg	05.21.2020 23:52	U	1
o-Xylene	95-47-6	<0.000404	0.000404	mg/kg	05.21.2020 23:52	U	1
Total Xylenes	1330-20-7	<0.000404	0.000404	mg/kg	05.21.2020 23:52	U	1
Total BTEX		<0.000404	0.000404	mg/kg	05.21.2020 23:52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.21.2020 23:52		
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.21.2020 23:52		



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **SW11**
Lab Sample Id: 662292-002

Matrix: Soil
Date Collected: 05.19.2020 12:15

Date Received: 05.21.2020 13:50
Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126735

Date Prep: 05.21.2020 17:43

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	82.6	10.1	mg/kg	05.22.2020 01:37		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	05.21.2020 22:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	05.21.2020 22:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	05.21.2020 22:44	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	05.21.2020 22:44	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	05.21.2020 22:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-135	05.21.2020 22:44	
o-Terphenyl	84-15-1	70	%	70-135	05.21.2020 22:44	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **SW11**
Lab Sample Id: 662292-002

Matrix: Soil
Date Collected: 05.19.2020 12:15

Date Received: 05.21.2020 13:50
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MRB

Seq Number: 3126744

Prep Method: SW5035A

% Moisture:

Date Prep: 05.21.2020 17:28

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.22.2020 00:13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.22.2020 00:13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.22.2020 00:13	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.22.2020 00:13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.22.2020 00:13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.22.2020 00:13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.22.2020 00:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.22.2020 00:13	
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.22.2020 00:13	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **SW12**
Lab Sample Id: 662292-003

Matrix: Soil
Date Collected: 05.19.2020 12:20

Date Received: 05.21.2020 13:50
Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126735

Date Prep: 05.21.2020 17:43

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3610	100	mg/kg	05.22.2020 01:43		10

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.21.2020 23:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	1020	49.9	mg/kg	05.21.2020 23:05		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	154	49.9	mg/kg	05.21.2020 23:05		1
Total GRO-DRO	PHC628	1020	49.9	mg/kg	05.21.2020 23:05		1
Total TPH	PHC635	1170	49.9	mg/kg	05.21.2020 23:05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	05.21.2020 23:05	
o-Terphenyl	84-15-1	93	%	70-135	05.21.2020 23:05	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **SW12**
Lab Sample Id: 662292-003

Matrix: Soil
Date Collected: 05.19.2020 12:20

Date Received: 05.21.2020 13:50
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.22.2020 03:16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.22.2020 03:16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.22.2020 03:16	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.22.2020 03:16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.22.2020 03:16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.22.2020 03:16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.22.2020 03:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	05.22.2020 03:16	
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.22.2020 03:16	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **SW13**
Lab Sample Id: 662292-004

Matrix: Soil
Date Collected: 05.19.2020 12:25

Date Received: 05.21.2020 13:50
Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126735

Date Prep: 05.21.2020 17:43

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	249	9.94	mg/kg	05.22.2020 01:49		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.21.2020 23:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.21.2020 23:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.21.2020 23:25	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.21.2020 23:25	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.21.2020 23:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	05.21.2020 23:25	
o-Terphenyl	84-15-1	89	%	70-135	05.21.2020 23:25	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **SW13**
Lab Sample Id: 662292-004

Matrix: Soil
Date Collected: 05.19.2020 12:25

Date Received: 05.21.2020 13:50
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126748

Prep Method: SW5035A

% Moisture:

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.22.2020 03:57	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.22.2020 03:57	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.22.2020 03:57	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.22.2020 03:57	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.22.2020 03:57	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.22.2020 03:57	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.22.2020 03:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.22.2020 03:57	
4-Bromofluorobenzene	460-00-4	95	%	70-130	05.22.2020 03:57	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **SW14** Matrix: Soil Date Received: 05.21.2020 13:50
 Lab Sample Id: 662292-005 Date Collected: 05.19.2020 12:30 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.21.2020 17:43 Basis: Wet Weight
 Seq Number: 3126735

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2740	99.6	mg/kg	05.22.2020 01:55		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.21.2020 17:00 Basis: Wet Weight
 Seq Number: 3126745

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.21.2020 23:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.21.2020 23:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.21.2020 23:46	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.21.2020 23:46	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.21.2020 23:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-135	05.21.2020 23:46	
o-Terphenyl	84-15-1	72	%	70-135	05.21.2020 23:46	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **SW14**
Lab Sample Id: 662292-005

Matrix: Soil
Date Collected: 05.19.2020 12:30

Date Received: 05.21.2020 13:50
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.22.2020 04:18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.22.2020 04:18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.22.2020 04:18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.22.2020 04:18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.22.2020 04:18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.22.2020 04:18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.22.2020 04:18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	05.22.2020 04:18		
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.22.2020 04:18		



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS21
Lab Sample Id: 662292-006

Matrix: Soil
Date Collected: 05.19.2020 12:50

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126735

Date Prep: 05.21.2020 17:43

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	81.4	9.98	mg/kg	05.22.2020 02:01		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.22.2020 00:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.22.2020 00:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.22.2020 00:06	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.22.2020 00:06	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.22.2020 00:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	05.22.2020 00:06	
o-Terphenyl	84-15-1	90	%	70-135	05.22.2020 00:06	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS21**
Lab Sample Id: 662292-006

Matrix: Soil
Date Collected: 05.19.2020 12:50

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.22.2020 04:38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.22.2020 04:38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.22.2020 04:38	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.22.2020 04:38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.22.2020 04:38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.22.2020 04:38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.22.2020 04:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.22.2020 04:38	
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.22.2020 04:38	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS22
Lab Sample Id: 662292-007

Matrix: Soil
Date Collected: 05.19.2020 12:55

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126735

Date Prep: 05.21.2020 17:43

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	195	9.94	mg/kg	05.22.2020 02:07		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.22.2020 00:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.22.2020 00:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.22.2020 00:27	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.22.2020 00:27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.22.2020 00:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	05.22.2020 00:27	
o-Terphenyl	84-15-1	72	%	70-135	05.22.2020 00:27	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS22
Lab Sample Id: 662292-007

Matrix: Soil
Date Collected: 05.19.2020 12:55

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.22.2020 04:58	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.22.2020 04:58	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.22.2020 04:58	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	05.22.2020 04:58	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.22.2020 04:58	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.22.2020 04:58	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.22.2020 04:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.22.2020 04:58	
1,4-Difluorobenzene	540-36-3	109	%	70-130	05.22.2020 04:58	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS23
Lab Sample Id: 662292-008

Matrix: Soil
Date Collected: 05.19.2020 13:00

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126735

Date Prep: 05.21.2020 17:43

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	129	9.90	mg/kg	05.22.2020 02:13	X	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.22.2020 00:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.22.2020 00:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.22.2020 00:47	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.22.2020 00:47	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.22.2020 00:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	05.22.2020 00:47	
o-Terphenyl	84-15-1	72	%	70-135	05.22.2020 00:47	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS23**
Lab Sample Id: 662292-008

Matrix: Soil
Date Collected: 05.19.2020 13:00

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.22.2020 05:19	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.22.2020 05:19	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.22.2020 05:19	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.22.2020 05:19	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.22.2020 05:19	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.22.2020 05:19	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.22.2020 05:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	05.22.2020 05:19	
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.22.2020 05:19	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS24**
Lab Sample Id: 662292-009

Matrix: Soil
Date Collected: 05.19.2020 13:05

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126735

Date Prep: 05.21.2020 17:43

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	78.6	9.98	mg/kg	05.22.2020 02:42		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.22.2020 01:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.22.2020 01:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.22.2020 01:07	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.22.2020 01:07	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.22.2020 01:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	05.22.2020 01:07	
o-Terphenyl	84-15-1	77	%	70-135	05.22.2020 01:07	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS24**
Lab Sample Id: 662292-009

Matrix: Soil
Date Collected: 05.19.2020 13:05

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.22.2020 05:39	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.22.2020 05:39	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.22.2020 05:39	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.22.2020 05:39	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.22.2020 05:39	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.22.2020 05:39	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.22.2020 05:39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	05.22.2020 05:39		
1,4-Difluorobenzene	540-36-3	108	%	70-130	05.22.2020 05:39		



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS25
Lab Sample Id: 662292-010

Matrix: Soil
Date Collected: 05.19.2020 14:45

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126735

Date Prep: 05.21.2020 17:43

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	74.8	9.98	mg/kg	05.22.2020 02:48		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.22.2020 01:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.22.2020 01:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.22.2020 01:48	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.22.2020 01:48	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.22.2020 01:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-135	05.22.2020 01:48	
o-Terphenyl	84-15-1	74	%	70-135	05.22.2020 01:48	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS25**
Lab Sample Id: 662292-010

Matrix: **Soil**
Date Collected: 05.19.2020 14:45

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: 05.21.2020 17:46

Basis: **Wet Weight**

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.22.2020 06:00	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.22.2020 06:00	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.22.2020 06:00	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.22.2020 06:00	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.22.2020 06:00	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.22.2020 06:00	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.22.2020 06:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.22.2020 06:00	
4-Bromofluorobenzene	460-00-4	91	%	70-130	05.22.2020 06:00	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS26
Lab Sample Id: 662292-011

Matrix: Soil
Date Collected: 05.19.2020 14:55

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126735

Date Prep: 05.21.2020 17:43

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	791	9.96	mg/kg	05.22.2020 02:54		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.22.2020 02:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.22.2020 02:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.22.2020 02:08	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.22.2020 02:08	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.22.2020 02:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-135	05.22.2020 02:08	
o-Terphenyl	84-15-1	75	%	70-135	05.22.2020 02:08	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS26**
Lab Sample Id: 662292-011

Matrix: Soil
Date Collected: 05.19.2020 14:55

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.22.2020 06:20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.22.2020 06:20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.22.2020 06:20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.22.2020 06:20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.22.2020 06:20	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.22.2020 06:20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.22.2020 06:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.22.2020 06:20	
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.22.2020 06:20	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS27
Lab Sample Id: 662292-012

Matrix: Soil
Date Collected: 05.19.2020 15:00

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126735

Date Prep: 05.21.2020 17:43

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	968	10.0	mg/kg	05.22.2020 03:00		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	05.22.2020 02:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	05.22.2020 02:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	05.22.2020 02:29	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	05.22.2020 02:29	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	05.22.2020 02:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	05.22.2020 02:29	
o-Terphenyl	84-15-1	70	%	70-135	05.22.2020 02:29	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS27**
Lab Sample Id: 662292-012

Matrix: **Soil**
Date Collected: 05.19.2020 15:00

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: 05.21.2020 17:46

Basis: **Wet Weight**

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.22.2020 07:21	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.22.2020 07:21	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.22.2020 07:21	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.22.2020 07:21	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.22.2020 07:21	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.22.2020 07:21	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.22.2020 07:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	05.22.2020 07:21	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.22.2020 07:21	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS28**
Lab Sample Id: 662292-013

Matrix: Soil
Date Collected: 05.19.2020 15:11

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126735

Date Prep: 05.21.2020 17:43

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	485	10.0	mg/kg	05.22.2020 03:06		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.22.2020 02:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.22.2020 02:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.22.2020 02:49	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.22.2020 02:49	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.22.2020 02:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	05.22.2020 02:49	
o-Terphenyl	84-15-1	84	%	70-135	05.22.2020 02:49	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS28**
Lab Sample Id: 662292-013

Matrix: Soil
Date Collected: 05.19.2020 15:11

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.22.2020 07:01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.22.2020 07:01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.22.2020 07:01	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.22.2020 07:01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.22.2020 07:01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.22.2020 07:01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.22.2020 07:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.22.2020 07:01		
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.22.2020 07:01		



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS29**
Lab Sample Id: 662292-014

Matrix: Soil
Date Collected: 05.20.2020 10:05

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126735

Date Prep: 05.21.2020 17:43

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	545	10.1	mg/kg	05.22.2020 03:11		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.22.2020 03:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.22.2020 03:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.22.2020 03:09	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.22.2020 03:09	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.22.2020 03:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	05.22.2020 03:09	
o-Terphenyl	84-15-1	73	%	70-135	05.22.2020 03:09	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS29**
Lab Sample Id: 662292-014

Matrix: Soil
Date Collected: 05.20.2020 10:05

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.22.2020 08:02	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.22.2020 08:02	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.22.2020 08:02	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.22.2020 08:02	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.22.2020 08:02	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.22.2020 08:02	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.22.2020 08:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.22.2020 08:02	
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.22.2020 08:02	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS30** Matrix: Soil Date Received: 05.21.2020 13:50
 Lab Sample Id: 662292-015 Date Collected: 05.20.2020 10:10 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.21.2020 17:43 Basis: Wet Weight
 Seq Number: 3126735

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1010	9.96	mg/kg	05.22.2020 03:17		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.21.2020 17:00 Basis: Wet Weight
 Seq Number: 3126745

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.22.2020 03:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.22.2020 03:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.22.2020 03:30	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.22.2020 03:30	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.22.2020 03:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-135	05.22.2020 03:30	
o-Terphenyl	84-15-1	73	%	70-135	05.22.2020 03:30	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS30**
Lab Sample Id: 662292-015

Matrix: Soil
Date Collected: 05.20.2020 10:10

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.22.2020 08:22	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.22.2020 08:22	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.22.2020 08:22	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.22.2020 08:22	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.22.2020 08:22	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.22.2020 08:22	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.22.2020 08:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	05.22.2020 08:22	
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.22.2020 08:22	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS31
Lab Sample Id: 662292-016

Matrix: Soil
Date Collected: 05.20.2020 10:15

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126735

Date Prep: 05.21.2020 17:43

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13000	200	mg/kg	05.22.2020 03:23		20

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.22.2020 03:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.22.2020 03:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.22.2020 03:50	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.22.2020 03:50	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.22.2020 03:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	05.22.2020 03:50	
o-Terphenyl	84-15-1	82	%	70-135	05.22.2020 03:50	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS31**
Lab Sample Id: 662292-016

Matrix: Soil
Date Collected: 05.20.2020 10:15

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.22.2020 08:43	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.22.2020 08:43	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.22.2020 08:43	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.22.2020 08:43	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.22.2020 08:43	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.22.2020 08:43	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.22.2020 08:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.22.2020 08:43	
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.22.2020 08:43	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS32
Lab Sample Id: 662292-017

Matrix: Soil
Date Collected: 05.20.2020 10:20

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126873

Date Prep: 05.22.2020 14:56

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8530	199	mg/kg	05.26.2020 09:35		20

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.22.2020 04:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	154	50.2	mg/kg	05.22.2020 04:10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.22.2020 04:10	U	1
Total GRO-DRO	PHC628	154	50.2	mg/kg	05.22.2020 04:10		1
Total TPH	PHC635	154	50.2	mg/kg	05.22.2020 04:10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-135	05.22.2020 04:10	
o-Terphenyl	84-15-1	75	%	70-135	05.22.2020 04:10	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS32**
Lab Sample Id: 662292-017

Matrix: **Soil**
Date Collected: 05.20.2020 10:20

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: 05.21.2020 17:46

Basis: **Wet Weight**

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.22.2020 09:03	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.22.2020 09:03	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.22.2020 09:03	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.22.2020 09:03	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.22.2020 09:03	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.22.2020 09:03	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.22.2020 09:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.22.2020 09:03		
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.22.2020 09:03		



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS33
Lab Sample Id: 662292-018

Matrix: Soil
Date Collected: 05.20.2020 10:25

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126873

Date Prep: 05.22.2020 14:56

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2750	99.8	mg/kg	05.26.2020 09:53		10

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126745

Date Prep: 05.21.2020 17:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.22.2020 04:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.22.2020 04:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.22.2020 04:31	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.22.2020 04:31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.22.2020 04:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	05.22.2020 04:31	
o-Terphenyl	84-15-1	74	%	70-135	05.22.2020 04:31	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS33**
Lab Sample Id: 662292-018

Matrix: Soil
Date Collected: 05.20.2020 10:25

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.22.2020 10:05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.22.2020 10:05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.22.2020 10:05	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.22.2020 10:05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.22.2020 10:05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.22.2020 10:05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.22.2020 10:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.22.2020 10:05	
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.22.2020 10:05	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS34	Matrix: Soil	Date Received: 05.21.2020 13:50
Lab Sample Id: 662292-019	Date Collected: 05.20.2020 10:30	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MAB		% Moisture:
Analyst: MAB	Date Prep: 05.22.2020 14:56	Basis: Wet Weight
Seq Number: 3126873		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3600	100	mg/kg	05.26.2020 09:59		10

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DTH		% Moisture:
Analyst: DTH	Date Prep: 05.21.2020 17:00	Basis: Wet Weight
Seq Number: 3126745		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.22.2020 04:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.22.2020 04:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.22.2020 04:51	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.22.2020 04:51	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.22.2020 04:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-135	05.22.2020 04:51	
o-Terphenyl	84-15-1	72	%	70-135	05.22.2020 04:51	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS34**
Lab Sample Id: 662292-019

Matrix: Soil
Date Collected: 05.20.2020 10:30

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.22.2020 10:25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.22.2020 10:25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.22.2020 10:25	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.22.2020 10:25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.22.2020 10:25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.22.2020 10:25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.22.2020 10:25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.22.2020 10:25		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.22.2020 10:25		



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS35 Matrix: Soil Date Received: 05.21.2020 13:50
 Lab Sample Id: 662292-020 Date Collected: 05.20.2020 10:35 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.22.2020 14:56 Basis: Wet Weight
 Seq Number: 3126873

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	263	9.88	mg/kg	05.26.2020 10:05		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.22.2020 16:00 Basis: Wet Weight
 Seq Number: 3126904

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.22.2020 18:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.22.2020 18:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.22.2020 18:28	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.22.2020 18:28	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.22.2020 18:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	05.22.2020 18:28	
o-Terphenyl	84-15-1	95	%	70-135	05.22.2020 18:28	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS35
Lab Sample Id: 662292-020

Matrix: Soil
Date Collected: 05.20.2020 10:35

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.22.2020 10:45	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.22.2020 10:45	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.22.2020 10:45	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.22.2020 10:45	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.22.2020 10:45	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.22.2020 10:45	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.22.2020 10:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.22.2020 10:45	
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.22.2020 10:45	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS36
Lab Sample Id: 662292-021

Matrix: Soil
Date Collected: 05.20.2020 11:45

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126873

Date Prep: 05.22.2020 14:56

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	63.4	10.0	mg/kg	05.26.2020 10:11		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126904

Date Prep: 05.22.2020 16:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.22.2020 17:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.22.2020 17:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.22.2020 17:26	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.22.2020 17:26	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.22.2020 17:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	05.22.2020 17:26	
o-Terphenyl	84-15-1	92	%	70-135	05.22.2020 17:26	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS36
Lab Sample Id: 662292-021

Matrix: Soil
Date Collected: 05.20.2020 11:45

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.21.2020 17:46

Basis: Wet Weight

Seq Number: 3126748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.22.2020 11:06	U	1
Toluene	108-88-3	0.0310	0.00202	mg/kg	05.22.2020 11:06		1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.22.2020 11:06	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.22.2020 11:06	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.22.2020 11:06	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.22.2020 11:06	U	1
Total BTEX		0.0310	0.00202	mg/kg	05.22.2020 11:06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.22.2020 11:06	
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.22.2020 11:06	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS37 Matrix: Soil Date Received: 05.21.2020 13:50
 Lab Sample Id: 662292-022 Date Collected: 05.20.2020 11:50 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.22.2020 14:56 Basis: Wet Weight
 Seq Number: 3126873

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	127	9.98	mg/kg	05.26.2020 10:28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.22.2020 16:00 Basis: Wet Weight
 Seq Number: 3126904

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.22.2020 18:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.22.2020 18:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.22.2020 18:49	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.22.2020 18:49	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.22.2020 18:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.22.2020 18:49	
o-Terphenyl	84-15-1	95	%	70-135	05.22.2020 18:49	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: FS37
Lab Sample Id: 662292-022

Matrix: Soil
Date Collected: 05.20.2020 11:50

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.22.2020 14:00

Basis: Wet Weight

Seq Number: 3126870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.22.2020 16:58	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.22.2020 16:58	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.22.2020 16:58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.22.2020 16:58	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.22.2020 16:58	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.22.2020 16:58	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.22.2020 16:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.22.2020 16:58		
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.22.2020 16:58		



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS38**
Lab Sample Id: 662292-023

Matrix: Soil
Date Collected: 05.20.2020 12:00

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126873

Date Prep: 05.22.2020 14:56

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2020	50.1	mg/kg	05.26.2020 10:34		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126904

Date Prep: 05.22.2020 16:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.22.2020 19:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	124	50.2	mg/kg	05.22.2020 19:09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.22.2020 19:09	U	1
Total GRO-DRO	PHC628	124	50.2	mg/kg	05.22.2020 19:09		1
Total TPH	PHC635	124	50.2	mg/kg	05.22.2020 19:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.22.2020 19:09	
o-Terphenyl	84-15-1	97	%	70-135	05.22.2020 19:09	



Certificate of Analytical Results 662292

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #10H

Sample Id: **FS38**
Lab Sample Id: 662292-023

Matrix: Soil
Date Collected: 05.20.2020 12:00

Date Received: 05.21.2020 13:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.22.2020 14:00

Basis: Wet Weight

Seq Number: 3126870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.22.2020 16:38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.22.2020 16:38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.22.2020 16:38	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.22.2020 16:38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.22.2020 16:38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.22.2020 16:38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.22.2020 16:38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	05.22.2020 16:38		
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.22.2020 16:38		



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 CVS JV BS #10H

Analytical Method: Chloride by EPA 300

Seq Number: 3126735

MB Sample Id: 7703898-1-BLK

Matrix: Solid

LCS Sample Id: 7703898-1-BKS

Prep Method: E300P

Date Prep: 05.21.2020

LCSD Sample Id: 7703898-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<50.0	1250	1240	99	1240	99	90-110	0	20	mg/kg	05.22.2020 00:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3126873

MB Sample Id: 7703948-1-BLK

Matrix: Solid

LCS Sample Id: 7703948-1-BKS

Prep Method: E300P

Date Prep: 05.22.2020

LCSD Sample Id: 7703948-1-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	250	100	90-110	0	20	mg/kg	05.26.2020 09:14	

Analytical Method: Chloride by EPA 300

Seq Number: 3126735

Parent Sample Id: 662289-001

Matrix: Soil

MS Sample Id: 662289-001 S

Prep Method: E300P

Date Prep: 05.21.2020

MSD Sample Id: 662289-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	385	198	603	110	571	93	90-110	5	20	mg/kg	05.22.2020 00:50	

Analytical Method: Chloride by EPA 300

Seq Number: 3126735

Parent Sample Id: 662292-008

Matrix: Soil

MS Sample Id: 662292-008 S

Prep Method: E300P

Date Prep: 05.21.2020

MSD Sample Id: 662292-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	129	201	308	89	307	89	90-110	0	20	mg/kg	05.22.2020 02:19	X

Analytical Method: Chloride by EPA 300

Seq Number: 3126873

Parent Sample Id: 662292-017

Matrix: Soil

MS Sample Id: 662292-017 S

Prep Method: E300P

Date Prep: 05.22.2020

MSD Sample Id: 662292-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8530	202	8730	99	8730	100	90-110	0	20	mg/kg	05.26.2020 09:41	

Analytical Method: Chloride by EPA 300

Seq Number: 3126873

Parent Sample Id: 662329-003

Matrix: Soil

MS Sample Id: 662329-003 S

Prep Method: E300P

Date Prep: 05.22.2020

MSD Sample Id: 662329-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	734	200	935	101	944	105	90-110	1	20	mg/kg	05.26.2020 11:04	

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 CVS JV BS #10H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126745

MB Sample Id: 7703915-1-BLK

Matrix: Solid

LCS Sample Id: 7703915-1-BKS

Prep Method: SW8015P

Date Prep: 05.21.2020

LCSD Sample Id: 7703915-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1050	105	1060	106	70-135	1	35	mg/kg	05.21.2020 20:41	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	1140	114	70-135	1	35	mg/kg	05.21.2020 20:41	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag		LCSD %Rec	LCSD Flag		Limits	Units	Analysis Date	
1-Chlorooctane	115		127			127			70-135	%	05.21.2020 20:41	
o-Terphenyl	105		113			113			70-135	%	05.21.2020 20:41	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126904

MB Sample Id: 7704016-1-BLK

Matrix: Solid

LCS Sample Id: 7704016-1-BKS

Prep Method: SW8015P

Date Prep: 05.22.2020

LCSD Sample Id: 7704016-1-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	1060	106	70-135	3	35	mg/kg	05.22.2020 16:45	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	951	95	70-135	10	35	mg/kg	05.22.2020 16:45	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag		LCSD %Rec	LCSD Flag		Limits	Units	Analysis Date	
1-Chlorooctane	132		122			118			70-135	%	05.22.2020 16:45	
o-Terphenyl	132		108			114			70-135	%	05.22.2020 16:45	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126745

Matrix: Solid

MB Sample Id: 7703915-1-BLK

Prep Method: SW8015P

Date Prep: 05.21.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.21.2020 20:20	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126904

Matrix: Solid

MB Sample Id: 7704016-1-BLK

Prep Method: SW8015P

Date Prep: 05.22.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.22.2020 16:25	

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 CVS JV BS #10H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126745

Parent Sample Id: 662292-001

Matrix: Soil

MS Sample Id: 662292-001 S

Prep Method: SW8015P

Date Prep: 05.21.2020

MSD Sample Id: 662292-001 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)	<50.1	1000	911	91	903	91	70-135	1	35	mg/kg	05.21.2020 21:43	
Diesel Range Organics (DRO)	<50.1	1000	962	96	945	95	70-135	2	35	mg/kg	05.21.2020 21:43	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		130		70-135	%	05.21.2020 21:43
o-Terphenyl	118		116		70-135	%	05.21.2020 21:43

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126904

Parent Sample Id: 662292-021

Matrix: Soil

MS Sample Id: 662292-021 S

Prep Method: SW8015P

Date Prep: 05.22.2020

MSD Sample Id: 662292-021 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	1050	105	1040	104	70-135	1	35	mg/kg	05.22.2020 17:47	
Diesel Range Organics (DRO)	<50.2	1000	1120	112	1110	111	70-135	1	35	mg/kg	05.22.2020 17:47	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		113		70-135	%	05.22.2020 17:47
o-Terphenyl	104		105		70-135	%	05.22.2020 17:47

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126744

MB Sample Id: 7703835-1-BLK

Matrix: Solid

LCS Sample Id: 7703835-1-BKS

Prep Method: SW5035A

Date Prep: 05.21.2020

LCSD Sample Id: 7703835-1-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	0.114	114	0.114	114	70-130	0	35	mg/kg	05.21.2020 14:58	
Toluene	<0.00200	0.100	0.109	109	0.110	110	70-130	1	35	mg/kg	05.21.2020 14:58	
Ethylbenzene	<0.00200	0.100	0.104	104	0.103	103	71-129	1	35	mg/kg	05.21.2020 14:58	
m,p-Xylenes	<0.00400	0.200	0.214	107	0.214	107	70-135	0	35	mg/kg	05.21.2020 14:58	
o-Xylene	<0.00200	0.100	0.107	107	0.107	107	71-133	0	35	mg/kg	05.21.2020 14:58	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		105		105		70-130	%	05.21.2020 14:58
4-Bromofluorobenzene	95		91		89		70-130	%	05.21.2020 14:58

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 CVS JV BS #10H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126748

Matrix: Solid

Prep Method: SW5035A

Date Prep: 05.21.2020

MB Sample Id: 7703899-1-BLK

LCS Sample Id: 7703899-1-BKS

LCSD Sample Id: 7703899-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0100	0.500	0.526	105	0.530	106	70-130	1	35	mg/kg	05.22.2020 01:34	
Toluene	<0.0100	0.500	0.500	100	0.505	101	70-130	1	35	mg/kg	05.22.2020 01:34	
Ethylbenzene	<0.0100	0.500	0.466	93	0.468	94	71-129	0	35	mg/kg	05.22.2020 01:34	
m,p-Xylenes	<0.0200	1.00	0.951	95	0.962	96	70-135	1	35	mg/kg	05.22.2020 01:34	
o-Xylene	<0.0100	0.500	0.483	97	0.489	98	71-133	1	35	mg/kg	05.22.2020 01:34	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	112		106		107		70-130			%	05.22.2020 01:34	
4-Bromofluorobenzene	98		95		89		70-130			%	05.22.2020 01:34	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126870

Matrix: Solid

Prep Method: SW5035A

Date Prep: 05.22.2020

MB Sample Id: 7703946-1-BLK

LCS Sample Id: 7703946-1-BKS

LCSD Sample Id: 7703946-1-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	0.108	108	0.105	105	70-130	3	35	mg/kg	05.22.2020 14:56	
Toluene	<0.00200	0.100	0.103	103	0.101	101	70-130	2	35	mg/kg	05.22.2020 14:56	
Ethylbenzene	<0.00200	0.100	0.0971	97	0.0950	95	71-129	2	35	mg/kg	05.22.2020 14:56	
m,p-Xylenes	<0.00400	0.200	0.200	100	0.196	98	70-135	2	35	mg/kg	05.22.2020 14:56	
o-Xylene	<0.00200	0.100	0.101	101	0.0986	99	71-133	2	35	mg/kg	05.22.2020 14:56	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	111		105		107		70-130			%	05.22.2020 14:56	
4-Bromofluorobenzene	96		90		93		70-130			%	05.22.2020 14:56	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126744

Matrix: Soil

Prep Method: SW5035A

Date Prep: 05.21.2020

Parent Sample Id: 662199-021

MS Sample Id: 662199-021 S

MSD Sample Id: 662199-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.113	113	0.117	116	70-130	3	35	mg/kg	05.21.2020 20:08	
Toluene	<0.00200	0.100	0.109	109	0.127	126	70-130	15	35	mg/kg	05.21.2020 20:08	
Ethylbenzene	<0.00200	0.100	0.101	101	0.0987	98	71-129	2	35	mg/kg	05.21.2020 20:08	
m,p-Xylenes	<0.00401	0.200	0.209	105	0.204	101	70-135	2	35	mg/kg	05.21.2020 20:08	
o-Xylene	<0.00200	0.100	0.102	102	0.100	99	71-133	2	35	mg/kg	05.21.2020 20:08	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene			107		108		70-130			%	05.21.2020 20:08	
4-Bromofluorobenzene			94		94		70-130			%	05.21.2020 20:08	

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 CVS JV BS #10H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126748

Parent Sample Id: 662292-003

Matrix: Soil

MS Sample Id: 662292-003 S

Prep Method: SW5035A

Date Prep: 05.21.2020

MSD Sample Id: 662292-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.107	107	0.116	116	70-130	8	35	mg/kg	05.22.2020 09:24	
Toluene	<0.00199	0.0996	0.102	102	0.110	110	70-130	8	35	mg/kg	05.22.2020 09:24	
Ethylbenzene	<0.00199	0.0996	0.0942	95	0.103	103	71-129	9	35	mg/kg	05.22.2020 09:24	
m,p-Xylenes	<0.00398	0.199	0.195	98	0.211	106	70-135	8	35	mg/kg	05.22.2020 09:24	
o-Xylene	<0.00199	0.0996	0.0996	100	0.107	107	71-133	7	35	mg/kg	05.22.2020 09:24	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		106		70-130	%	05.22.2020 09:24
4-Bromofluorobenzene	94		91		70-130	%	05.22.2020 09:24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126870

Parent Sample Id: 662292-023

Matrix: Soil

MS Sample Id: 662292-023 S

Prep Method: SW5035A

Date Prep: 05.22.2020

MSD Sample Id: 662292-023 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.104	104	0.104	104	70-130	0	35	mg/kg	05.22.2020 15:37	
Toluene	<0.00200	0.0998	0.111	111	0.104	104	70-130	7	35	mg/kg	05.22.2020 15:37	
Ethylbenzene	<0.00200	0.0998	0.0953	95	0.0949	95	71-129	0	35	mg/kg	05.22.2020 15:37	
m,p-Xylenes	<0.00399	0.200	0.196	98	0.194	97	70-135	1	35	mg/kg	05.22.2020 15:37	
o-Xylene	<0.00200	0.0998	0.0978	98	0.0963	97	71-133	2	35	mg/kg	05.22.2020 15:37	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		108		70-130	%	05.22.2020 15:37
4-Bromofluorobenzene	93		95		70-130	%	05.22.2020 15:37

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: 662292

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0330 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) 233-3827
Hobbs, NM (575-382-7550)

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Page 1 of 3

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:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	emoreno@ltenv.com, dmoir@ltenv.com

Work Order Comments				
Program: UST/ST	☐ PRP	☐ brownfields	☐ RC	☐ superfund
State of Project:				
Reporting Level II	☐ Level III	☐ ST/UST	☐ RRP	☐ Level IV
Deliverables: EDD	☐	ADAPT	☐	Other:

Project Name:	PLU CVS JV BS #10H	Turn Around
Project Number:	012919271	Routine ☒
P.O. Number:		Rush:
Sampler's Name:	Ezequiel Moreno	Due Date:
ANALYSIS REQUEST		Work Order Notes

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	1.6	Thermometer ID					
Received Intact:	Yes	No	TNN007				
Cooler Custody Seals:	Yes	No	Correction Factor:		-0.2		
Sample Custody Seals:	Yes	No	Total Containers:		23		

Number of Containers

(EPA 8015)

(EPA 0=8021)

(EPA 300.0)

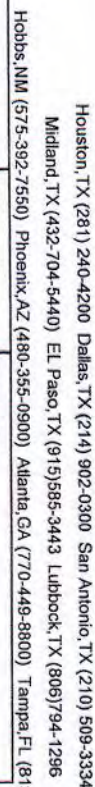
TAT starts the day received by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (E)	BTEX (E)	Chloride	Sample Comments
PH01B	S	5/19/20	1025	10"	1	X	X	X	
SW11			1215	0-4'					
SW12			1220						
SW13			1225						
SW14			1230						
FS21			1250	4'					
FS22			1255						
FS23			1300						
FS24			1305						
FS25			1445						

<i>Circle Method(s) and Metal(s) to be analyzed</i>	200.7 / 6010	200.8 / 6020:
8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn		
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		
		16331 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenoco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenoco 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 Xenoco. A minimum charge of \$75.00 will be applied to each project, and a charge of \$5 for each sample submitted to Xenoco, 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 <i>Ernest M. [Signature]</i>	<i>[Signature]</i>	5/21/20 13:50	2		
3			4		
5			6		



Chain of Custody

Work Order No:

Case 2292

Work Order Comments	
Program: UST/ST	☐ PRP ☐ brownfields ☐ RC ☐ superfund ☐
State of Project:	
Reporting Level II	☐ Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD	☐ ADaPT ☐ Other:

[illegible]

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

Number of Containers

PA 8015)

EPA 0=8021)

le (EPA 300.0)

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (E)	BTEX (C)	Chloride	Sample Comments
FS26	S	5/19/20	1455	4'	1	X	X	X	
FS27			1500						
FS28			1511						
FS29		5/20/20	1005						
FS30			1010						
FS31			1015						
FS32			1020						
FS33			1025						
FS34			1030						
FS35			1035						

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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 		5/21/20 13:50	2		
3			4		
5			6		

Printed Date: 05/21/20 13:50



Chain of Custody

Work Order No.:

222222

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-504-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 281-2811
Hobbs, NM (575-392-7550)

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Page 3 of 3

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:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	emoreno@ltenv.com, dmoir@ltenv.com

Work Order Comments	
Program: UST/ST	☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:	
Reporting Level II	☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD	☐ ADAPT ☐ Other:

Project Name:	H20 CVS JV BS #010H										Turn Around
Project Number:	012919271										Routine ☒
P.O. Number:											Rush:
Sampler's Name:	Ezequiel Moreno										Due Date:
ANALYSIS REQUEST											Work Order Notes

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

Number of Containers

PA 8015)

PA 0=8021)

(EPA 300.0)

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

[illegible]

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 SiO ₂ 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 · H ₂

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 		5/21/20 13:50	2		
3			4		
5			6		

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 05.21.2020 01.50.00 PM

Work Order #: 662292

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:



Elizabeth McClellan

Date: 05.21.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.22.2020

Certificate of Analysis Summary 668098



LT Environmental, Inc., Arvada, CO

Project Name: Poker Lake Unit CVS BS #010H

Project Id: 012919271

Date Received in Lab: Thu 07.23.2020 16:50

Contact: Dan Moir

Report Date: 07.27.2020 12:46

Project Location:

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	668098-001					
	Field Id:	FS39					
	Depth:	4- ft					
	Matrix:	SOIL					
	Sampled:	07.23.2020 15:05					
BTEX by EPA 8021B	Extracted:	07.24.2020 09:35					
	Analyzed:	07.24.2020 16:40					
	Units/RL:	mg/kg RL					
Benzene		<0.00198 0.00198					
Toluene		<0.00198 0.00198					
Ethylbenzene		<0.00198 0.00198					
m,p-Xylenes		<0.00396 0.00396					
o-Xylene		<0.00198 0.00198					
Total Xylenes		<0.00198 0.00198					
Total BTEX		<0.00198 0.00198					
Chloride by EPA 300	Extracted:	07.24.2020 12:28					
	Analyzed:	07.24.2020 13:52					
	Units/RL:	mg/kg RL					
Chloride		310 9.96					
TPH by SW8015 Mod	Extracted:	07.24.2020 14:00					
	Analyzed:	07.24.2020 14:09					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2					
Diesel Range Organics (DRO)		<50.2 50.2					
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2					
Total GRO-DRO		<50.2 50.2					
Total TPH		<50.2 50.2					

BRL - Below Reporting Limit

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



Analytical Report 668098

for

LT Environmental, Inc.

Project Manager: Dan Moir

Poker Lake Unit CVS BS #010H

012919271

07.27.2020

Collected By: Client

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

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.27.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **668098**

Poker Lake Unit CVS BS #010H

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) 668098. 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. 668098 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 668098

LT Environmental, Inc., Arvada, CO

Poker Lake Unit CVS BS #010H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS39	S	07.23.2020 15:05	4 ft	668098-001



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *Poker Lake Unit CVS BS #010H*

Project ID: 012919271
Work Order Number(s): 668098

Report Date: 07.27.2020
Date Received: 07.23.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 668098

LT Environmental, Inc., Arvada, CO

Poker Lake Unit CVS BS #010H

Sample Id: **FS39** Matrix: Soil Date Received: 07.23.2020 16:50
 Lab Sample Id: 668098-001 Date Collected: 07.23.2020 15:05 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.24.2020 12:28 Basis: Wet Weight
 Seq Number: 3132658

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	310	9.96	mg/kg	07.24.2020 13:52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.24.2020 14:00 Basis: Wet Weight
 Seq Number: 3132634

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	07.24.2020 14:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	07.24.2020 14:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	07.24.2020 14:09	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	07.24.2020 14:09	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	07.24.2020 14:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	07.24.2020 14:09	
o-Terphenyl	84-15-1	116	%	70-135	07.24.2020 14:09	



Certificate of Analytical Results 668098

LT Environmental, Inc., Arvada, CO

Poker Lake Unit CVS BS #010H

Sample Id: **FS39**
Lab Sample Id: 668098-001

Matrix: Soil
Date Collected: 07.23.2020 15:05

Date Received: 07.23.2020 16:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 07.24.2020 09:35

Basis: Wet Weight

Seq Number: 3132662

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.24.2020 16:40	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.24.2020 16:40	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.24.2020 16:40	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	07.24.2020 16:40	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.24.2020 16:40	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.24.2020 16:40	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.24.2020 16:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.24.2020 16:40		
4-Bromofluorobenzene	460-00-4	102	%	70-130	07.24.2020 16:40		

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.
Poker Lake Unit CVS BS #010H

Analytical Method: Chloride by EPA 300

Seq Number: 3132658

MB Sample Id: 7708057-1-BLK

Matrix: Solid

LCS Sample Id: 7708057-1-BKS

Prep Method: E300P

Date Prep: 07.24.2020

LCSD Sample Id: 7708057-1-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	265	106	274	110	90-110	3	20	mg/kg	07.24.2020 13:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3132658

Parent Sample Id: 668098-001

Matrix: Soil

MS Sample Id: 668098-001 S

Prep Method: E300P

Date Prep: 07.24.2020

MSD Sample Id: 668098-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	310	200	518	104	517	104	90-110	0	20	mg/kg	07.24.2020 13:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3132658

Parent Sample Id: 668154-005

Matrix: Soil

MS Sample Id: 668154-005 S

Prep Method: E300P

Date Prep: 07.24.2020

MSD Sample Id: 668154-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	136	199	339	102	342	104	90-110	1	20	mg/kg	07.24.2020 15:27	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3132634

MB Sample Id: 7708098-1-BLK

Matrix: Solid

LCS Sample Id: 7708098-1-BKS

Prep Method: SW8015P

Date Prep: 07.24.2020

LCSD Sample Id: 7708098-1-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	968	97	1010	101	70-135	4	35	mg/kg	07.24.2020 11:29	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1160	116	70-135	4	35	mg/kg	07.24.2020 11:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		127		129		70-135	%	07.24.2020 11:29
o-Terphenyl	120		117		125		70-135	%	07.24.2020 11:29

Analytical Method: TPH by SW8015 Mod

Seq Number: 3132634

Matrix: Solid

MB Sample Id: 7708098-1-BLK

Prep Method: SW8015P

Date Prep: 07.24.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.24.2020 11:09	

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.
 Poker Lake Unit CVS BS #010H
Analytical Method: TPH by SW8015 Mod

Seq Number: 3132634

Parent Sample Id: 668065-002

Matrix: Soil

MS Sample Id: 668065-002 S

Prep Method: SW8015P

Date Prep: 07.24.2020

MSD Sample Id: 668065-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	977	98	968	97	70-135	1	35	mg/kg	07.24.2020 12:48	
Diesel Range Organics (DRO)	<50.2	1000	1030	103	1020	102	70-135	1	35	mg/kg	07.24.2020 12:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		133		70-135	%	07.24.2020 12:48
o-Terphenyl	126		127		70-135	%	07.24.2020 12:48

Analytical Method: BTEX by EPA 8021B

Seq Number: 3132662

MB Sample Id: 7708007-1-BLK

Matrix: Solid

LCS Sample Id: 7708007-1-BKS

Prep Method: SW5035A

Date Prep: 07.24.2020

LCSD Sample Id: 7708007-1-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	0.103	103	0.100	100	70-130	3	35	mg/kg	07.24.2020 11:45	
Toluene	<0.00200	0.100	0.0978	98	0.0947	95	70-130	3	35	mg/kg	07.24.2020 11:45	
Ethylbenzene	<0.00200	0.100	0.100	100	0.0978	98	71-129	2	35	mg/kg	07.24.2020 11:45	
m,p-Xylenes	<0.00400	0.200	0.202	101	0.197	99	70-135	3	35	mg/kg	07.24.2020 11:45	
o-Xylene	<0.00200	0.100	0.102	102	0.0994	99	71-133	3	35	mg/kg	07.24.2020 11:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		98		99		70-130	%	07.24.2020 11:45
4-Bromofluorobenzene	104		99		100		70-130	%	07.24.2020 11:45

Analytical Method: BTEX by EPA 8021B

Seq Number: 3132662

Parent Sample Id: 668056-011

Matrix: Soil

MS Sample Id: 668056-011 S

Prep Method: SW5035A

Date Prep: 07.24.2020

MSD Sample Id: 668056-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.100	100	0.0990	99	70-130	1	35	mg/kg	07.24.2020 13:42	
Toluene	<0.00200	0.0998	0.0944	95	0.0930	93	70-130	1	35	mg/kg	07.24.2020 13:42	
Ethylbenzene	<0.00200	0.0998	0.0984	99	0.0934	93	71-129	5	35	mg/kg	07.24.2020 13:42	
m,p-Xylenes	<0.00399	0.200	0.197	99	0.190	95	70-135	4	35	mg/kg	07.24.2020 13:42	
o-Xylene	<0.00200	0.0998	0.0983	98	0.0946	95	71-133	4	35	mg/kg	07.24.2020 13:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		98		70-130	%	07.24.2020 13:42
4-Bromofluorobenzene	103		102		70-130	%	07.24.2020 13:42

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



Chain of Custody

Work Order No:

u18018

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 Cashtad, NM (432) 704-5440
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-67

www.xenco.com

Page _____ of _____

Project Manager:	Dan Meier	Bill to: (if different)	Eyle L'Hire II
Company Name:	LT Environ mental, Inc. Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3105 East Green Street
City, State ZIP:	Muskogee, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	stop@Henvu.com, danor.8@Henvu.com, ktenedey@Henvu.com

Work Order Comments

Program: UST/PT ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other: _____

Project Name:	Pike Lake Unit CUS JV BS #1014	Turn Around
Project Number:	012919271	Routine ☒
Project Location		Rush:
Sampler's Name:	Sevick Co	Due Date:
PO #:		Quote #:

ANALYSIS REQUEST										Preservative Codes
										MeOH: Me
										Nom: NO
										HNO ₃ : HN
										H ₂ SO ₄ : H ₂

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	-4.6 / -4.4				Thermometer ID		
Received intact:	Yes No				TNN007		
Cooler Custody Seals:	Yes No				Correction Factor:	-0.2	
Sample Custody Seals:	Yes No				Total Containers:	1	

Number of Containers

(EPA 8015)

x (EPA 8021)

de (EPA 300)

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:

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 : Hd

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenoco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenoco 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 Xenoco. A minimum charge of \$73.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenoco, 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
		7/23/20 16:50			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07.23.2020 04.50.00 PM

Work Order #: 668098

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)?	4.4
#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

Sample received in bulk container.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 07.23.2020

Checklist reviewed by:



Jessica Kramer

Date: 07.24.2020

Certificate of Analysis Summary 668099



LT Environmental, Inc., Arvada, CO

Project Name: Poker Lake Unit CVS BS #010H

Project Id: 012919271

Date Received in Lab: Thu 07.23.2020 16:50

Contact: Dan Moir

Report Date: 07.27.2020 12:55

Project Location:

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	668099-001					
	Field Id:	FS40					
	Depth:	4- ft					
	Matrix:	SOIL					
	Sampled:	07.23.2020 15:15					
BTEX by EPA 8021B	Extracted:	07.24.2020 09:35					
	Analyzed:	07.24.2020 17:01					
	Units/RL:	mg/kg RL					
Benzene		<0.00200 0.00200					
Toluene		<0.00200 0.00200					
Ethylbenzene		<0.00200 0.00200					
m,p-Xylenes		<0.00399 0.00399					
o-Xylene		<0.00200 0.00200					
Total Xylenes		<0.00200 0.00200					
Total BTEX		<0.00200 0.00200					
Chloride by EPA 300	Extracted:	07.24.2020 12:28					
	Analyzed:	07.24.2020 14:09					
	Units/RL:	mg/kg RL					
Chloride		369 10.0					
TPH by SW8015 Mod	Extracted:	07.24.2020 14:00					
	Analyzed:	07.24.2020 14:31					
	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		<49.8 49.8					
Total TPH		<49.8 49.8					

BRL - Below Reporting Limit

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



Analytical Report 668099

for

LT Environmental, Inc.

Project Manager: Dan Moir

Poker Lake Unit CVS BS #010H

012919271

07.27.2020

Collected By: Client

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

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.27.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **668099**

Poker Lake Unit CVS BS #010H

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) 668099. 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. 668099 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 668099

LT Environmental, Inc., Arvada, CO

Poker Lake Unit CVS BS #010H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS40	S	07.23.2020 15:15	4 ft	668099-001



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *Poker Lake Unit CVS BS #010H*

Project ID: 012919271

Report Date: 07.27.2020

Work Order Number(s): 668099

Date Received: 07.23.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 668099

LT Environmental, Inc., Arvada, CO

Poker Lake Unit CVS BS #010H

Sample Id: **FS40**
Lab Sample Id: 668099-001

Matrix: Soil
Date Collected: 07.23.2020 15:15

Date Received: 07.23.2020 16:50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3132658

Date Prep: 07.24.2020 12:28

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	369	10.0	mg/kg	07.24.2020 14:09		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3132634

Date Prep: 07.24.2020 14:00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	07.24.2020 14:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	07.24.2020 14:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	07.24.2020 14:31	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	07.24.2020 14:31	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	07.24.2020 14:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	07.24.2020 14:31	
o-Terphenyl	84-15-1	106	%	70-135	07.24.2020 14:31	



Certificate of Analytical Results 668099

LT Environmental, Inc., Arvada, CO

Poker Lake Unit CVS BS #010H

Sample Id: **FS40**
Lab Sample Id: 668099-001

Matrix: Soil
Date Collected: 07.23.2020 15:15

Date Received: 07.23.2020 16:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 07.24.2020 09:35

Basis: Wet Weight

Seq Number: 3132662

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.24.2020 17:01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.24.2020 17:01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.24.2020 17:01	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.24.2020 17:01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.24.2020 17:01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.24.2020 17:01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.24.2020 17:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.24.2020 17:01	
4-Bromofluorobenzene	460-00-4	106	%	70-130	07.24.2020 17:01	

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.
Poker Lake Unit CVS BS #010H

Analytical Method: Chloride by EPA 300

Seq Number: 3132658

MB Sample Id: 7708057-1-BLK

Matrix: Solid

LCS Sample Id: 7708057-1-BKS

Prep Method: E300P

Date Prep: 07.24.2020

LCSD Sample Id: 7708057-1-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	265	106	274	110	90-110	3	20	mg/kg	07.24.2020 13:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3132658

Parent Sample Id: 668098-001

Matrix: Soil

MS Sample Id: 668098-001 S

Prep Method: E300P

Date Prep: 07.24.2020

MSD Sample Id: 668098-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	310	200	518	104	517	104	90-110	0	20	mg/kg	07.24.2020 13:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3132658

Parent Sample Id: 668154-005

Matrix: Soil

MS Sample Id: 668154-005 S

Prep Method: E300P

Date Prep: 07.24.2020

MSD Sample Id: 668154-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	136	199	339	102	342	104	90-110	1	20	mg/kg	07.24.2020 15:27	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3132634

MB Sample Id: 7708098-1-BLK

Matrix: Solid

LCS Sample Id: 7708098-1-BKS

Prep Method: SW8015P

Date Prep: 07.24.2020

LCSD Sample Id: 7708098-1-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	968	97	1010	101	70-135	4	35	mg/kg	07.24.2020 11:29	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1160	116	70-135	4	35	mg/kg	07.24.2020 11:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		127		129		70-135	%	07.24.2020 11:29
o-Terphenyl	120		117		125		70-135	%	07.24.2020 11:29

Analytical Method: TPH by SW8015 Mod

Seq Number: 3132634

Matrix: Solid

MB Sample Id: 7708098-1-BLK

Prep Method: SW8015P

Date Prep: 07.24.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.24.2020 11:09	

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.
 Poker Lake Unit CVS BS #010H
Analytical Method: TPH by SW8015 Mod

Seq Number: 3132634

Parent Sample Id: 668065-002

Matrix: Soil

MS Sample Id: 668065-002 S

Prep Method: SW8015P

Date Prep: 07.24.2020

MSD Sample Id: 668065-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	977	98	968	97	70-135	1	35	mg/kg	07.24.2020 12:48	
Diesel Range Organics (DRO)	<50.2	1000	1030	103	1020	102	70-135	1	35	mg/kg	07.24.2020 12:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		133		70-135	%	07.24.2020 12:48
o-Terphenyl	126		127		70-135	%	07.24.2020 12:48

Analytical Method: BTEX by EPA 8021B

Seq Number: 3132662

MB Sample Id: 7708007-1-BLK

Matrix: Solid

LCS Sample Id: 7708007-1-BKS

Prep Method: SW5035A

Date Prep: 07.24.2020

LCSD Sample Id: 7708007-1-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	0.103	103	0.100	100	70-130	3	35	mg/kg	07.24.2020 11:45	
Toluene	<0.00200	0.100	0.0978	98	0.0947	95	70-130	3	35	mg/kg	07.24.2020 11:45	
Ethylbenzene	<0.00200	0.100	0.100	100	0.0978	98	71-129	2	35	mg/kg	07.24.2020 11:45	
m,p-Xylenes	<0.00400	0.200	0.202	101	0.197	99	70-135	3	35	mg/kg	07.24.2020 11:45	
o-Xylene	<0.00200	0.100	0.102	102	0.0994	99	71-133	3	35	mg/kg	07.24.2020 11:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		98		99		70-130	%	07.24.2020 11:45
4-Bromofluorobenzene	104		99		100		70-130	%	07.24.2020 11:45

Analytical Method: BTEX by EPA 8021B

Seq Number: 3132662

Parent Sample Id: 668056-011

Matrix: Soil

MS Sample Id: 668056-011 S

Prep Method: SW5035A

Date Prep: 07.24.2020

MSD Sample Id: 668056-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.100	100	0.0990	99	70-130	1	35	mg/kg	07.24.2020 13:42	
Toluene	<0.00200	0.0998	0.0944	95	0.0930	93	70-130	1	35	mg/kg	07.24.2020 13:42	
Ethylbenzene	<0.00200	0.0998	0.0984	99	0.0934	93	71-129	5	35	mg/kg	07.24.2020 13:42	
m,p-Xylenes	<0.00399	0.200	0.197	99	0.190	95	70-135	4	35	mg/kg	07.24.2020 13:42	
o-Xylene	<0.00200	0.0998	0.0983	98	0.0946	95	71-133	4	35	mg/kg	07.24.2020 13:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		98		70-130	%	07.24.2020 13:42
4-Bromofluorobenzene	103		102		70-130	%	07.24.2020 13:42

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



Chain of Custody

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

Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8900 Tampa, FL (813) 670-2000 Wichita, KS (316) 262-1000 Lubbock, TX (806) 794-1296 Crasabad, NM (432) 704-5440

Bill for the year 1990
K-11
Lampert, L (813) 620-2000 West Palm Beach, FL 3361 689-6701

www.xenco.com Page of

Work Order No: 668 077

Project Manager:	Don Meir	Bill to: (if different)	Kyle Liffrell
Company Name:	LT Environmental, Inc. - Permian Office	Company Name:	XTO Energy
Address:	3302 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88120
Phone:	432.236.3849	Email:	510@henv.com, dmeir@henv.com, klenndy@henv.com
Project Name:	Picker Lake Plant Closures and		

Program: ☐UST/☐PST ☐PRP ☐Brownfields ☐RRC ☐Superfund ☐
 State of Project: _____
 Reporting Level: ☐I ☐Level III ☐PST/UST ☐TRRP ☐Level IV ☐
 Deliverables: EDD ☐ ADAPT ☐ Other: _____

www.xenco.com Page _____ of _____
 Work Order Comments

[illegible]

Total	200.7 / 6010	200.8 / 6020:
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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	SiO ₂	Na	Sr	Ti	Sn	V	Zn
TC1P / SPLP 6010:	8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	SiO ₂	Na	Sr	Ti	Sn	V	Zn							

1631 / 245.1 / 7470 / 7471 : Hg

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		7/23/20 16:50			

Revised Data entry 01-01-2022

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07.23.2020 04.50.00 PM

Work Order #: 668099

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)?	4.4
#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

Sample received in bulk container.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 07.23.2020

Checklist reviewed by:



Jessica Kramer

Date: 07.24.2020

Certificate of Analysis Summary 668100

LT Environmental, Inc., Arvada, CO

Project Name: Poker Lake Unit CVS BS #010H

Project Id: 012919271

Contact: Dan Moir

Project Location:

Date Received in Lab: Thu 07.23.2020 16:50

Report Date: 07.27.2020 12:45

Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 668100-001 Field Id: FS41 Depth: 4- ft Matrix: SOIL Sampled: 07.23.2020 15:25					
BTEX by EPA 8021B	Extracted: 07.24.2020 09:35 Analyzed: 07.24.2020 17:21 Units/RL: mg/kg RL					
Benzene	<0.00200 0.00200					
Toluene	<0.00200 0.00200					
Ethylbenzene	<0.00200 0.00200					
m,p-Xylenes	<0.00400 0.00400					
o-Xylene	<0.00200 0.00200					
Total Xylenes	<0.00200 0.00200					
Total BTEX	<0.00200 0.00200					
Chloride by EPA 300	Extracted: 07.24.2020 12:28 Analyzed: 07.24.2020 14:14 Units/RL: mg/kg RL					
Chloride	465 10.1					
TPH by SW8015 Mod	Extracted: 07.24.2020 14:00 Analyzed: 07.24.2020 14:51 Units/RL: mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<50.0 50.0					
Diesel Range Organics (DRO)	<50.0 50.0					
Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0					
Total GRO-DRO	<50.0 50.0					
Total TPH	<50.0 50.0					

BRL - Below Reporting Limit

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





Environment Testing
Xenco

Analytical Report 668100

for

LT Environmental, Inc.

Project Manager: Dan Moir

Poker Lake Unit CVS BS #010H

012919271

07.27.2020

Collected By: Client

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

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.27.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **668100**

Poker Lake Unit CVS BS #010H

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) 668100. 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. 668100 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 668100

LT Environmental, Inc., Arvada, CO

Poker Lake Unit CVS BS #010H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS41	S	07.23.2020 15:25	4 ft	668100-001



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *Poker Lake Unit CVS BS #010H*

Project ID: 012919271
Work Order Number(s): 668100

Report Date: 07.27.2020
Date Received: 07.23.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 668100

LT Environmental, Inc., Arvada, CO

Poker Lake Unit CVS BS #010H

Sample Id: **FS41** Matrix: Soil Date Received: 07.23.2020 16:50
 Lab Sample Id: 668100-001 Date Collected: 07.23.2020 15:25 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 07.24.2020 12:28 Basis: Wet Weight
 Seq Number: 3132658

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	465	10.1	mg/kg	07.24.2020 14:14		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 07.24.2020 14:00 Basis: Wet Weight
 Seq Number: 3132634

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.24.2020 14:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.24.2020 14:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.24.2020 14:51	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	07.24.2020 14:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.24.2020 14:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	07.24.2020 14:51	
o-Terphenyl	84-15-1	108	%	70-135	07.24.2020 14:51	



Certificate of Analytical Results 668100

LT Environmental, Inc., Arvada, CO

Poker Lake Unit CVS BS #010H

Sample Id: **FS41**
Lab Sample Id: 668100-001

Matrix: Soil
Date Collected: 07.23.2020 15:25

Date Received: 07.23.2020 16:50
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 07.24.2020 09:35

Basis: Wet Weight

Seq Number: 3132662

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.24.2020 17:21	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.24.2020 17:21	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.24.2020 17:21	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.24.2020 17:21	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.24.2020 17:21	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.24.2020 17:21	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.24.2020 17:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	07.24.2020 17:21	
4-Bromofluorobenzene	460-00-4	96	%	70-130	07.24.2020 17:21	

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.
Poker Lake Unit CVS BS #010H

Analytical Method: Chloride by EPA 300

Seq Number: 3132658

MB Sample Id: 7708057-1-BLK

Matrix: Solid

LCS Sample Id: 7708057-1-BKS

Prep Method: E300P

Date Prep: 07.24.2020

LCSD Sample Id: 7708057-1-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	265	106	274	110	90-110	3	20	mg/kg	07.24.2020 13:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3132658

Parent Sample Id: 668098-001

Matrix: Soil

MS Sample Id: 668098-001 S

Prep Method: E300P

Date Prep: 07.24.2020

MSD Sample Id: 668098-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	310	200	518	104	517	104	90-110	0	20	mg/kg	07.24.2020 13:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3132658

Parent Sample Id: 668154-005

Matrix: Soil

MS Sample Id: 668154-005 S

Prep Method: E300P

Date Prep: 07.24.2020

MSD Sample Id: 668154-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	136	199	339	102	342	104	90-110	1	20	mg/kg	07.24.2020 15:27	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3132634

MB Sample Id: 7708098-1-BLK

Matrix: Solid

LCS Sample Id: 7708098-1-BKS

Prep Method: SW8015P

Date Prep: 07.24.2020

LCSD Sample Id: 7708098-1-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	968	97	1010	101	70-135	4	35	mg/kg	07.24.2020 11:29	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1160	116	70-135	4	35	mg/kg	07.24.2020 11:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		127		129		70-135	%	07.24.2020 11:29
o-Terphenyl	120		117		125		70-135	%	07.24.2020 11:29

Analytical Method: TPH by SW8015 Mod

Seq Number: 3132634

Matrix: Solid

MB Sample Id: 7708098-1-BLK

Prep Method: SW8015P

Date Prep: 07.24.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.24.2020 11:09	

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.
 Poker Lake Unit CVS BS #010H
Analytical Method: TPH by SW8015 Mod

Seq Number: 3132634

Parent Sample Id: 668065-002

Matrix: Soil

MS Sample Id: 668065-002 S

Prep Method: SW8015P

Date Prep: 07.24.2020

MSD Sample Id: 668065-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	977	98	968	97	70-135	1	35	mg/kg	07.24.2020 12:48	
Diesel Range Organics (DRO)	<50.2	1000	1030	103	1020	102	70-135	1	35	mg/kg	07.24.2020 12:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		133		70-135	%	07.24.2020 12:48
o-Terphenyl	126		127		70-135	%	07.24.2020 12:48

Analytical Method: BTEX by EPA 8021B

Seq Number: 3132662

MB Sample Id: 7708007-1-BLK

Matrix: Solid

LCS Sample Id: 7708007-1-BKS

Prep Method: SW5035A

Date Prep: 07.24.2020

LCSD Sample Id: 7708007-1-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	0.103	103	0.100	100	70-130	3	35	mg/kg	07.24.2020 11:45	
Toluene	<0.00200	0.100	0.0978	98	0.0947	95	70-130	3	35	mg/kg	07.24.2020 11:45	
Ethylbenzene	<0.00200	0.100	0.100	100	0.0978	98	71-129	2	35	mg/kg	07.24.2020 11:45	
m,p-Xylenes	<0.00400	0.200	0.202	101	0.197	99	70-135	3	35	mg/kg	07.24.2020 11:45	
o-Xylene	<0.00200	0.100	0.102	102	0.0994	99	71-133	3	35	mg/kg	07.24.2020 11:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		98		99		70-130	%	07.24.2020 11:45
4-Bromofluorobenzene	104		99		100		70-130	%	07.24.2020 11:45

Analytical Method: BTEX by EPA 8021B

Seq Number: 3132662

Parent Sample Id: 668056-011

Matrix: Soil

MS Sample Id: 668056-011 S

Prep Method: SW5035A

Date Prep: 07.24.2020

MSD Sample Id: 668056-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.100	100	0.0990	99	70-130	1	35	mg/kg	07.24.2020 13:42	
Toluene	<0.00200	0.0998	0.0944	95	0.0930	93	70-130	1	35	mg/kg	07.24.2020 13:42	
Ethylbenzene	<0.00200	0.0998	0.0984	99	0.0934	93	71-129	5	35	mg/kg	07.24.2020 13:42	
m,p-Xylenes	<0.00399	0.200	0.197	99	0.190	95	70-135	4	35	mg/kg	07.24.2020 13:42	
o-Xylene	<0.00200	0.0998	0.0983	98	0.0946	95	71-133	4	35	mg/kg	07.24.2020 13:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		98		70-130	%	07.24.2020 13:42
4-Bromofluorobenzene	103		102		70-130	%	07.24.2020 13:42

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



Chain of Custody

Work Order No.:

128100

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) 586-3443 Lubbock, TX (806) 794-1296 Crasabad, NM (432) 704-5440
Phoenix, AZ (480) 335-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 833-3333

Fluorimex, AZ (480) 335-0900	Atlanta, GA (770) 449-8800	Tampa, FL (813) 620-2000	West Palm Beach, FL (561) 689-6701
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Page 1 of 1

Project Manager:	Dan Meier	Bill to: (if different)	kye L:Heall
Company Name:	LT Environmental, Inc. Permian Office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88320
Phone:	432.236.3849	Email:	slg@heall.com, dmeier@ltheall.com, kkenney@heall.com
Project Name:	Project 1 to 11.1 Custer		

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRAP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

Project Number:	012919271	Turn Around
Project Location		☒ Routine
Sampler's Name:	Spencer Lo	Rush:
PO #:		Due Date:
	Quote #:	

[illegible]

SAMPLE RECEIPT		Temp Blank:	☒ Yes	☐ No	Wet Ice:	☒ Yes	☐ No
Temperature ('C):	A-6/A-4				Thermometer ID		
Received Intact:	(X) Yes No				TMM007		
Cooler Custody Seals:	Yes No	N/A			Correction Factor:	-0.2	
Sample Custody Seals:	Yes No	N/A			Total Containers:	1	

H ₂ SO ₄ : H ₂
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth
	fs41	S	7.23.20	1525	4'

[illegible]A blank sheet of graph paper with a grid pattern. The grid consists of horizontal and vertical lines forming small squares. There are some faint, illegible markings near the top left corner, possibly from a previous page or a stamp. The rest of the page is empty.

Total 200.7 / 6010	200.8 / 6020:
--------------------	---------------

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.

Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
	7/23/20 16:50			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07.23.2020 04.50.00 PM

Work Order #: 668100

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)?	4.4
#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

Sample received in bulk container.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 07.23.2020

Checklist reviewed by:



Jessica Kramer

Date: 07.24.2020

Certificate of Analysis Summary 668972



LT Environmental, Inc., Arvada, CO

Project Name: PLU CVS JV BS #010H

Project Id: 012919271

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon 08.03.2020 16:00

Report Date: 08.04.2020 11:29

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	668972-001					
	Field Id:	SW15					
	Depth:	0-4 ft					
	Matrix:	SOIL					
	Sampled:	08.03.2020 11:55					
BTEX by EPA 8021B	Extracted:	08.03.2020 16:34					
	Analyzed:	08.03.2020 18:33					
	Units/RL:	mg/kg RL					
Benzene		<0.00200 0.00200					
Toluene		<0.00200 0.00200					
Ethylbenzene		<0.00200 0.00200					
m,p-Xylenes		<0.00399 0.00399					
o-Xylene		<0.00200 0.00200					
Total Xylenes		<0.00200 0.00200					
Total BTEX		<0.00200 0.00200					
Chloride by EPA 300	Extracted:	08.03.2020 17:01					
	Analyzed:	08.03.2020 18:21					
	Units/RL:	mg/kg RL					
Chloride		229 9.96					
TPH by SW8015 Mod	Extracted:	08.03.2020 16:11					
	Analyzed:	08.03.2020 17:15					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2					
Diesel Range Organics (DRO)		<50.2 50.2					
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2					
Total GRO-DRO		<50.2 50.2					
Total TPH		<50.2 50.2					

BRL - Below Reporting Limit

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



Analytical Report 668972

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU CVS JV BS #010H

012919271

08.04.2020

Collected By: Client

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

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



08.04.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **668972**

PLU CVS JV BS #010H

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) 668972. 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. 668972 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 668972

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #010H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW15	S	08.03.2020 11:55	0 - 4 ft	668972-001



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *PLU CVS JV BS #010H*

Project ID: 012919271
Work Order Number(s): 668972

Report Date: 08.04.2020
Date Received: 08.03.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 668972

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #010H

Sample Id: **SW15** Matrix: Soil Date Received: 08.03.2020 16:00
 Lab Sample Id: 668972-001 Date Collected: 08.03.2020 11:55 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.03.2020 17:01 Basis: Wet Weight
 Seq Number: 3133430

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	229	9.96	mg/kg	08.03.2020 18:21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.03.2020 16:11 Basis: Wet Weight
 Seq Number: 3133363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.03.2020 17:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	08.03.2020 17:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	08.03.2020 17:15	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	08.03.2020 17:15	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	08.03.2020 17:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	08.03.2020 17:15	
o-Terphenyl	84-15-1	97	%	70-135	08.03.2020 17:15	



Certificate of Analytical Results 668972

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #010H

Sample Id: **SW15**
Lab Sample Id: 668972-001

Matrix: Soil
Date Collected: 08.03.2020 11:55

Date Received: 08.03.2020 16:00
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 08.03.2020 16:34

Basis: Wet Weight

Seq Number: 3133428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.03.2020 18:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.03.2020 18:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.03.2020 18:33	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.03.2020 18:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.03.2020 18:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.03.2020 18:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.03.2020 18:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.03.2020 18:33	
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.03.2020 18:33	

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 CVS JV BS #010H

Analytical Method: Chloride by EPA 300

Seq Number: 3133430

MB Sample Id: 7708638-1-BLK

Matrix: Solid

LCS Sample Id: 7708638-1-BKS

Prep Method: E300P

Date Prep: 08.03.2020

LCSD Sample Id: 7708638-1-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	268	107	267	107	90-110	0	20	mg/kg	08.03.2020 16:56	

Analytical Method: Chloride by EPA 300

Seq Number: 3133430

Parent Sample Id: 668916-001

Matrix: Soil

MS Sample Id: 668916-001 S

Prep Method: E300P

Date Prep: 08.03.2020

MSD Sample Id: 668916-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	243	200	448	103	449	103	90-110	0	20	mg/kg	08.03.2020 17:13	

Analytical Method: Chloride by EPA 300

Seq Number: 3133430

Parent Sample Id: 668975-004

Matrix: Soil

MS Sample Id: 668975-004 S

Prep Method: E300P

Date Prep: 08.03.2020

MSD Sample Id: 668975-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	61.3	200	271	105	269	104	90-110	1	20	mg/kg	08.03.2020 19:06	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3133363

MB Sample Id: 7708598-1-BLK

Matrix: Solid

LCS Sample Id: 7708598-1-BKS

Prep Method: SW8015P

Date Prep: 08.03.2020

LCSD Sample Id: 7708598-1-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	893	89	900	90	70-135	1	35	mg/kg	08.03.2020 12:24	
Diesel Range Organics (DRO)	<50.0	1000	950	95	962	96	70-135	1	35	mg/kg	08.03.2020 12:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	89		107		108		70-135	%	08.03.2020 12:24
o-Terphenyl	93		100		102		70-135	%	08.03.2020 12:24

Analytical Method: TPH by SW8015 Mod

Seq Number: 3133363

Matrix: Solid

MB Sample Id: 7708598-1-BLK

Prep Method: SW8015P

Date Prep: 08.03.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.03.2020 12:04	

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 CVS JV BS #010H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3133363

Parent Sample Id: 668916-001

Matrix: Soil

MS Sample Id: 668916-001 S

Prep Method: SW8015P

Date Prep: 08.03.2020

MSD Sample Id: 668916-001 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)	<50.1	1000	869	87	884	88	70-135	2	35	mg/kg	08.03.2020 13:25	
Diesel Range Organics (DRO)	<50.1	1000	956	96	978	98	70-135	2	35	mg/kg	08.03.2020 13:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		106		70-135	%	08.03.2020 13:25
o-Terphenyl	101		102		70-135	%	08.03.2020 13:25

Analytical Method: BTEX by EPA 8021B

Seq Number: 3133428

MB Sample Id: 7708618-1-BLK

Matrix: Solid

LCS Sample Id: 7708618-1-BKS

Prep Method: SW5035A

Date Prep: 08.03.2020

LCSD Sample Id: 7708618-1-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	0.105	105	0.113	113	70-130	7	35	mg/kg	08.03.2020 15:45	
Toluene	<0.00200	0.100	0.0997	100	0.108	108	70-130	8	35	mg/kg	08.03.2020 15:45	
Ethylbenzene	<0.00200	0.100	0.0930	93	0.100	100	71-129	7	35	mg/kg	08.03.2020 15:45	
m,p-Xylenes	<0.00400	0.200	0.189	95	0.204	102	70-135	8	35	mg/kg	08.03.2020 15:45	
o-Xylene	<0.00200	0.100	0.0928	93	0.100	100	71-133	7	35	mg/kg	08.03.2020 15:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		98		70-130	%	08.03.2020 15:45
4-Bromofluorobenzene	94		101		100		70-130	%	08.03.2020 15:45

Analytical Method: BTEX by EPA 8021B

Seq Number: 3133428

Parent Sample Id: 668916-001

Matrix: Soil

MS Sample Id: 668916-001 S

Prep Method: SW5035A

Date Prep: 08.03.2020

MSD Sample Id: 668916-001 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	0.129	129	0.130	129	70-130	1	35	mg/kg	08.03.2020 16:30	
Toluene	<0.00201	0.100	0.122	122	0.123	122	70-130	1	35	mg/kg	08.03.2020 16:30	
Ethylbenzene	<0.00201	0.100	0.114	114	0.113	112	71-129	1	35	mg/kg	08.03.2020 16:30	
m,p-Xylenes	<0.00402	0.201	0.231	115	0.228	113	70-135	1	35	mg/kg	08.03.2020 16:30	
o-Xylene	<0.00201	0.100	0.113	113	0.112	111	71-133	1	35	mg/kg	08.03.2020 16:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		70-130	%	08.03.2020 16:30
4-Bromofluorobenzene	103		104		70-130	%	08.03.2020 16:30

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.:

uu8972

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3333
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296

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

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Page ____ of ____

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

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

Project Name:	PLU CUS JV BS #010H	Turn Around
Project Number:	012919271	Routine ☒
P.O. Number:		Rush:
Sampler's Name:	Spencer Lo	Due Date:

SAMPLE RECEIPT	Temp Blank:		Yes	No	Wet Ice:	Yes	No
Temperature (°C):	A-1/A-2		☒	☐	Thermometer ID		
Received Intact:	Yes No		☒	☐	TMM07		
Cooler Custody Seals:	Yes No		☒	☐	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No	N/A	☒	☐	Total Containers:	1	

[illegible][illegible][illegible]

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 08.03.2020 04.00.00 PM

Work Order #: 668972

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)?	4.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

Sample received in bulk container.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 08.03.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.04.2020

Certificate of Analysis Summary 668973



LT Environmental, Inc., Arvada, CO

Project Name: PLU CVS JV BS #010H

Project Id: 012919271

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon 08.03.2020 16:00

Report Date: 08.04.2020 11:29

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	668973-001					
	Field Id:	FS42					
	Depth:	4- ft					
	Matrix:	SOIL					
	Sampled:	08.03.2020 12:05					
BTEX by EPA 8021B	Extracted:	08.03.2020 16:34					
	Analyzed:	08.03.2020 18:55					
	Units/RL:	mg/kg RL					
Benzene		<0.00198 0.00198					
Toluene		<0.00198 0.00198					
Ethylbenzene		<0.00198 0.00198					
m,p-Xylenes		<0.00397 0.00397					
o-Xylene		<0.00198 0.00198					
Total Xylenes		<0.00198 0.00198					
Total BTEX		<0.00198 0.00198					
Chloride by EPA 300	Extracted:	08.03.2020 17:01					
	Analyzed:	08.03.2020 18:27					
	Units/RL:	mg/kg RL					
Chloride		348 10.0					
TPH by SW8015 Mod	Extracted:	08.03.2020 16:11					
	Analyzed:	08.03.2020 17:35					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1					
Diesel Range Organics (DRO)		<50.1 50.1					
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1					
Total GRO-DRO		<50.1 50.1					
Total TPH		<50.1 50.1					

BRL - Below Reporting Limit

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



Analytical Report 668973

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU CVS JV BS #010H

012919271

08.04.2020

Collected By: Client

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

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



08.04.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **668973**

PLU CVS JV BS #010H

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) 668973. 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. 668973 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 668973

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #010H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS42	S	08.03.2020 12:05	4 ft	668973-001



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVS JV BS #010H

Project ID: 012919271
Work Order Number(s): 668973

Report Date: 08.04.2020
Date Received: 08.03.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 668973

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #010H

Sample Id: **FS42** Matrix: Soil Date Received: 08.03.2020 16:00
 Lab Sample Id: 668973-001 Date Collected: 08.03.2020 12:05 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 08.03.2020 17:01 Basis: Wet Weight
 Seq Number: 3133430

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	348	10.0	mg/kg	08.03.2020 18:27		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.03.2020 16:11 Basis: Wet Weight
 Seq Number: 3133363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.03.2020 17:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	08.03.2020 17:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	08.03.2020 17:35	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	08.03.2020 17:35	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	08.03.2020 17:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	08.03.2020 17:35	
o-Terphenyl	84-15-1	94	%	70-135	08.03.2020 17:35	



Certificate of Analytical Results 668973

LT Environmental, Inc., Arvada, CO

PLU CVS JV BS #010H

Sample Id: **FS42**
Lab Sample Id: 668973-001

Matrix: Soil
Date Collected: 08.03.2020 12:05

Date Received: 08.03.2020 16:00
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3133428

Prep Method: SW5035A

% Moisture:

Date Prep: 08.03.2020 16:34

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.03.2020 18:55	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.03.2020 18:55	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.03.2020 18:55	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.03.2020 18:55	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.03.2020 18:55	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.03.2020 18:55	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.03.2020 18:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.03.2020 18:55	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.03.2020 18:55	

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.
PLU CVS JV BS #010H

Analytical Method: Chloride by EPA 300

Seq Number: 3133430

MB Sample Id: 7708638-1-BLK

Matrix: Solid

LCS Sample Id: 7708638-1-BKS

Prep Method: E300P

Date Prep: 08.03.2020

LCSD Sample Id: 7708638-1-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	268	107	267	107	90-110	0	20	mg/kg	08.03.2020 16:56	

Analytical Method: Chloride by EPA 300

Seq Number: 3133430

Parent Sample Id: 668916-001

Matrix: Soil

MS Sample Id: 668916-001 S

Prep Method: E300P

Date Prep: 08.03.2020

MSD Sample Id: 668916-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	243	200	448	103	449	103	90-110	0	20	mg/kg	08.03.2020 17:13	

Analytical Method: Chloride by EPA 300

Seq Number: 3133430

Parent Sample Id: 668975-004

Matrix: Soil

MS Sample Id: 668975-004 S

Prep Method: E300P

Date Prep: 08.03.2020

MSD Sample Id: 668975-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	61.3	200	271	105	269	104	90-110	1	20	mg/kg	08.03.2020 19:06	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3133363

MB Sample Id: 7708598-1-BLK

Matrix: Solid

LCS Sample Id: 7708598-1-BKS

Prep Method: SW8015P

Date Prep: 08.03.2020

LCSD Sample Id: 7708598-1-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	893	89	900	90	70-135	1	35	mg/kg	08.03.2020 12:24	
Diesel Range Organics (DRO)	<50.0	1000	950	95	962	96	70-135	1	35	mg/kg	08.03.2020 12:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	89		107		108		70-135	%	08.03.2020 12:24
o-Terphenyl	93		100		102		70-135	%	08.03.2020 12:24

Analytical Method: TPH by SW8015 Mod

Seq Number: 3133363

Matrix: Solid

MB Sample Id: 7708598-1-BLK

Prep Method: SW8015P

Date Prep: 08.03.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.03.2020 12:04	

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 CVS JV BS #010H

Analytical Method: TPH by SW8015 Mod

Seq Number: 3133363

Parent Sample Id: 668916-001

Matrix: Soil

MS Sample Id: 668916-001 S

Prep Method: SW8015P

Date Prep: 08.03.2020

MSD Sample Id: 668916-001 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)	<50.1	1000	869	87	884	88	70-135	2	35	mg/kg	08.03.2020 13:25	
Diesel Range Organics (DRO)	<50.1	1000	956	96	978	98	70-135	2	35	mg/kg	08.03.2020 13:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		106		70-135	%	08.03.2020 13:25
o-Terphenyl	101		102		70-135	%	08.03.2020 13:25

Analytical Method: BTEX by EPA 8021B

Seq Number: 3133428

MB Sample Id: 7708618-1-BLK

Matrix: Solid

LCS Sample Id: 7708618-1-BKS

Prep Method: SW5035A

Date Prep: 08.03.2020

LCSD Sample Id: 7708618-1-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	0.105	105	0.113	113	70-130	7	35	mg/kg	08.03.2020 15:45	
Toluene	<0.00200	0.100	0.0997	100	0.108	108	70-130	8	35	mg/kg	08.03.2020 15:45	
Ethylbenzene	<0.00200	0.100	0.0930	93	0.100	100	71-129	7	35	mg/kg	08.03.2020 15:45	
m,p-Xylenes	<0.00400	0.200	0.189	95	0.204	102	70-135	8	35	mg/kg	08.03.2020 15:45	
o-Xylene	<0.00200	0.100	0.0928	93	0.100	100	71-133	7	35	mg/kg	08.03.2020 15:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		98		70-130	%	08.03.2020 15:45
4-Bromofluorobenzene	94		101		100		70-130	%	08.03.2020 15:45

Analytical Method: BTEX by EPA 8021B

Seq Number: 3133428

Parent Sample Id: 668916-001

Matrix: Soil

MS Sample Id: 668916-001 S

Prep Method: SW5035A

Date Prep: 08.03.2020

MSD Sample Id: 668916-001 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	0.129	129	0.130	129	70-130	1	35	mg/kg	08.03.2020 16:30	
Toluene	<0.00201	0.100	0.122	122	0.123	122	70-130	1	35	mg/kg	08.03.2020 16:30	
Ethylbenzene	<0.00201	0.100	0.114	114	0.113	112	71-129	1	35	mg/kg	08.03.2020 16:30	
m,p-Xylenes	<0.00402	0.201	0.231	115	0.228	113	70-135	1	35	mg/kg	08.03.2020 16:30	
o-Xylene	<0.00201	0.100	0.113	113	0.112	111	71-133	1	35	mg/kg	08.03.2020 16:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		70-130	%	08.03.2020 16:30
4-Bromofluorobenzene	103		104		70-130	%	08.03.2020 16:30

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:

16312451747017471

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) 392-7560 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 Littlell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	slao@ltenv.com, dmoir@ltenv.com, kkennedy@ltenv.com

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

Project Name:	PLU CUS SV BS #010H	Turn Around	
Project Number:	012919271	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT		Temp Blank:	☒ Yes ☐ No	Wet Ice:	☒ Yes ☐ No
Temperature (°C):	4.4/4.2	Thermometer ID	TMM007		
Received In tact:	☒ Yes ☐ No	Correction Factor:	-0.2		
Cooler Custody Seals:	☒ Yes ☐ No	Total Containers:	1		
Sample Custody Seals:	☒ Yes ☐ No				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth
F542	S	8-7-20	1205	4'

Number of Containers		
TPH (EPA 8015)	☒	
BTEX (EPA 0-8021)	☒	
Chloride (EPA 300.0)	☒	

ANALYSIS REQUEST

Work Order Notes

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

ce: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control enco. 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
		8/3/20 16:00			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Acceptable Temperature Range: 0 - 6 degC

Date/ Time Received: 08.03.2020 04.00.00 PM

Air and Metal samples Acceptable Range: Ambient

Work Order #: 668973

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

Sample received in bulk container.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 08.03.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.04.2020

Incident ID	NRM2002150698
District RP	
Facility ID	
Application ID	

Closure

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

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

- ☒ 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 OCD 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: _____

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: Robert Hamlet Date: 12/11/2020

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: Robert Hamlet Date: 12/11/2020

Printed Name: Robert Hamlet Title: Environmental Eng. Tech. III

From: [Hamlet, Robert, EMNRD](#)
To: [Baker, Adrian](#)
Cc: [Bratcher, Mike, EMNRD](#); [Eads, Cristina, EMNRD](#); [CFO_Spill, BLM_NM](#)
Subject: Closure Approval - XTO - Poker Lake Unit CVS JV BS #010H - (Incident #NRM2002150698)
Date: Friday, December 11, 2020 1:46:00 PM
Attachments: [Closure Approval - XTO - Poker Lake Unit CVS JV BS #010H - \(Incident #NRM2002150698\).pdf](#)

Adrian,

We have received your closure report and final C-141 for **Incident #NRM2002150698 Poker Lake Unit CVS JV BS #010H**, thank you. This closure is approved.

Please let me know if you have any further questions.

Regards,

Robert Hamlet • Environmental Eng. Tech. III
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
505.748.1283 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



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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 9895

CONDITIONS OF APPROVAL

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland, TX79707		OGRID: 5380	Action Number: 9895	Action Type: C-141
OCD Reviewer	Condition			
rhamlet	We have received your closure report and final C-141 for Incident #NRM2002150698 Poker Lake Unit CVS JV BS #010H, thank you. This closure is approved.			