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	NRM2015454866
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.12424 Longitude -103.89604
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Pierce Canyon 17 TB	Site Type Tank Battery
Date Release Discovered 5-17-2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
P	17	25S	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)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 35	Volume Recovered (bbls) 35
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Water tanks overflowed through top of the thief hatches on the PC 17 TB. A vac truck was dispatched and recovered 35 bbl PW from inside impermeable containment. Liner inspection determined the liner was insufficient. A third-party contractor has been retained for remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2015454866
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? Release was 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; Crisha Morgan; 'Griswold, Jim, EMNRD' via email on Monday, May 18, 2020 1:51 PM.	

Initial Response

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

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

N/A

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Kyle Littrell
Title: SH&E Supervisor

Signature:
Date: 5-29-20

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

OCD Only

Received by: Ramona Marcus
Date: 6/2/2020

NRM2015454866

Location:	Pierce Canyon 17 TB	
Spill Date:	5/17/2020	
Area 1		
Approximate Area =	196.51	cu. ft.
VOLUME RECOVERED		
Total Produced Water =	35.00	bbls

TOTAL VOLUME OF LEAK		
Total Produced Water =	**35.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Produced Water =	**35.00**	**bbls**

Incident ID	NRM2015454866
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (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	NRM2015454866
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: _____

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

OCD Only

Received by: _____ Date: _____

Incident ID	NRM2015454866
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

☑ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☑ Extents of contamination must be fully delineated.

☑ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

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LT Environmental, Inc.
3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

August 5, 2020

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

RE: Deferral Request
Pierce Canyon 17 TB
Incident Number NRM2015454866
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, soil sampling, and remediation activities at the Pierce Canyon 17 TB (Site) in Unit P, Section 17, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impact to soil resulting from an unauthorized release of produced water at the Site. Based on field observations, field screening, and laboratory analytical results from soil sampling activities, XTO is submitting this Deferral Request and requesting no further action (NFA) for Incident Number NRM2015454866.

RELEASE BACKGROUND

On May 17, 2020, a water tank overflowed through the top of the thief hatches, resulting in the release of approximately 35 barrels (bbls) of produced water into the lined tank battery containment. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids, of which approximately 35 bbls of produced were recovered. A liner integrity inspection was immediately conducted by XTO personnel following the recovery. A 48-hour advance notice of liner inspection was provided via email to the NMOCD District II office and upon inspection, the liner was determined to be compromised. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on May 18, 2020 and submitted a Form C-141 on May 29, 2020 that was subsequently assigned Incident Number NRM2015454866.

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 and regional depth to water determination. The closest permitted groundwater well with depth to groundwater data is

United States Geologic Survey (USGS) well 320628103533001, located approximately 1.1 miles south of the Site. The water well has an approved reported depth to groundwater from 1998 of 265 feet bgs and a total depth of 288 feet bgs. Within a 3.63 mile radius from the Site, there are five additional water wells that indicate regional depth to groundwater is greater than 100 feet bgs at the Site location. All water wells used for depth to groundwater determination are depicted on Figure 1 and are referenced in in Attachment 1. Of these water wells, data from USGS well 320849103533902 was utilized for the depth to groundwater determination for Incident Number NAB1914836701 (Poker Lake Unit Pierce Canyon 17 SWD #1) and was approximately 0.96 miles from the Site. Incident Number NAB1914836701 was approved by the NMOCD on July 29, 2019. New Mexico Office of the State Engineer (NMOSE) well C-03782 was most recently drilled in January 2015. NMOSE well C-03782 is located 2 miles south of the Site and has a reported depth to water of 277 feet bgs. The closest continuously flowing water or significant watercourse to the Site is an intermittent stream, located approximately 0.61 miles southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

On June 2, 2020, LTE personnel visited the Site to evaluate the release extent. LTE personnel advanced one borehole (BH01) via hand-auger within the breached area identified by XTO during the liner inspection. Due to auger refusal, XTO authorized LTE to perform a liner incision approximately 2 feet from the tear to advance an additional borehole (BH02). Two soil samples were collected from the area associated with soil sample BH01 at approximately 0.5 foot bgs and 2 feet bgs and one in the area associated with soil sample BH02 at approximately 0.5 foot bgs. Soil from the boreholes were field screened for volatile aromatic hydrocarbons and chloride

utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each sample were documented on a lithologic/soil sampling log and are included as Attachment 2. The boreholes were backfilled with the soil removed and XTO personnel repaired the liner. The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0. Photographic documentation was conducted during the Site visit and are included in Attachment 3.

DELINEATION SOIL SAMPLING ACTIVITIES

On June 16, 2020 and June 17, 2020, LTE conducted additional delineation activities to further assess hydrocarbon impacts discovered in the subject release area as indicated by delineation soil sample laboratory results. Due to auger refusal encountered at 2 feet bgs and 0.5 foot bgs in locations associated with soil samples BH01 and BH02, respectively, LTE utilized a hammer drill to advance a third borehole inside the containment. For safety concerns and in compliance with a hot work permit, borehole BH03 was advanced in an area representative of the release footprint, but in less proximity to active aboveground equipment. The hammer drill was able to achieve a depth of approximately 3 feet bgs, reaching the maximum bit length.

Utilizing heavy equipment, six potholes (PH01 through PH06) were advanced outside of the containment to investigate lithology and confirm lateral delineation. Field screening was conducted for all delineation soil samples, at minimum, from every 1-foot interval for volatile aromatic hydrocarbons using a PID and chloride using Hach® chloride QuanTab® test strips. Three samples were collected from each pothole, including: the most impacted sample based on field screening results and the terminus of the pothole. Soil samples were collected, handled as previously described. Field screening results and observations for each borehole and pothole were logged on lithologic/soil sampling logs, which are included in Attachment 2. The locations of delineation boreholes and potholes are presented on Figure 2. Photographic documentation was conducted during remediation activities at the Site and is included in Attachment 3.

ANALYTICAL RESULTS

Per the Closure Criteria, soil samples BH01 through BH03 exceeded Closure Criteria for BTEX to at least 2 feet bgs, and TPH to at least 3 feet bgs. Benzene and chloride concentrations were below Closure Criteria. All constituents for soil samples collected from PH01 through PH06 were within the applicable Closure Criteria limits. Laboratory analytical results are summarized in Table 1. The complete laboratory analytical reports are included as Attachment 4.

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IN-SITU REMEDIATION

To aid in the bioremediation of hydrocarbons, a water truck was retained to lubricate and inject approximately 67 gallons of a 6 percent (%) dilution of Micro-Blaze™ amendment and freshwater beneath the steel containment liner until fluids were forced back to the injection source. The freshwater source was field screened prior to use and contained 215 mg/kg of chloride.

DEFERRAL REQUEST

Due to the presence of active production equipment within the release area and underlying bedrock, alternative methods to investigate vertical impacts and excavate impacted soil utilizing mechanical, manual, or non-destructive methods could not be conducted safely at this time. Therefore, XTO requests permission to continue the remediation of the discovered hydrocarbon impacts directly beneath the lined steel berm during any future major construction, final facility abandonment, or when the structure is removed, whichever occurs first. Although the vertical extent has not been established, the lateral extent is defined by samples collected from potholes surrounding the containment. Based on decreasing concentrations of BTEX and TPH with depth in BH03 and application of Micro-Blaze™ under the liner, LTE assumes that vertical impacts do not exceed 5 feet bgs and estimates the volume of remaining impacts to be approximately 796 cubic yards. In addition to XTO's regular inspections associated with its Spill Prevention, Control, and Countermeasure (SPCC) Program, XTO will periodically monitor the repaired liner associated with the subject area to ensure integrity and limit potential vertical migration of any remaining impacts. LTE and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. The remaining impacts are beneath a liner and groundwater is greater than 100 feet deep. As a result, XTO is submitting this Deferral Request and requesting NFA for Incident Number NRM2015454866 until the Site is reconstructed, and/or the well pad is abandoned.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Joseph S. Hernandez
Project Geologist

Ashley L. Ager, M.S., P.G.
Senior Geologist

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

Attachments:

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

FIGURES

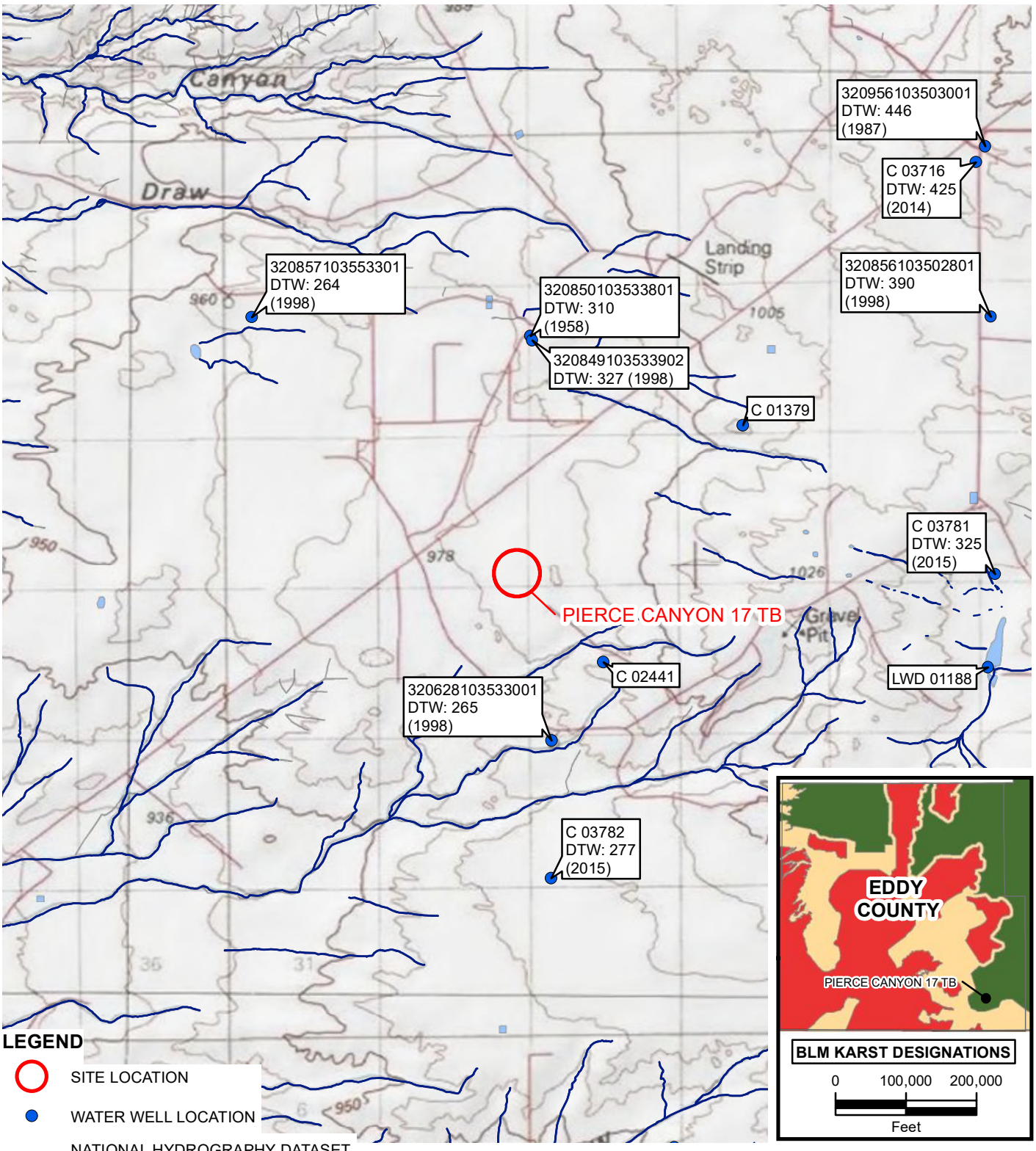

IMAGE COURTESY OF ESRI/USGS

LEGEND

- SITE LOCATION
- WATER WELL LOCATION
- NATIONAL HYDROGRAPHY DATASET SURFACE WATER FEATURE
- NATIONAL WETLANDS INVENTORY SURFACE WATER FEATURE
- LOW KARST
- MEDIUM KARST
- HIGH KARST

NOTE: INCIDENT NUMBER NRM2015454866
DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT

0 5,000 10,000
Feet

N

FIGURE 1
SITE LOCATION MAP
PIERCE CANYON 17 TB
UNIT P SEC 17 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920085_PIERCE CANYON 17 TB\012920085_FIG01_SL_RECEPTOR_2020.mxd

LEGEND

IMAGE COURTESY OF ESRI

- DELINEATION SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- RELEASE EXTENT

0 50 100
Feet

N

NOTE: INCIDENT NUMBER NRM2015454866
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 2
DELINEATION SOIL SAMPLE LOCATIONS
PIERCE CANYON 17 TB
UNIT P SEC 17 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920085_PIERCE CANYON 17 TB\012920085_FIG02_DELINEATION_2020.mxd

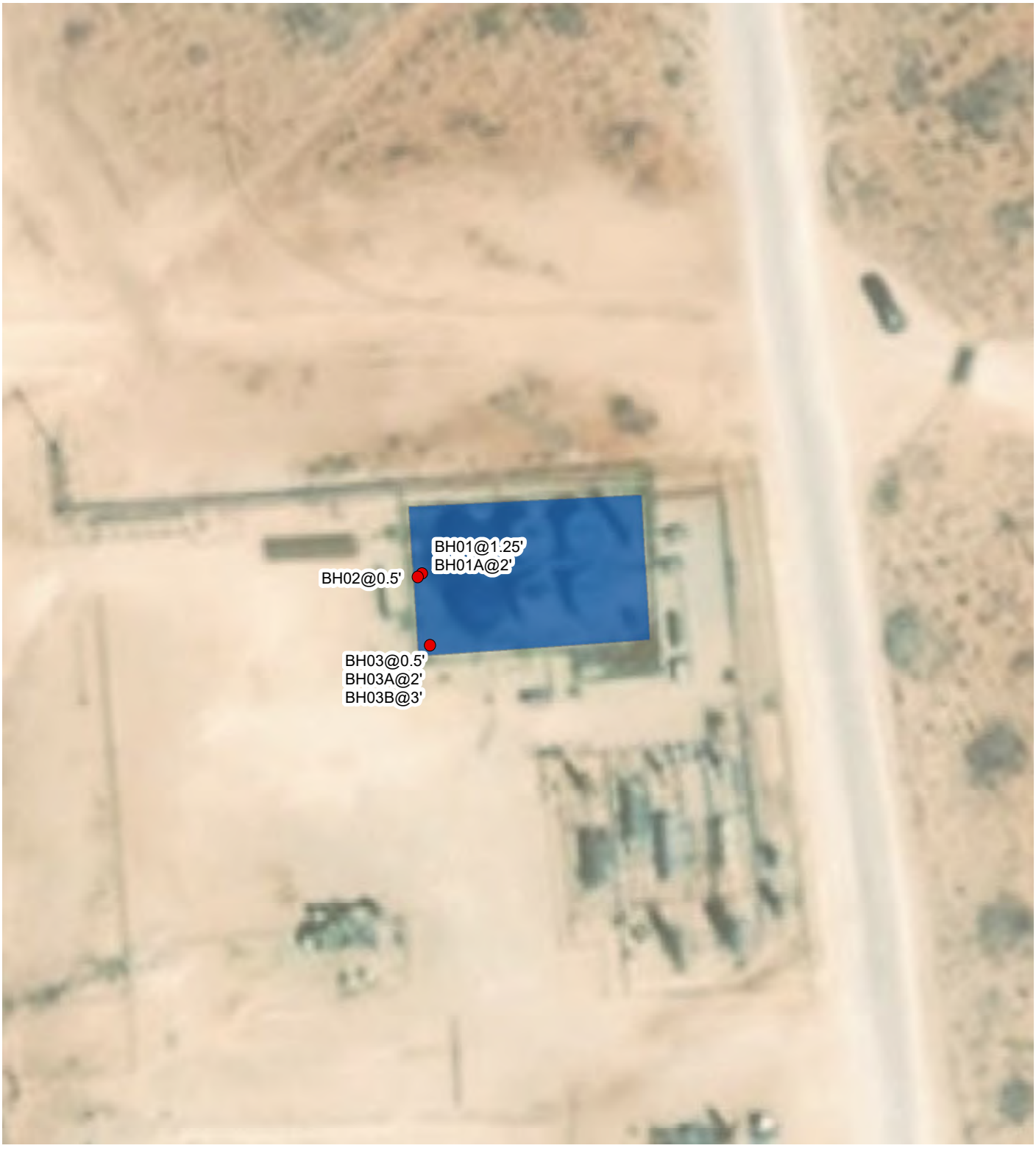

IMAGE COURTESY OF ESRI

LEGEND

- DELINEATION SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- DEFERRAL AREA

0 50 100
Feet

N

NOTE: INCIDENT NUMBER NRM2015454866
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
DEFERRAL AREA: 4,302 SQUARE FEET
DEFERRAL DEPTH: 5 FEET
DEFERRAL VOLUME: 796 CUBIC YARDS

FIGURE 3
DEFERRAL AREA
PIERCE CANYON 17 TB
UNIT P SEC 17 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920085_PIERCE CANYON 17 TB\012920085_FIG03_DEFERRAL_2020.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

PIERCE CANYON 17 TB
INCIDENT NUMBER NRM2015454866
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)	Application
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**	
BH01	1.25	06/02/2020	<0.0970	43.2	24.2	487	**555**	5,800	11,400	513	**17,200**	**17,700**	149	Treated
BH01A	2	06/02/2020	<0.241	45.9	22.1	292	**360**	11,200	19,900	924	**31,100**	**32,000**	286	Treated
BH02	0.5	06/02/2020	<0.101	37.8	17.7	287	**342**	3,180	7,150	368	**10,300**	**10,700**	126	Treated
BH03	0.5	07/16/2020	<0.0998	0.467	1.25	14.2	15.9	901	6,600	417	**7,500**	**7,920**	126	Treated
BH03A	2	07/16/2020	<0.0996	3.00	5.98	71.8	**80.8**	1,200	6,880	434	**8,080**	**8,510**	467	Treated
BH03B	3	07/17/2020	<0.00500	0.441	0.432	7.91	8.78	571	4,250	228	**4,820**	**5,050**	462	Treated
PH01	1	07/16/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	478	In-situ
PH01A	2	07/16/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	1,420	In-situ
PH01B	3	07/16/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	318	In-situ
PH02	1	07/16/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	67.3	In-situ
PH02A	2	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	156	In-situ
PH02B	3	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	177	In-situ
PH03	1	07/16/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	122	In-situ
PH03A	2	07/16/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	374	In-situ
PH03B	4	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	519	In-situ
PH04	1	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	26.1	In-situ
PH04A	2	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	27.0	In-situ
PH04B	3	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	32.3	In-situ
PH05	1	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	12.1	In-situ
PH05A	2	07/16/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	28.8	In-situ
PH05B	3	07/16/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	47.4	In-situ

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TABLE 1
SOIL ANALYTICAL RESULTS

PIERCE CANYON 17 TB
INCIDENT NUMBER NRM2015454866
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)	Application
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**	
PH06	1	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	14.5	In-situ
PH06A	2	07/16/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	50.3	In-situ
PH06B	3	07/16/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	37.9	In-situ

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

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ATTACHMENT 1: REFERENCED WELL RECORDS

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USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

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Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320628103533001

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 320628103533001 25S.30E.21.333424

Eddy County, New Mexico
Latitude 32°06'28", Longitude 103°53'30" NAD27
Land-surface elevation 3,207 feet above NAVD88
The depth of the well is 288 feet below land surface.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1958-08-21		D	233.00			2		U		U	A
1959-02-05		D	266.10			2	P	U		U	A
1983-02-01		D	259.88			2		U		U	A
1998-01-28		D	264.60			2		S		U	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Status	P	Site was being pumped.
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Page Contact Information: USGS Water Data Support Team
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0.31 0.29 nadww01

New Mexico Office of the State Engineer

Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	C 03782 POD1	4	3	3	28	25S	30E	604526	3551444

Driller License:	331	**Driller Company:**	SBQ2, LLC DBA STEWART BROTHERS DRILLING CO.		
Driller Name:					
Drill Start Date:	01/16/2015	**Drill Finish Date:**	01/17/2015	**Plug Date:**	
Log File Date:	02/19/2015	**PCW Rcv Date:**		**Source:**	Artesian
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	8.63	**Depth Well:**	805 feet	**Depth Water:**	277 feet

Water Bearing Stratifications:	Top	Bottom	Description
	260	320	Sandstone/Gravel/Conglomerate
	320	380	Sandstone/Gravel/Conglomerate
	380	410	Sandstone/Gravel/Conglomerate
	410	530	Shale/Mudstone/Siltstone
	530	590	Shale/Mudstone/Siltstone
	590	600	Shale/Mudstone/Siltstone
	600	630	Shale/Mudstone/Siltstone
	630	650	Shale/Mudstone/Siltstone
	650	700	Shale/Mudstone/Siltstone
	700	710	Shale/Mudstone/Siltstone
	710	760	Shale/Mudstone/Siltstone
	760	770	Shale/Mudstone/Siltstone
	770	780	Shale/Mudstone/Siltstone
	780	790	Shale/Mudstone/Siltstone
	790	805	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	270	805

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Agency code = usgs
site_no list =
- 320857103553301

Minimum number of levels = 1
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USGS 320857103553301 25S.30E.07.112331

Eddy County, New Mexico
Latitude 32°08'57", Longitude 103°55'33" NAD27
Land-surface elevation 3,169 feet above NAVD88
The depth of the well is 385 feet below land surface.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1959-02-05		D	263.63			2		U		U	A
1959-03-07		D	263.30			2		U		U	A
1987-10-20		D	264.25			2		U		U	A
1992-11-06		D	263			0		S		U	A
1998-01-28		D	264.12			2		V		U	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	0	Water level accuracy to nearest foot
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Method of measurement	V	Calibrated electric-tape measurement.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2020-08-04 15:40:33 EDT
0.3 0.28 nadww01

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 03781 POD1	3	3	3	13	25S	30E	609306	3554761

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)
(NAD83 UTM in meters)

Driller License:	331	**Driller Company:**	SBQ2, LLC DBA STEWART BROTHERS DRILLING CO.		
Driller Name:					
Drill Start Date:	01/08/2015	**Drill Finish Date:**	01/10/2015	**Plug Date:**	
Log File Date:	02/19/2015	**PCW Rcv Date:**		**Source:**	Artesian
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	8.63	**Depth Well:**	720 feet	**Depth Water:**	325 feet

Water Bearing Stratifications:	Top	Bottom	Description
	200	370	Sandstone/Gravel/Conglomerate
	370	390	Sandstone/Gravel/Conglomerate
	390	410	Sandstone/Gravel/Conglomerate
	410	440	Sandstone/Gravel/Conglomerate
	440	460	Shale/Mudstone/Siltstone
	460	470	Shale/Mudstone/Siltstone
	470	490	Shale/Mudstone/Siltstone
	490	500	Shale/Mudstone/Siltstone
	500	510	Sandstone/Gravel/Conglomerate
	510	530	Shale/Mudstone/Siltstone
	530	660	Shale/Mudstone/Siltstone
	660	690	Shale/Mudstone/Siltstone
	690	700	Shale/Mudstone/Siltstone
	700	720	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	340	720

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Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320849103533902

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 320849103533902 25S.30E.08.242221A

Eddy County, New Mexico
Latitude 32°08'49", Longitude 103°53'39" NAD27
Land-surface elevation 3,230 feet above NAVD88
The depth of the well is 500 feet below land surface.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1961-06-14		D	331.55			2	P	U		U	A
1998-01-28		D	326.53			2		S		U	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Status	P	Site was being pumped.
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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0.3 0.28 nadww01

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Agency code = usgs
site_no list =
- 320856103502801

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 320856103502801 25S.30E.12.113211

Eddy County, New Mexico
Latitude 32°08'56", Longitude 103°50'28" NAD27
Land-surface elevation 3,371 feet above NAVD88
The depth of the well is 482 feet below land surface.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1959-03-25		D	391.30			2		U		U	A
1983-01-31		D	390.30			2		U		U	A
1987-10-20		D	390.41			2		U		U	A
1992-11-06		D	390.41			2		S		U	A
1998-01-28		D	390.08			2		S		U	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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

ATTACHMENT 2: LITHOLOGIC/SOIL SAMPLING LOGS

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BH or PH Name: BH01		Date: 06/02/2020	
Site Name: PLU Pierce Canyon 17 Fed			
RP or Incident Number:			
LTE Job Number: 012920085			
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Robert M	Method: Hand Auger	
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter: 3"	Total Depth: 2'
Comments:			

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	280	6,600	N		1.25'	1	S	SP-SC dark Brown non-plastic
M	220	6300	N		2'	2	S	SP-SC dark Brown non-plastic
						3		Very consolidated
						4		Caliché layer at 2'
						5		
						6		Refusal
						7		
						8		RM
						9		
						10		
						11		
						12		

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BH or PH Name: BH02	Date: 06/02/2020
Site Name: PLU Pierce Canyon 17	
RP or Incident Number:	
LTE Job Number: 012920085	
Logged By: Robert M	Method: Hand Auger
Lat/Long:	Field Screening: Chloride, PID
Hole Diameter: 3"	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<124	5,600	N		0.5	0–12	S	SP-SC/CHCE Brown/tan very consolidated caliche layer at 1' Refusal RM

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BH or PH Name: BH03	Date: 7/16 - 7/17/2020
Site Name: PLU PC 17 TB	
RP or Incident Number: NRM2015454866	
LTE Job Number: 012920085	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: HVAC and Hammer Drill		
Lat/Long: 32.12424, -103.89604	Field Screening: Hatch chloride strips, PID	Hole Diameter:	Total Depth: 3'

Comments: All chloride screenings include a 40% correction factor
SAA: Same as above

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	SAND, dry, tan-light brown, poorly graded, fine-very fine, abundant caliche gravel, tan-off white, poorly consolidated
M	436	1,042	Y	BH03	0.5'	0.5		SAA
D	436	1,530	N			1	SM	SILTY sand, dry, light brown-brown, cohesive, low plasticity
D	436	883.5	N	BH03A	2'	2	CCHE	CALICHE, dry, tan-off white, well consolidated
D	868	1,204	N	BH03B	3'	3		SAA
								Total depth 3 feet bgs

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BH or PH Name: PH01	Date: 7/16/2020
Site Name: PLU PC 17 TB	
RP or Incident Number: NRM2015454866	
LTE Job Number: 012920085	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: Backhoe		
Lat/Long: 32.12424, -103.89604	Field Screening: Hatch chloride strips, PID	Hole Diameter:	Total Depth: 3'

Comments: All chloride screenings include a 40% correction factor
SAA: Same as above

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	SAND, dry, tan-light brown, poorly graded, fine-very fine, abundant caliche gravel, tan-off white, poorly consolidated
D	554	0.5	N	PH01	1'	1		SAA
D	1,428	0.1	N	PH01A	2'	2	SM	SILTY sand, dry, reddish brown, noncohesive, no plasticity
D	375	0.0	N	PH01B	3'	3	CCHE	CALICHE, dry, tan-off white, well consolidated
								Total depth 3 feet bgs

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BH or PH Name: PH02	Date: 7/16/2020
Site Name: PLU PC 17 TB	
RP or Incident Number: NRM2015454866	
LTE Job Number: 012920085	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: Backhoe		
Lat/Long: 32.12424, -103.89604	Field Screening: Hatch chloride strips, PID	Hole Diameter:	Total Depth: 3'

Comments: All chloride screenings include a 40% correction factor
SAA: Same as above

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SM	SILTY sand, dry, brown-reddish brown, noncohesive, no plasticity, some caliche gravel, off white, poorly consolidated
D	229	0.1	N	PH02	1'	1		SAA
D	324	0.1	N	PH02A	2'	2	CCHE	CALICHE, dry, tan-off white, well consolidated
D	341	0.1	N	PH02B	3'	3		SAA
								Total depth 3 feet bgs

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BH or PH Name:	Date:
PH03	7/16/2020
Site Name: PLU PC 17 TB	
RP or Incident Number: NRM2015454866	
LTE Job Number: 012920085	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: Backhoe
Hole Diameter:	Total Depth: 4'

Lat/Long: 32.12424, -103.89604
Field Screening: Hatch chloride strips, PID

Comments: All chloride screenings include a 40% correction factor
SAA: Same as above

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	SAND, dry, light brown-brown, poorly graded, abundant caliche gravel, tan-off white, poorly consolidated
D	274	0.6	N	PH03	1'	1		SAA
D	436	0.1	N	PH03A	2'	2	CCHE	CALICHE, dry, tan-off white, well consolidated
D	828	0.2				3		SAA
D	554	0.1	N	PH03B	4'	4		SAA
								Total depth 4 feet bgs

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BH or PH Name: PH04	Date: 7/16/2020
Site Name: PLU PC 17 TB	
RP or Incident Number: NRM2015454866	
LTE Job Number: 012920085	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: Backhoe		
Lat/Long: 32.12424, -103.89604	Field Screening: Hatch chloride strips, PID	Hole Diameter:	Total Depth: 3'

Comments: All chloride screenings include a 40% correction factor
SAA: Same as above

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	SAND, dry, brown-reddish brown, poorly graded, trace silty sand, non-cohesive, no plasticity
D	156	0.3	N	PH04	1'	1		SAA
D	156	0.1	N	PH04A	2'	2	CCHE	CALICHE, dry, tan-off white, well consolidated
D	184	0.1	N	PH04B	3'	3		SAA
								Total depth 3 feet bgs

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BH or PH Name: PH05	Date: 7/16/2020
Site Name: PLU PC 17 TB	
RP or Incident Number: NRM2015454866	
LTE Job Number: 012920085	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: Backhoe		
Lat/Long: 32.12424, -103.89604	Field Screening: Hatch chloride strips, PID	Hole Diameter:	Total Depth: 3'

Comments: All chloride screenings include a 40% correction factor
SAA: Same as above

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	SAND, dry, brown-reddish brown, poorly graded, trace silty sand, non-cohesive, no plasticity
D	184	12.2	N	PH05	1'	1		SAA
D	184	1.8	N	PH05A	2'	2		SAA
D	184	0.2	N	PH05B	3'	3	CCHE	CALICHE, dry, tan-off white, well consolidated
								Total depth 3 feet bgs

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BH or PH Name: PH06	Date: 7/16/2020
Site Name: PLU PC 17 TB	
RP or Incident Number: NRM2015454866	
LTE Job Number: 012920085	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: Backhoe		
Lat/Long: 32.12424, -103.89604	Field Screening: Hatch chloride strips, PID	Hole Diameter:	Total Depth: 3'

Comments: All chloride screenings include a 40% correction factor
SAA: Same as above

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	SAND, dry, brown-reddish brown, poorly graded, trace silty sand, non-cohesive, no plasticity
D	184	14.2	N	PH06	1'	1		SAA
D	224	0.1	N	PH06A	2'	2	CCHE	CALICHE, dry, tan-off white, well consolidated
D	296	0.1	N	PH06B	3'	3		SAA
								Total depth 3 feet bgs

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: View of the breached area within the subject release area following recovery of produced water within containment.

Photograph 2: View of subject release area facing northeast.

Photograph 3: Utilizing a hammer drill in an effort to advance through formation material within the lined steel berm (BH03).

PHOTOGRAPHIC LOG

Photograph 4: View of formation material within the lined steel berm.

Photograph 5: Injecting Microblaze beneath liner incision prior to repair.

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

Certificate of Analysis Summary 663489

LT Environmental, Inc., Arvada, CO

Project Name: PLU Pierce Canyon 17 Fed

Project Id: 012920085
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 06.04.2020 13:22
Report Date: 06.08.2020 10:39
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	663489-001		663489-002					
	Field Id:	BH01		BH01A					
	Depth:	1.25- ft		2- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	06.02.2020 10:48		06.02.2020 10:54					
BTEX by EPA 8021B	***Extracted:***	06.04.2020 14:30		06.04.2020 14:30					
	Analyzed:	06.04.2020 19:22		06.05.2020 10:34					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.0970	0.0970	<0.241	0.241				
Toluene		43.2	0.404	45.9	1.00				
Ethylbenzene		24.2	0.404	22.1	1.00				
m,p-Xylenes		422 D	4.04	226	2.01				
o-Xylene		65.4	0.404	65.9	1.00				
Total Xylenes		487	0.404	292	1.00				
Total BTEX		555	0.0970	360	0.241				
Chloride by EPA 300	***Extracted:***	06.04.2020 17:00		06.04.2020 17:00					
	Analyzed:	06.04.2020 18:41		06.04.2020 18:48					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		149	10.1	286	10.0				
TPH by SW8015 Mod	***Extracted:***	06.04.2020 15:30		06.04.2020 15:30					
	Analyzed:	06.05.2020 13:19		06.05.2020 13:40					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		5800	251	11200	251				
Diesel Range Organics (DRO)		11400	251	19900	251				
Motor Oil Range Hydrocarbons (MRO)		513	251	924	251				
Total GRO-DRO		17200	251	31100	251				
Total TPH		17700	251	32000	251				

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

Jessica Kramer
Project Manager

Analytical Report 663489

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU Pierce Canyon 17 Fed

012920085

06.08.2020

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

06.08.2020

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **663489**
PLU Pierce Canyon 17 Fed
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) 663489. 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. 663489 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,

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 663489

LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	06.02.2020 10:48	1.25 ft	663489-001
BH01A	S	06.02.2020 10:54	2 ft	663489-002

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU Pierce Canyon 17 Fed

Project ID: *012920085*
Work Order Number(s): *663489*

Report Date: *06.08.2020*
Date Received: *06.04.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 663489

LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	06.04.2020 13:22
Lab Sample Id:	663489-001	Date Collected:	06.02.2020 10:48	Sample Depth:	1.25 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.04.2020 17:00	Basis:	Wet Weight
Seq Number:	3128048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**149**	10.1	mg/kg	06.04.2020 18:41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.04.2020 15:30	Basis:	Wet Weight
Seq Number:	3128108				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**5800**	251	mg/kg	06.05.2020 13:19		5
Diesel Range Organics (DRO)	C10C28DRO	**11400**	251	mg/kg	06.05.2020 13:19		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**513**	251	mg/kg	06.05.2020 13:19		5
Total GRO-DRO	PHC628	**17200**	251	mg/kg	06.05.2020 13:19		5
Total TPH	PHC635	**17700**	251	mg/kg	06.05.2020 13:19		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	06.05.2020 13:19	
o-Terphenyl	84-15-1	126	%	70-135	06.05.2020 13:19	

Certificate of Analytical Results 663489

LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	06.04.2020 13:22
Lab Sample Id:	663489-001	Date Collected:	06.02.2020 10:48	Sample Depth:	1.25 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.04.2020 14:30	Basis:	Wet Weight
Seq Number:	3128056				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0970	0.0970	mg/kg	06.04.2020 19:22	U	200
Toluene	108-88-3	**43.2**	0.404	mg/kg	06.04.2020 19:22		200
Ethylbenzene	100-41-4	**24.2**	0.404	mg/kg	06.04.2020 19:22		200
m,p-Xylenes	179601-23-1	**422**	4.04	mg/kg	06.05.2020 11:15	D	1000
o-Xylene	95-47-6	**65.4**	0.404	mg/kg	06.04.2020 19:22		200
Total Xylenes	1330-20-7	**487**	0.404	mg/kg	06.05.2020 11:15		1000
Total BTEX		**555**	0.0970	mg/kg	06.05.2020 11:15		1000

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	06.04.2020 19:22	
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.04.2020 19:22	

Certificate of Analytical Results 663489

LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	06.04.2020 13:22
Lab Sample Id:	663489-002	Date Collected:	06.02.2020 10:54	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.04.2020 17:00	Basis:	Wet Weight
Seq Number:	3128048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**286**	10.0	mg/kg	06.04.2020 18:48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.04.2020 15:30	Basis:	Wet Weight
Seq Number:	3128108				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**11200**	251	mg/kg	06.05.2020 13:40		5
Diesel Range Organics (DRO)	C10C28DRO	**19900**	251	mg/kg	06.05.2020 13:40		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**924**	251	mg/kg	06.05.2020 13:40		5
Total GRO-DRO	PHC628	**31100**	251	mg/kg	06.05.2020 13:40		5
Total TPH	PHC635	**32000**	251	mg/kg	06.05.2020 13:40		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	06.05.2020 13:40	
o-Terphenyl	84-15-1	108	%	70-135	06.05.2020 13:40	

Certificate of Analytical Results 663489

LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Sample Id:	**BH01A**	Matrix:	Soil	Date Received:	06.04.2020 13:22
Lab Sample Id:	663489-002	Date Collected:	06.02.2020 10:54	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.04.2020 14:30	Basis:	Wet Weight
Seq Number:	3128056				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.241	0.241	mg/kg	06.05.2020 10:34	U	500
Toluene	108-88-3	**45.9**	1.00	mg/kg	06.05.2020 10:34		500
Ethylbenzene	100-41-4	**22.1**	1.00	mg/kg	06.05.2020 10:34		500
m,p-Xylenes	179601-23-1	**226**	2.01	mg/kg	06.05.2020 10:34		500
o-Xylene	95-47-6	**65.9**	1.00	mg/kg	06.05.2020 10:34		500
Total Xylenes	1330-20-7	**292**	1.00	mg/kg	06.05.2020 10:34		500
Total BTEX		**360**	0.241	mg/kg	06.05.2020 10:34		500

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	06.05.2020 10:34	
4-Bromofluorobenzene	460-00-4	111	%	70-130	06.05.2020 10:34	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 663489

LT Environmental, Inc.

PLU Pierce Canyon 17 Fed

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3128048 — Matrix: Solid — Date Prep: 06.04.2020
MB Sample Id: 7704822-1-BLK — LCS Sample Id: 7704822-1-BKS — LCSD Sample Id: 7704822-1-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	252	101	90-110	0	20	mg/kg	06.04.2020 18:06	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3128048 — Matrix: Soil — Date Prep: 06.04.2020
Parent Sample Id: 663487-001 — MS Sample Id: 663487-001 S — MSD Sample Id: 663487-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	126	200	319	97	319	97	90-110	0	20	mg/kg	06.04.2020 18:27	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3128048 — Matrix: Soil — Date Prep: 06.04.2020
Parent Sample Id: 663532-006 — MS Sample Id: 663532-006 S — MSD Sample Id: 663532-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	108	199	294	93	292	93	90-110	1	20	mg/kg	06.04.2020 20:26	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3128108 — Matrix: Solid — Date Prep: 06.04.2020
MB Sample Id: 7704860-1-BLK — LCS Sample Id: 7704860-1-BKS — LCSD Sample Id: 7704860-1-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	992	99	1020	102	70-135	3	35	mg/kg	06.04.2020 17:22	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	1100	110	70-135	3	35	mg/kg	06.04.2020 17:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		118		122		70-135	%	06.04.2020 17:22
o-Terphenyl	96		106		111		70-135	%	06.04.2020 17:22

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3128108 — Matrix: Solid — Date Prep: 06.04.2020
MB Sample Id: 7704860-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.04.2020 13:52	

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

QC Summary 663489

LT Environmental, Inc.

PLU Pierce Canyon 17 Fed

Analytical Method: TPH by SW8015 Mod | Prep Method: SW8015P
Seq Number: 3128108 | Matrix: Soil | Date Prep: 06.04.2020
Parent Sample Id: 663490-001 | MS Sample Id: 663490-001 S | MSD Sample Id: 663490-001 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	1260	126	1300	130	70-135	3	35	mg/kg	06.05.2020 10:14	
Diesel Range Organics (DRO)	<50.2	1000	1150	115	1190	119	70-135	3	35	mg/kg	06.05.2020 10:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	130		126		70-135	%	06.05.2020 10:14
o-Terphenyl	117		123		70-135	%	06.05.2020 10:14

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5035A
Seq Number: 3128056 | Matrix: Solid | Date Prep: 06.04.2020
MB Sample Id: 7704782-1-BLK | LCS Sample Id: 7704782-1-BKS | LCSD Sample Id: 7704782-1-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	0.111	111	0.119	119	70-130	7	35	mg/kg	06.04.2020 15:17	
Toluene	<0.00200	0.100	0.104	104	0.113	113	70-130	8	35	mg/kg	06.04.2020 15:17	
Ethylbenzene	<0.00200	0.100	0.0981	98	0.105	105	71-129	7	35	mg/kg	06.04.2020 15:17	
m,p-Xylenes	<0.00400	0.200	0.198	99	0.217	109	70-135	9	35	mg/kg	06.04.2020 15:17	
o-Xylene	<0.00200	0.100	0.102	102	0.109	109	71-133	7	35	mg/kg	06.04.2020 15:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		106		106		70-130	%	06.04.2020 15:17
4-Bromofluorobenzene	94		89		90		70-130	%	06.04.2020 15:17

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5035A
Seq Number: 3128056 | Matrix: Soil | Date Prep: 06.04.2020
Parent Sample Id: 663406-002 | MS Sample Id: 663406-002 S | MSD Sample Id: 663406-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.120	120	0.128	128	70-130	6	35	mg/kg	06.04.2020 15:58	
Toluene	<0.00200	0.0998	0.113	113	0.121	121	70-130	7	35	mg/kg	06.04.2020 15:58	
Ethylbenzene	<0.00200	0.0998	0.106	106	0.114	114	71-129	7	35	mg/kg	06.04.2020 15:58	
m,p-Xylenes	<0.00399	0.200	0.214	107	0.231	115	70-135	8	35	mg/kg	06.04.2020 15:58	
o-Xylene	<0.00200	0.0998	0.107	107	0.116	116	71-133	8	35	mg/kg	06.04.2020 15:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		70-130	%	06.04.2020 15:58
4-Bromofluorobenzene	91		95		70-130	%	06.04.2020 15:58

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

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

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

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 663489

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 701-2610	Email:	dmoir@ltenv.com rmcafee@ltenv.com

Work Order Comments

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

Project Name:	PLU Pierce Canyon 17 Fed	Turn Around	
Project Number:	012920085	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	2.2	Thermometer ID	TNM007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	2	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
BH01	S	06/02/20	1048	1.25'	1	X	X	X
BH01A	S	06/02/20	1054	2'	1	X	X	X

Work Order Notes

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

Sample Comments

BH01: discrete
BH01A: discrete

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 Tl 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 Tl 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	Robb Mayfield		6/4/20 13:22	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 06.04.2020 01.22.00 PM

Work Order #: 663489

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)?	2.2	
#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**	Samples received in bulk containers.
#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: 06.04.2020

Checklist reviewed by: Jessica Kramer Date: 06.08.2020

Jessica Kramer

Certificate of Analysis Summary 663487

LT Environmental, Inc., Arvada, CO

Project Name: PLU Pierce Canyon 17 Fed

Project Id: 012920085
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 06.04.2020 13:22
Report Date: 06.08.2020 10:39
Project Manager: Jessica Kramer

Analysis Requested								
	Lab Id:	663487-001						
	Field Id:	BH02						
	Depth:	0.5- ft						
	Matrix:	SOIL						
	Sampled:	06.02.2020 12:20						
BTEX by EPA 8021B	***Extracted:***	06.04.2020 14:30						
	Analyzed:	06.04.2020 19:01						
	Units/RL:	mg/kg	RL					
Benzene		<0.101	0.101					
Toluene		37.8	0.404					
Ethylbenzene		17.7	0.404					
m,p-Xylenes		230 D	4.04					
o-Xylene		56.6	0.404					
Total Xylenes		287	0.404					
Total BTEX		342	0.101					
Chloride by EPA 300	***Extracted:***	06.04.2020 17:00						
	Analyzed:	06.04.2020 18:20						
	Units/RL:	mg/kg	RL					
Chloride		126	9.98					
TPH by SW8015 Mod	***Extracted:***	06.04.2020 14:30						
	Analyzed:	06.05.2020 14:00						
	Units/RL:	mg/kg	RL					
Gasoline Range Hydrocarbons (GRO)		3180	251					
Diesel Range Organics (DRO)		7150	251					
Motor Oil Range Hydrocarbons (MRO)		368	251					
Total GRO-DRO		10300	251					
Total TPH		10700	251					

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

Jessica Kramer
Project Manager

Analytical Report 663487

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU Pierce Canyon 17 Fed

012920085

06.08.2020

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

06.08.2020

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: XENCO Report No(s): **663487**
PLU Pierce Canyon 17 Fed
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) 663487. 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. 663487 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,

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 663487

LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH02	S	06.02.2020 12:20	0.5 ft	663487-001

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU Pierce Canyon 17 Fed

Project ID: *012920085*
Work Order Number(s): *663487*

Report Date: *06.08.2020*
Date Received: *06.04.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 663487

LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	06.04.2020 13:22
Lab Sample Id:	663487-001	Date Collected:	06.02.2020 12:20	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.04.2020 17:00	Basis:	Wet Weight
Seq Number:	3128048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**126**	9.98	mg/kg	06.04.2020 18:20		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	06.04.2020 14:30	Basis:	Wet Weight
Seq Number:	3128108				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**3180**	251	mg/kg	06.05.2020 14:00		5
Diesel Range Organics (DRO)	C10C28DRO	**7150**	251	mg/kg	06.05.2020 14:00		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**368**	251	mg/kg	06.05.2020 14:00		5
Total GRO-DRO	PHC628	**10300**	251	mg/kg	06.05.2020 14:00		5
Total TPH	PHC635	**10700**	251	mg/kg	06.05.2020 14:00		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	06.05.2020 14:00	
o-Terphenyl	84-15-1	111	%	70-135	06.05.2020 14:00	

Certificate of Analytical Results 663487

LT Environmental, Inc., Arvada, CO

PLU Pierce Canyon 17 Fed

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	06.04.2020 13:22
Lab Sample Id:	663487-001	Date Collected:	06.02.2020 12:20	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	06.04.2020 14:30	Basis:	Wet Weight
Seq Number:	3128056				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.101	0.101	mg/kg	06.04.2020 19:01	U	200
Toluene	108-88-3	**37.8**	0.404	mg/kg	06.04.2020 19:01		200
Ethylbenzene	100-41-4	**17.7**	0.404	mg/kg	06.04.2020 19:01		200
m,p-Xylenes	179601-23-1	**230**	4.04	mg/kg	06.05.2020 10:54	D	1000
o-Xylene	95-47-6	**56.6**	0.404	mg/kg	06.04.2020 19:01		200
Total Xylenes	1330-20-7	**287**	0.404	mg/kg	06.05.2020 10:54		1000
Total BTEX		**342**	0.101	mg/kg	06.05.2020 10:54		1000

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	06.04.2020 19:01	
4-Bromofluorobenzene	460-00-4	103	%	70-130	06.04.2020 19:01	

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

QC Summary 663487

LT Environmental, Inc.

PLU Pierce Canyon 17 Fed

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3128048 — Matrix: Solid — Date Prep: 06.04.2020
MB Sample Id: 7704822-1-BLK — LCS Sample Id: 7704822-1-BKS — LCSD Sample Id: 7704822-1-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	252	101	90-110	0	20	mg/kg	06.04.2020 18:06	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3128048 — Matrix: Soil — Date Prep: 06.04.2020
Parent Sample Id: 663487-001 — MS Sample Id: 663487-001 S — MSD Sample Id: 663487-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	126	200	319	97	319	97	90-110	0	20	mg/kg	06.04.2020 18:27	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3128048 — Matrix: Soil — Date Prep: 06.04.2020
Parent Sample Id: 663532-006 — MS Sample Id: 663532-006 S — MSD Sample Id: 663532-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	108	199	294	93	292	93	90-110	1	20	mg/kg	06.04.2020 20:26	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3128108 — Matrix: Solid — Date Prep: 06.04.2020
MB Sample Id: 7704860-1-BLK — LCS Sample Id: 7704860-1-BKS — LCSD Sample Id: 7704860-1-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	992	99	1020	102	70-135	3	35	mg/kg	06.04.2020 17:22	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	1100	110	70-135	3	35	mg/kg	06.04.2020 17:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		118		122		70-135	%	06.04.2020 17:22
o-Terphenyl	96		106		111		70-135	%	06.04.2020 17:22

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3128108 — Matrix: Solid — Date Prep: 06.04.2020
MB Sample Id: 7704860-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.04.2020 13:52	

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

QC Summary 663487

LT Environmental, Inc.

PLU Pierce Canyon 17 Fed

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3128108 — Matrix: Soil — Date Prep: 06.04.2020
Parent Sample Id: 663490-001 — MS Sample Id: 663490-001 S — MSD Sample Id: 663490-001 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	1260	126	1300	130	70-135	3	35	mg/kg	06.05.2020 10:14	
Diesel Range Organics (DRO)	<50.2	1000	1150	115	1190	119	70-135	3	35	mg/kg	06.05.2020 10:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	130		126		70-135	%	06.05.2020 10:14
o-Terphenyl	117		123		70-135	%	06.05.2020 10:14

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3128056 — Matrix: Solid — Date Prep: 06.04.2020
MB Sample Id: 7704782-1-BLK — LCS Sample Id: 7704782-1-BKS — LCSD Sample Id: 7704782-1-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	0.111	111	0.119	119	70-130	7	35	mg/kg	06.04.2020 15:17	
Toluene	<0.00200	0.100	0.104	104	0.113	113	70-130	8	35	mg/kg	06.04.2020 15:17	
Ethylbenzene	<0.00200	0.100	0.0981	98	0.105	105	71-129	7	35	mg/kg	06.04.2020 15:17	
m,p-Xylenes	<0.00400	0.200	0.198	99	0.217	109	70-135	9	35	mg/kg	06.04.2020 15:17	
o-Xylene	<0.00200	0.100	0.102	102	0.109	109	71-133	7	35	mg/kg	06.04.2020 15:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		106		106		70-130	%	06.04.2020 15:17
4-Bromofluorobenzene	94		89		90		70-130	%	06.04.2020 15:17

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3128056 — Matrix: Soil — Date Prep: 06.04.2020
Parent Sample Id: 663406-002 — MS Sample Id: 663406-002 S — MSD Sample Id: 663406-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.120	120	0.128	128	70-130	6	35	mg/kg	06.04.2020 15:58	
Toluene	<0.00200	0.0998	0.113	113	0.121	121	70-130	7	35	mg/kg	06.04.2020 15:58	
Ethylbenzene	<0.00200	0.0998	0.106	106	0.114	114	71-129	7	35	mg/kg	06.04.2020 15:58	
m,p-Xylenes	<0.00399	0.200	0.214	107	0.231	115	70-135	8	35	mg/kg	06.04.2020 15:58	
o-Xylene	<0.00200	0.0998	0.107	107	0.116	116	71-133	8	35	mg/kg	06.04.2020 15:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		70-130	%	06.04.2020 15:58
4-Bromofluorobenzene	91		95		70-130	%	06.04.2020 15:58

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

Chain of Custody

Work Order No: 1613487

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

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 St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 701-2610 Email:		dmoir@ltenv.com rmcafee@ltenv.com

Work Order Comments

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

Project Name:	PLU Pierce Canyon 17 Fed	Turn Around	
Project Number:	012920085	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes / No	Wet Ice:	Yes / No
Temperature (°C):	2-2	Thermometer ID	TNN007
Received Intact:	Yes / No		
Cooler Custody Seals:	Yes / No / N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes / No / N/A	Total Containers:	1

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
BH02	S	06/02/20	1220	0.5'	1	X	X	X	discrete

ANALYSIS REQUEST

Work Order Notes

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

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 Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Robert McAfee		6/4/20 13:22	2		
			4		
			6		

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 06.04.2020 01.22.00 PM

Work Order #: 663487

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)?	2.2	
#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**	Sample received in bulk container.
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**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: 06.04.2020

Checklist reviewed by: Jessica Kramer Date: 06.08.2020

Jessica Kramer

eurofins | Xenco

Certificate of Analysis Summary 667503

LT Environmental, Inc., Arvada, CO

Project Name: PLU PC 17 TB

Project Id: 012920085
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Thu 07.16.2020 17:25
Report Date: 07.17.2020 19:13
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	667503-001		667503-002					
	Field Id:	BH03		BH03A					
	Depth:	0.5- ft		2- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	07.16.2020 09:23		07.16.2020 09:37					
BTEX by EPA 8021B	***Extracted:***	07.17.2020 10:42		07.17.2020 10:42					
	Analyzed:	07.17.2020 15:58		07.17.2020 16:20					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.0998	0.0998	<0.0996	0.0996				
Toluene		0.467	0.399	3.00	0.398				
Ethylbenzene		1.25	0.399	5.98	0.398				
m,p-Xylenes		8.95	0.798	56.1	0.797				
o-Xylene		5.22	0.399	15.7	0.398				
Total Xylenes		14.2	0.399	71.8	0.398				
Total BTEX		15.9	0.0998	80.8	0.0996				
Chloride by EPA 300	***Extracted:***	07.17.2020 13:00		07.17.2020 13:00					
	Analyzed:	07.17.2020 14:57		07.17.2020 15:14					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		126	9.94	467	10.1				
TPH by SW8015 Mod	***Extracted:***	07.17.2020 14:30		07.17.2020 14:30					
	Analyzed:	07.17.2020 16:40		07.17.2020 16:40					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		901	249	1200	249				
Diesel Range Organics (DRO)		6600	249	6880	249				
Motor Oil Range Hydrocarbons (MRO)		417	249	434	249				
Total GRO-DRO		7500	249	8080	249				
Total TPH		7920	249	8510	249				

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 667503

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU PC 17 TB

012920085

07.17.2020

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: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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07.17.2020

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **667503**
PLU PC 17 TB
Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 667503. 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. 667503 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

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 667503

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH03	S	07.16.2020 09:23	0.5 ft	667503-001
BH03A	S	07.16.2020 09:37	2 ft	667503-002

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU PC 17 TB

Project ID: *012920085*
Work Order Number(s): *667503*

Report Date: *07.17.2020*
Date Received: *07.16.2020*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 667503

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	07.16.2020 17:25
Lab Sample Id:	667503-001	Date Collected:	07.16.2020 09:23	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.17.2020 13:00	Basis:	Wet Weight
Seq Number:	3132011				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**126**	9.94	mg/kg	07.17.2020 14:57		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.17.2020 14:30	Basis:	Wet Weight
Seq Number:	3132010				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**901**	249	mg/kg	07.17.2020 16:40		5
Diesel Range Organics (DRO)	C10C28DRO	**6600**	249	mg/kg	07.17.2020 16:40		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**417**	249	mg/kg	07.17.2020 16:40		5
Total GRO-DRO	PHC628	**7500**	249	mg/kg	07.17.2020 16:40		5
Total TPH	PHC635	**7920**	249	mg/kg	07.17.2020 16:40		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	135	%	70-135	07.17.2020 16:40	
o-Terphenyl	84-15-1	105	%	70-135	07.17.2020 16:40	

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Certificate of Analytical Results 667503

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	07.16.2020 17:25
Lab Sample Id:	667503-001	Date Collected:	07.16.2020 09:23	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.17.2020 10:42	Basis:	Wet Weight
Seq Number:	3132013				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0998	0.0998	mg/kg	07.17.2020 15:58	U	200
Toluene	108-88-3	**0.467**	0.399	mg/kg	07.17.2020 15:58		200
Ethylbenzene	100-41-4	**1.25**	0.399	mg/kg	07.17.2020 15:58		200
m,p-Xylenes	179601-23-1	**8.95**	0.798	mg/kg	07.17.2020 15:58		200
o-Xylene	95-47-6	**5.22**	0.399	mg/kg	07.17.2020 15:58		200
Total Xylenes	1330-20-7	**14.2**	0.399	mg/kg	07.17.2020 15:58		200
Total BTEX		**15.9**	0.0998	mg/kg	07.17.2020 15:58		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	07.17.2020 15:58	
4-Bromofluorobenzene	460-00-4	105	%	70-130	07.17.2020 15:58	

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Certificate of Analytical Results 667503

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id: **BH03A** Matrix: Soil Date Received:07.16.2020 17:25

Lab Sample Id: 667503-002 Date Collected: 07.16.2020 09:37 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB % Moisture:

Analyst: MAB Date Prep: 07.17.2020 13:00 Basis: Wet Weight

Seq Number: 3132011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**467**	10.1	mg/kg	07.17.2020 15:14		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DTH % Moisture:

Analyst: DTH Date Prep: 07.17.2020 14:30 Basis: Wet Weight

Seq Number: 3132010

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**1200**	249	mg/kg	07.17.2020 16:40		5
Diesel Range Organics (DRO)	C10C28DRO	**6880**	249	mg/kg	07.17.2020 16:40		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**434**	249	mg/kg	07.17.2020 16:40		5
Total GRO-DRO	PHC628	**8080**	249	mg/kg	07.17.2020 16:40		5
Total TPH	PHC635	**8510**	249	mg/kg	07.17.2020 16:40		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	132	%	70-135	07.17.2020 16:40	
o-Terphenyl	84-15-1	103	%	70-135	07.17.2020 16:40	

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Certificate of Analytical Results 667503

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	07.16.2020 17:25
Lab Sample Id:	667503-002	Date Collected:	07.16.2020 09:37	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.17.2020 10:42	Basis:	Wet Weight
Seq Number:	3132013				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0996	0.0996	mg/kg	07.17.2020 16:20	U	200
Toluene	108-88-3	**3.00**	0.398	mg/kg	07.17.2020 16:20		200
Ethylbenzene	100-41-4	**5.98**	0.398	mg/kg	07.17.2020 16:20		200
m,p-Xylenes	179601-23-1	**56.1**	0.797	mg/kg	07.17.2020 16:20		200
o-Xylene	95-47-6	**15.7**	0.398	mg/kg	07.17.2020 16:20		200
Total Xylenes	1330-20-7	**71.8**	0.398	mg/kg	07.17.2020 16:20		200
Total BTEX		**80.8**	0.0996	mg/kg	07.17.2020 16:20		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	07.17.2020 16:20	
1,4-Difluorobenzene	540-36-3	96	%	70-130	07.17.2020 16:20	

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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

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QC Summary 667503

LT Environmental, Inc.

PLU PC 17 TB

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3132011 — Matrix: Solid — Date Prep: 07.17.2020
MB Sample Id: 7707602-1-BLK — LCS Sample Id: 7707602-1-BKS — LCSD Sample Id: 7707602-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	255	102	266	106	90-110	4	20	mg/kg	07.17.2020 14:46	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3132011 — Matrix: Soil — Date Prep: 07.17.2020
Parent Sample Id: 667503-001 — MS Sample Id: 667503-001 S — MSD Sample Id: 667503-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	126	200	335	105	330	102	90-110	2	20	mg/kg	07.17.2020 15:03	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3132010 — Matrix: Solid — Date Prep: 07.17.2020
MB Sample Id: 7707598-1-BLK — LCS Sample Id: 7707598-1-BKS — LCSD Sample Id: 7707598-1-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	1010	101	1000	100	70-135	1	35	mg/kg	07.17.2020 14:31	
Diesel Range Organics (DRO)	<50.0	1000	1150	115	1130	113	70-135	2	35	mg/kg	07.17.2020 14:31	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		124		125		70-135	%	07.17.2020 14:31
o-Terphenyl	112		117		118		70-135	%	07.17.2020 14:31

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3132010 — Matrix: Solid — Date Prep: 07.17.2020
MB Sample Id: 7707598-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.17.2020 14:10	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3132010 — Matrix: Soil — Date Prep: 07.17.2020
Parent Sample Id: 667506-001 — MS Sample Id: 667506-001 S — MSD Sample Id: 667506-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	915	92	940	94	70-135	3	35	mg/kg	07.17.2020 15:34	
Diesel Range Organics (DRO)	<50.0	999	1020	102	1050	105	70-135	3	35	mg/kg	07.17.2020 15:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		122		70-135	%	07.17.2020 15:34
o-Terphenyl	108		110		70-135	%	07.17.2020 15:34

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

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

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

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QC Summary 667503

LT Environmental, Inc.

PLU PC 17 TB

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3132013 Matrix: Solid Date Prep: 07.17.2020
MB Sample Id: 7707605-1-BLK LCS Sample Id: 7707605-1-BKS LCSD Sample Id: 7707605-1-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	0.118	118	70-130	5	35	mg/kg	07.17.2020 11:38	
Toluene	<0.00200	0.100	0.108	108	0.114	114	70-130	5	35	mg/kg	07.17.2020 11:38	
Ethylbenzene	<0.00200	0.100	0.103	103	0.109	109	71-129	6	35	mg/kg	07.17.2020 11:38	
m,p-Xylenes	<0.00400	0.200	0.209	105	0.220	110	70-135	5	35	mg/kg	07.17.2020 11:38	
o-Xylene	<0.00200	0.100	0.101	101	0.107	107	71-133	6	35	mg/kg	07.17.2020 11:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		100		70-130	%	07.17.2020 11:38
4-Bromofluorobenzene	99		98		102		70-130	%	07.17.2020 11:38

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3132013 Matrix: Soil Date Prep: 07.17.2020
Parent Sample Id: 667506-001 MS Sample Id: 667506-001 S MSD Sample Id: 667506-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.125	125	0.121	121	70-130	3	35	mg/kg	07.17.2020 12:21	
Toluene	<0.00200	0.0998	0.118	118	0.113	113	70-130	4	35	mg/kg	07.17.2020 12:21	
Ethylbenzene	<0.00200	0.0998	0.110	110	0.105	105	71-129	5	35	mg/kg	07.17.2020 12:21	
m,p-Xylenes	<0.00399	0.200	0.222	111	0.212	106	70-135	5	35	mg/kg	07.17.2020 12:21	
o-Xylene	<0.00200	0.0998	0.108	108	0.103	103	71-133	5	35	mg/kg	07.17.2020 12:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		99		70-130	%	07.17.2020 12:21
4-Bromofluorobenzene	103		98		70-130	%	07.17.2020 12:21

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

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

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

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 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701
www.xenco.com

Work Order No: 467503

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc. Permian Office	Company Name:	XTO Energy, Inc
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad NM 88220
Phone:	(432) 236-3849	Email:	fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	PLU PC 17TB	Turn Around	
Project Number:	012920085	Routine ☐	
Project Location	Eddy county	Rush: 24hrs	
Sampler's Name:	Fatima Smith	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.0/1.8	Thermometer ID	THM007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	2

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

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

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	BTEX	TPH	Chloride (EPA 300.0)	Sample Comments
	BH03	S	7/16/20	0923	0.5'	1		X	X	X	
	BH03A	S	7/16/20	0937	2'	1		X	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl 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 Tl 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
		7/16/20 17:25	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

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Certificate of Analysis Summary 667955

LT Environmental, Inc., Arvada, CO

Project Name: PLU PC 17 TB

Project Id: 012920085
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed 07.22.2020 16:32
Report Date: 07.23.2020 13:24
Project Manager: Jessica Kramer

Analysis Requested								
	Lab Id:	667955-001						
	Field Id:	BH03B						
	Depth:	3- ft						
	Matrix:	SOIL						
	Sampled:	07.17.2020 08:36						
BTEX by EPA 8021B	***Extracted:***	07.22.2020 17:00						
	Analyzed:	07.22.2020 22:17						
	Units/RL:	mg/kg	RL					
Benzene		<0.00500	0.00500					
Toluene		0.441	0.0200					
Ethylbenzene		0.432	0.0200					
m,p-Xylenes		6.12	0.0400					
o-Xylene		1.79	0.0200					
Total Xylenes		7.91	0.0200					
Total BTEX		8.78	0.00500					
Chloride by EPA 300	***Extracted:***	07.22.2020 17:54						
	Analyzed:	07.23.2020 05:29						
	Units/RL:	mg/kg	RL					
Chloride		462	9.96					
TPH by SW8015 Mod	***Extracted:***	07.22.2020 16:50						
	Analyzed:	07.22.2020 19:20						
	Units/RL:	mg/kg	RL					
Gasoline Range Hydrocarbons (GRO)		571	50.2					
Diesel Range Organics (DRO)		4250	50.2					
Motor Oil Range Hydrocarbons (MRO)		228	50.2					
Total GRO-DRO		4820	50.2					
Total TPH		5050	50.2					

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 667955

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU PC 17 TB

012920085

07.23.2020

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: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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07.23.2020

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **667955**
PLU PC 17 TB
Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 667955. 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. 667955 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 667955

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH03B	S	07.17.2020 08:36	3 ft	667955-001

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CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU PC 17 TB

Project ID: *012920085*
Work Order Number(s): *667955*

Report Date: *07.23.2020*
Date Received: *07.22.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 667955

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**BH03B**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667955-001	Date Collected:	07.17.2020 08:36	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.22.2020 17:54	Basis:	Wet Weight
Seq Number:	3132399				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**462**	9.96	mg/kg	07.23.2020 05:29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.22.2020 16:50	Basis:	Wet Weight
Seq Number:	3132405				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**571**	50.2	mg/kg	07.22.2020 19:20		1
Diesel Range Organics (DRO)	C10C28DRO	**4250**	50.2	mg/kg	07.22.2020 19:20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**228**	50.2	mg/kg	07.22.2020 19:20		1
Total GRO-DRO	PHC628	**4820**	50.2	mg/kg	07.22.2020 19:20		1
Total TPH	PHC635	**5050**	50.2	mg/kg	07.22.2020 19:20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	125	%	70-135	07.22.2020 19:20	
o-Terphenyl	84-15-1	112	%	70-135	07.22.2020 19:20	

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Certificate of Analytical Results 667955

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**BH03B**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667955-001	Date Collected:	07.17.2020 08:36	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.22.2020 17:00	Basis:	Wet Weight
Seq Number:	3132403				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00500	0.00500	mg/kg	07.22.2020 22:17	U	1
Toluene	108-88-3	**0.441**	0.0200	mg/kg	07.22.2020 22:17		1
Ethylbenzene	100-41-4	**0.432**	0.0200	mg/kg	07.22.2020 22:17		1
m,p-Xylenes	179601-23-1	**6.12**	0.0400	mg/kg	07.22.2020 22:17		1
o-Xylene	95-47-6	**1.79**	0.0200	mg/kg	07.22.2020 22:17		1
Total Xylenes	1330-20-7	**7.91**	0.0200	mg/kg	07.22.2020 22:17		1
Total BTEX		**8.78**	0.00500	mg/kg	07.22.2020 22:17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	130	%	70-130	07.22.2020 22:17	
1,4-Difluorobenzene	540-36-3	96	%	70-130	07.22.2020 22:17	

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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

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QC Summary 667955

LT Environmental, Inc.

PLU PC 17 TB

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3132399 — Matrix: Solid — Date Prep: 07.22.2020
MB Sample Id: 7707895-1-BLK — LCS Sample Id: 7707895-1-BKS — LCSD Sample Id: 7707895-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	261	104	269	108	90-110	3	20	mg/kg	07.23.2020 02:58	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3132399 — Matrix: Soil — Date Prep: 07.22.2020
Parent Sample Id: 667904-050 — MS Sample Id: 667904-050 S — MSD Sample Id: 667904-050 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7470	201	7680	104	7670	101	90-110	0	20	mg/kg	07.23.2020 03:15	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3132399 — Matrix: Soil — Date Prep: 07.22.2020
Parent Sample Id: 667904-060 — MS Sample Id: 667904-060 S — MSD Sample Id: 667904-060 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	129	200	338	105	338	105	90-110	0	20	mg/kg	07.23.2020 04:33	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3132405 — Matrix: Solid — Date Prep: 07.22.2020
MB Sample Id: 7707899-1-BLK — LCS Sample Id: 7707899-1-BKS — LCSD Sample Id: 7707899-1-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	935	94	1010	101	70-135	8	35	mg/kg	07.22.2020 10:11	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1120	112	70-135	7	35	mg/kg	07.22.2020 10:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		122		126		70-135	%	07.22.2020 10:11
o-Terphenyl	109		110		118		70-135	%	07.22.2020 10:11

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3132405 — Matrix: Solid — Date Prep: 07.22.2020
MB Sample Id: 7707899-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.22.2020 09:50	

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

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QC Summary 667955

LT Environmental, Inc.

PLU PC 17 TB

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3132405 Matrix: Soil Date Prep: 07.22.2020
Parent Sample Id: 667902-007 MS Sample Id: 667902-007 S MSD Sample Id: 667902-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	863	86	878	88	70-135	2	35	mg/kg	07.22.2020 14:42	
Diesel Range Organics (DRO)	<50.0	1000	978	98	959	96	70-135	2	35	mg/kg	07.22.2020 14:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		117		70-135	%	07.22.2020 14:42
o-Terphenyl	110		105		70-135	%	07.22.2020 14:42

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3132403 Matrix: Solid Date Prep: 07.22.2020
MB Sample Id: 7707875-1-BLK LCS Sample Id: 7707875-1-BKS LCSD Sample Id: 7707875-1-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	0.115	115	0.122	122	70-130	6	35	mg/kg	07.22.2020 15:28	
Toluene	<0.00200	0.100	0.110	110	0.116	116	70-130	5	35	mg/kg	07.22.2020 15:28	
Ethylbenzene	<0.00200	0.100	0.102	102	0.108	108	71-129	6	35	mg/kg	07.22.2020 15:28	
m,p-Xylenes	<0.00400	0.200	0.206	103	0.218	109	70-135	6	35	mg/kg	07.22.2020 15:28	
o-Xylene	<0.00200	0.100	0.102	102	0.108	108	71-133	6	35	mg/kg	07.22.2020 15:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		100		70-130	%	07.22.2020 15:28
4-Bromofluorobenzene	103		102		102		70-130	%	07.22.2020 15:28

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3132403 Matrix: Soil Date Prep: 07.22.2020
Parent Sample Id: 667902-007 MS Sample Id: 667902-007 S MSD Sample Id: 667902-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.125	126	0.113	113	70-130	10	35	mg/kg	07.22.2020 16:32	
Toluene	<0.00199	0.0996	0.117	117	0.106	106	70-130	10	35	mg/kg	07.22.2020 16:32	
Ethylbenzene	<0.00199	0.0996	0.110	110	0.0989	99	71-129	11	35	mg/kg	07.22.2020 16:32	
m,p-Xylenes	<0.00398	0.199	0.224	113	0.200	101	70-135	11	35	mg/kg	07.22.2020 16:32	
o-Xylene	<0.00199	0.0996	0.110	110	0.0985	99	71-133	11	35	mg/kg	07.22.2020 16:32	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		98		70-130	%	07.22.2020 16:32
4-Bromofluorobenzene	103		100		70-130	%	07.22.2020 16:32

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

Chain of Custody

XENCO LABORATORIES

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 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Work Order No: 467955

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian Office	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	PLU PC 17TB	Turn Around	
Project Number:	012920085	Routine ☐	
Project Location	Eddy county	Rush: 24 hrs	
Sampler's Name:	Fatima Smith	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temperature (°C):	1.2/1.4	Temp Blank:	Yes No
Received Intact:	Yes No	Wet Ice:	Yes No
Cooler Custody Seals:	Yes No N/A	Thermometer ID	T-NM-007
Sample Custody Seals:	Yes No N/A	Correction Factor:	-0.2
		Total Containers:	1

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
	BH03B	S	7/17/20	0836	3'	1	X	X	X

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

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

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 Tl 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 Tl 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
		7/22/20 10:32	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07.22.2020 04.32.00 PM

Work Order #: 667955

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)?	1.4	
#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**	Samples received in bulk containers.
#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: 07.22.2020

Checklist reviewed by: Jessica Kramer Date: 07.23.2020

Jessica Kramer

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Certificate of Analysis Summary 667959

LT Environmental, Inc., Arvada, CO

Project Name: PLU PC 17 TB

Project Id: 012920085
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed 07.22.2020 16:32
Report Date: 07.24.2020 14:20
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	667959-001		667959-002		667959-003		667959-004		667959-005		667959-006	
	Field Id:	PH01		PH01A		PH02		PH02A		PH03		PH03A	
	Depth:	1- ft		2- ft		1- ft		2- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	07.16.2020 10:35		07.16.2020 10:38		07.16.2020 11:15		07.16.2020 11:18		07.16.2020 11:40		07.16.2020 11:52	
BTEX by EPA 8021B	***Extracted:***	07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45	
	Analyzed:	07.23.2020 17:15		07.23.2020 17:35		07.23.2020 17:56		07.23.2020 18:16		07.23.2020 19:32		07.23.2020 19:52	
	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	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Toluene		<0.00198	0.00198	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Ethylbenzene		<0.00198	0.00198	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
m,p-Xylenes		<0.00397	0.00397	<0.00396	0.00396	<0.00398	0.00398	<0.00399	0.00399	<0.00404	0.00404	<0.00398	0.00398
o-Xylene		<0.00198	0.00198	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Total Xylenes		<0.00198	0.00198	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Total BTEX		<0.00198	0.00198	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199
Chloride by EPA 300	***Extracted:***	07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45	
	Analyzed:	07.23.2020 16:43		07.23.2020 16:48		07.23.2020 16:54		07.23.2020 17:00		07.23.2020 17:16		07.23.2020 17:22	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		478	9.94	1420	50.2	67.3	9.98	156	10.0	122	10.1	374	10.1
TPH by SW8015 Mod	***Extracted:***	07.23.2020 16:00		07.23.2020 16:00		07.23.2020 16:00		07.23.2020 16:00		07.23.2020 16:00		07.23.2020 16:00	
	Analyzed:	07.23.2020 16:11		07.23.2020 16:31		07.23.2020 16:51		07.23.2020 17:11		07.23.2020 17:51		07.23.2020 18:11	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.2	50.2	<50.0	50.0	<50.2	50.2
Diesel Range Organics (DRO)		<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.2	50.2	<50.0	50.0	<50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.2	50.2	<50.0	50.0	<50.2	50.2
Total GRO-DRO		<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.2	50.2	<50.0	50.0	<50.2	50.2
Total TPH		<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.2	50.2	<50.0	50.0	<50.2	50.2

BRL - Below Reporting Limit

Jessica Kramer

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

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Certificate of Analysis Summary 667959

LT Environmental, Inc., Arvada, CO

Project Name: PLU PC 17 TB

Project Id: 012920085
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed 07.22.2020 16:32
Report Date: 07.24.2020 14:20
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	667959-007		667959-008		667959-009		667959-010		667959-011		667959-012	
	Field Id:	PH04		PH04A		PH05		PH05A		PH06		PH06A	
	Depth:	1- ft		2- ft		1- ft		2- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	07.16.2020 12:45		07.16.2020 12:48		07.16.2020 14:03		07.16.2020 14:06		07.16.2020 14:22		07.16.2020 14:28	
BTEX by EPA 8021B	***Extracted:***	07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45	
	Analyzed:	07.23.2020 20:13		07.23.2020 20:33		07.23.2020 20:54		07.23.2020 21:14		07.23.2020 21:34		07.23.2020 21:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00401	0.00401	<0.00400	0.00400	<0.00401	0.00401	<0.00402	0.00402	<0.00401	0.00401	<0.00401	0.00401
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45	
	Analyzed:	07.23.2020 17:28		07.23.2020 17:44		07.23.2020 17:50		07.23.2020 17:55		07.23.2020 18:01		07.23.2020 18:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		26.1	10.1	27.0	9.90	12.1	10.0	28.8	10.1	14.5	10.1	50.3	10.1
TPH by SW8015 Mod	***Extracted:***	07.23.2020 16:00		07.23.2020 16:00		07.23.2020 16:00		07.23.2020 16:00		07.23.2020 16:00		07.23.2020 16:00	
	Analyzed:	07.23.2020 18:32		07.23.2020 18:52		07.23.2020 19:12		07.23.2020 19:32		07.23.2020 19:53		07.23.2020 20:13	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.0	50.0	<50.0	50.0	<50.3	50.3	<50.2	50.2	<50.2	50.2
Diesel Range Organics (DRO)		<50.1	50.1	<50.0	50.0	<50.0	50.0	<50.3	50.3	<50.2	50.2	<50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.0	50.0	<50.0	50.0	<50.3	50.3	<50.2	50.2	<50.2	50.2
Total GRO-DRO		<50.1	50.1	<50.0	50.0	<50.0	50.0	<50.3	50.3	<50.2	50.2	<50.2	50.2
Total TPH		<50.1	50.1	<50.0	50.0	<50.0	50.0	<50.3	50.3	<50.2	50.2	<50.2	50.2

BRL - Below Reporting Limit

Jessica Kramer

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Analytical Report 667959

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU PC 17 TB

012920085

07.24.2020

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: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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07.24.2020

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **667959**
PLU PC 17 TB
Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 667959. 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. 667959 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	07.16.2020 10:35	1 ft	667959-001
PH01A	S	07.16.2020 10:38	2 ft	667959-002
PH02	S	07.16.2020 11:15	1 ft	667959-003
PH02A	S	07.16.2020 11:18	2 ft	667959-004
PH03	S	07.16.2020 11:40	1 ft	667959-005
PH03A	S	07.16.2020 11:52	2 ft	667959-006
PH04	S	07.16.2020 12:45	1 ft	667959-007
PH04A	S	07.16.2020 12:48	2 ft	667959-008
PH05	S	07.16.2020 14:03	1 ft	667959-009
PH05A	S	07.16.2020 14:06	2 ft	667959-010
PH06	S	07.16.2020 14:22	1 ft	667959-011
PH06A	S	07.16.2020 14:28	2 ft	667959-012

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CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU PC 17 TB

Project ID: *012920085*
Work Order Number(s): *667959*

Report Date: *07.24.2020*
Date Received: *07.22.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-001	Date Collected:	07.16.2020 10:35	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**478**	9.94	mg/kg	07.23.2020 16:43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 16:00	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	07.23.2020 16:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	07.23.2020 16:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	07.23.2020 16:11	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	07.23.2020 16:11	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	07.23.2020 16:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	07.23.2020 16:11	
o-Terphenyl	84-15-1	107	%	70-135	07.23.2020 16:11	

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Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-001	Date Collected:	07.16.2020 10:35	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.23.2020 17:15	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.23.2020 17:15	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.23.2020 17:15	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.23.2020 17:15	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.23.2020 17:15	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.23.2020 17:15	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.23.2020 17:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	07.23.2020 17:15	
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.23.2020 17:15	

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Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-002	Date Collected:	07.16.2020 10:38	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1420**	50.2	mg/kg	07.23.2020 16:48		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 16:00	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.23.2020 16:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.23.2020 16:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.23.2020 16:31	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	07.23.2020 16:31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.23.2020 16:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	07.23.2020 16:31	
o-Terphenyl	84-15-1	111	%	70-135	07.23.2020 16:31	

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Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-002	Date Collected:	07.16.2020 10:38	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.23.2020 17:35	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.23.2020 17:35	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.23.2020 17:35	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	07.23.2020 17:35	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.23.2020 17:35	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.23.2020 17:35	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.23.2020 17:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	07.23.2020 17:35	
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.23.2020 17:35	

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Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-003	Date Collected:	07.16.2020 11:15	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**67.3**	9.98	mg/kg	07.23.2020 16:54		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 16:00	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.23.2020 16:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.23.2020 16:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.23.2020 16:51	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	07.23.2020 16:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.23.2020 16:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	07.23.2020 16:51	
o-Terphenyl	84-15-1	110	%	70-135	07.23.2020 16:51	

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Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-003	Date Collected:	07.16.2020 11:15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.23.2020 17:56	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.23.2020 17:56	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.23.2020 17:56	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.23.2020 17:56	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.23.2020 17:56	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.23.2020 17:56	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.23.2020 17:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.23.2020 17:56	
4-Bromofluorobenzene	460-00-4	106	%	70-130	07.23.2020 17:56	

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Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-004	Date Collected:	07.16.2020 11:18	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**156**	10.0	mg/kg	07.23.2020 17:00		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 16:00	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	07.23.2020 17:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	07.23.2020 17:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	07.23.2020 17:11	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	07.23.2020 17:11	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	07.23.2020 17:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	07.23.2020 17:11	
o-Terphenyl	84-15-1	110	%	70-135	07.23.2020 17:11	

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Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-004	Date Collected:	07.16.2020 11:18	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.23.2020 18:16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.23.2020 18:16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.23.2020 18:16	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.23.2020 18:16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.23.2020 18:16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.23.2020 18:16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.23.2020 18:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.23.2020 18:16	
4-Bromofluorobenzene	460-00-4	103	%	70-130	07.23.2020 18:16	

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Sample Id: **PH03** Matrix: Soil Date Received:07.22.2020 16:32
Lab Sample Id: 667959-005 Date Collected: 07.16.2020 11:40 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 07.23.2020 13:45 Basis: Wet Weight
Seq Number: 3132524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**122**	10.1	mg/kg	07.23.2020 17:16		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 07.23.2020 16:00 Basis: Wet Weight
Seq Number: 3132503

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.23.2020 17:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.23.2020 17:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.23.2020 17:51	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	07.23.2020 17:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.23.2020 17:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	07.23.2020 17:51	
o-Terphenyl	84-15-1	113	%	70-135	07.23.2020 17:51	

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Sample Id:	**PH03**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-005	Date Collected:	07.16.2020 11:40	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.23.2020 19:32	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.23.2020 19:32	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.23.2020 19:32	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.23.2020 19:32	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.23.2020 19:32	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.23.2020 19:32	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.23.2020 19:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.23.2020 19:32	
4-Bromofluorobenzene	460-00-4	106	%	70-130	07.23.2020 19:32	

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Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-006	Date Collected:	07.16.2020 11:52	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**374**	10.1	mg/kg	07.23.2020 17:22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 16:00	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	07.23.2020 18:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	07.23.2020 18:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	07.23.2020 18:11	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	07.23.2020 18:11	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	07.23.2020 18:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	07.23.2020 18:11	
o-Terphenyl	84-15-1	115	%	70-135	07.23.2020 18:11	

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Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-006	Date Collected:	07.16.2020 11:52	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.23.2020 19:52	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.23.2020 19:52	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.23.2020 19:52	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.23.2020 19:52	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.23.2020 19:52	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.23.2020 19:52	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.23.2020 19:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	07.23.2020 19:52	
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.23.2020 19:52	

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Sample Id:	**PH04**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-007	Date Collected:	07.16.2020 12:45	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**26.1**	10.1	mg/kg	07.23.2020 17:28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 16:00	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	07.23.2020 18:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	07.23.2020 18:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	07.23.2020 18:32	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	07.23.2020 18:32	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	07.23.2020 18:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	07.23.2020 18:32	
o-Terphenyl	84-15-1	114	%	70-135	07.23.2020 18:32	

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Sample Id:	**PH04**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-007	Date Collected:	07.16.2020 12:45	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.23.2020 20:13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.23.2020 20:13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.23.2020 20:13	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.23.2020 20:13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.23.2020 20:13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.23.2020 20:13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.23.2020 20:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	07.23.2020 20:13	
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.23.2020 20:13	

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Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-008	Date Collected:	07.16.2020 12:48	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**27.0**	9.90	mg/kg	07.23.2020 17:44		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 16:00	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.23.2020 18:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.23.2020 18:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.23.2020 18:52	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	07.23.2020 18:52	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.23.2020 18:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	07.23.2020 18:52	
o-Terphenyl	84-15-1	115	%	70-135	07.23.2020 18:52	

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Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-008	Date Collected:	07.16.2020 12:48	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.23.2020 20:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.23.2020 20:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.23.2020 20:33	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.23.2020 20:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.23.2020 20:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.23.2020 20:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.23.2020 20:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	07.23.2020 20:33	
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.23.2020 20:33	

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Sample Id: **PH05** Matrix: Soil Date Received:07.22.2020 16:32
Lab Sample Id: 667959-009 Date Collected: 07.16.2020 14:03 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 07.23.2020 13:45 Basis: Wet Weight
Seq Number: 3132524

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.1**	10.0	mg/kg	07.23.2020 17:50		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DTH % Moisture:
Analyst: DTH Date Prep: 07.23.2020 16:00 Basis: Wet Weight
Seq Number: 3132503

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.23.2020 19:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.23.2020 19:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.23.2020 19:12	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	07.23.2020 19:12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.23.2020 19:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	07.23.2020 19:12	
o-Terphenyl	84-15-1	117	%	70-135	07.23.2020 19:12	

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Sample Id:	**PH05**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-009	Date Collected:	07.16.2020 14:03	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.23.2020 20:54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.23.2020 20:54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.23.2020 20:54	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.23.2020 20:54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.23.2020 20:54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.23.2020 20:54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.23.2020 20:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.23.2020 20:54	
4-Bromofluorobenzene	460-00-4	104	%	70-130	07.23.2020 20:54	

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Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-010	Date Collected:	07.16.2020 14:06	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**28.8**	10.1	mg/kg	07.23.2020 17:55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 16:00	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	07.23.2020 19:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	07.23.2020 19:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	07.23.2020 19:32	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	07.23.2020 19:32	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	07.23.2020 19:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	07.23.2020 19:32	
o-Terphenyl	84-15-1	115	%	70-135	07.23.2020 19:32	

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Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-010	Date Collected:	07.16.2020 14:06	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.23.2020 21:14	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.23.2020 21:14	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.23.2020 21:14	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.23.2020 21:14	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.23.2020 21:14	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.23.2020 21:14	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.23.2020 21:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	07.23.2020 21:14	
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.23.2020 21:14	

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LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-011	Date Collected:	07.16.2020 14:22	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.5**	10.1	mg/kg	07.23.2020 18:01		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 16:00	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	07.23.2020 19:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	07.23.2020 19:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	07.23.2020 19:53	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	07.23.2020 19:53	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	07.23.2020 19:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	07.23.2020 19:53	
o-Terphenyl	84-15-1	114	%	70-135	07.23.2020 19:53	

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Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-011	Date Collected:	07.16.2020 14:22	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.23.2020 21:34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.23.2020 21:34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.23.2020 21:34	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.23.2020 21:34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.23.2020 21:34	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.23.2020 21:34	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.23.2020 21:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	07.23.2020 21:34	
1,4-Difluorobenzene	540-36-3	100	%	70-130	07.23.2020 21:34	

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Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-012	Date Collected:	07.16.2020 14:28	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**50.3**	10.1	mg/kg	07.23.2020 18:07		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 16:00	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	07.23.2020 20:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	07.23.2020 20:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	07.23.2020 20:13	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	07.23.2020 20:13	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	07.23.2020 20:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	07.23.2020 20:13	
o-Terphenyl	84-15-1	111	%	70-135	07.23.2020 20:13	

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Certificate of Analytical Results 667959

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667959-012	Date Collected:	07.16.2020 14:28	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.23.2020 21:55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.23.2020 21:55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.23.2020 21:55	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.23.2020 21:55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.23.2020 21:55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.23.2020 21:55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.23.2020 21:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.23.2020 21:55	
4-Bromofluorobenzene	460-00-4	103	%	70-130	07.23.2020 21:55	

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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

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QC Summary 667959

LT Environmental, Inc.

PLU PC 17 TB

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3132524 — Matrix: Solid — Date Prep: 07.23.2020
MB Sample Id: 7707935-1-BLK — LCS Sample Id: 7707935-1-BKS — LCSD Sample Id: 7707935-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	264	106	273	109	90-110	3	20	mg/kg	07.23.2020 15:36	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3132524 — Matrix: Soil — Date Prep: 07.23.2020
Parent Sample Id: 667958-001 — MS Sample Id: 667958-001 S — MSD Sample Id: 667958-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	318	201	513	97	517	100	90-110	1	20	mg/kg	07.23.2020 15:52	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3132524 — Matrix: Soil — Date Prep: 07.23.2020
Parent Sample Id: 667959-004 — MS Sample Id: 667959-004 S — MSD Sample Id: 667959-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	156	201	367	105	367	105	90-110	0	20	mg/kg	07.23.2020 17:05	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3132503 — Matrix: Solid — Date Prep: 07.23.2020
MB Sample Id: 7707980-1-BLK — LCS Sample Id: 7707980-1-BKS — LCSD Sample Id: 7707980-1-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	942	94	984	98	70-135	4	35	mg/kg	07.23.2020 12:50	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1110	111	70-135	6	35	mg/kg	07.23.2020 12:50	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		123		124		70-135	%	07.23.2020 12:50
o-Terphenyl	122		111		120		70-135	%	07.23.2020 12:50

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3132503 — Matrix: Solid — Date Prep: 07.23.2020
MB Sample Id: 7707980-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.23.2020 12:30	

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

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QC Summary 667959

LT Environmental, Inc.

PLU PC 17 TB

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3132503 Matrix: Soil Date Prep: 07.23.2020
Parent Sample Id: 667958-001 MS Sample Id: 667958-001 S MSD Sample Id: 667958-001 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	977	98	986	98	70-135	1	35	mg/kg	07.23.2020 13:50	
Diesel Range Organics (DRO)	<50.1	1000	1070	107	1090	108	70-135	2	35	mg/kg	07.23.2020 13:50	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		127		70-135	%	07.23.2020 13:50
o-Terphenyl	116		119		70-135	%	07.23.2020 13:50

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3132516 Matrix: Solid Date Prep: 07.23.2020
MB Sample Id: 7707934-1-BLK LCS Sample Id: 7707934-1-BKS LCSD Sample Id: 7707934-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.102	102	0.103	103	70-130	1	35	mg/kg	07.23.2020 13:16	
Toluene	<0.00200	0.100	0.0973	97	0.0982	98	70-130	1	35	mg/kg	07.23.2020 13:16	
Ethylbenzene	<0.00200	0.100	0.102	102	0.104	104	71-129	2	35	mg/kg	07.23.2020 13:16	
m,p-Xylenes	<0.00400	0.200	0.209	105	0.211	106	70-135	1	35	mg/kg	07.23.2020 13:16	
o-Xylene	<0.00200	0.100	0.103	103	0.104	104	71-133	1	35	mg/kg	07.23.2020 13:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		98		96		70-130	%	07.23.2020 13:16
4-Bromofluorobenzene	108		98		100		70-130	%	07.23.2020 13:16

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3132516 Matrix: Soil Date Prep: 07.23.2020
Parent Sample Id: 667958-001 MS Sample Id: 667958-001 S MSD Sample Id: 667958-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.102	101	0.108	108	70-130	6	35	mg/kg	07.23.2020 13:57	
Toluene	<0.00202	0.101	0.0972	96	0.103	103	70-130	6	35	mg/kg	07.23.2020 13:57	
Ethylbenzene	<0.00202	0.101	0.101	100	0.107	107	71-129	6	35	mg/kg	07.23.2020 13:57	
m,p-Xylenes	<0.00403	0.202	0.207	102	0.218	109	70-135	5	35	mg/kg	07.23.2020 13:57	
o-Xylene	<0.00202	0.101	0.103	102	0.108	108	71-133	5	35	mg/kg	07.23.2020 13:57	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		98		70-130	%	07.23.2020 13:57
4-Bromofluorobenzene	104		101		70-130	%	07.23.2020 13:57

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

XENCO LABORATORIES

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 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701
www.xenco.com

Work Order No: ~~667958~~ 667959

Page 1 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian Office	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	PLUPC 17 TB	Turn Around	
Project Number:	012920085	Routine	☑
Project Location	Eddy county	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT

Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.6/1.4	Thermometer ID	T-NM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	12

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

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

ANALYSIS REQUEST

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA O= 8021)	Chloride (EPA 300.0)	Sample Comments
	PH01	S	7/16/20	1035	1'	1	X	X	X	
	PH01A	↓	↓	1038	2'	↓	↓	↓	↓	
	PH02	↓	↓	1115	1'	↓	↓	↓	↓	
	PH02A	↓	↓	1118	2'	↓	↓	↓	↓	
	PH03	↓	↓	1140	1'	↓	↓	↓	↓	
	PH03A	↓	↓	1152	2'	↓	↓	↓	↓	
	PH04	↓	↓	1245	1'	↓	↓	↓	↓	
	PH04A	↓	↓	1248	2'	↓	↓	↓	↓	
	PH05	↓	↓	1403	1'	↓	↓	↓	↓	
	PH05A	↓	↓	1406	2'	↓	↓	↓	↓	

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 Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
[signature]	[signature]	7/22/20 16:32	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

XENCO LABORATORIES

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 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Work Order No: ~~666 7958~~ 667959

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian Office	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	PLU PC 17 TB	Turn Around	
Project Number:	012920085	Routine	☑
Project Location	Eddy county	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
PO #:		Quote #:	

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

ANALYSIS REQUEST

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA D=8021)	Chloride (EPA 300.0)	Sample Comments
	PH06	S	7/16/20	1422	1'	1	X	X	X	
	PH06A	S	7/16/20	1428	2'	1	X	X	X	

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

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

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 Tl 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 Tl 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
[signature]	[signature]	7/22/20 16:32	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07.22.2020 04.32.00 PM

Work Order #: 667959

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)?	1.4	
#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**	Samples received in bulk containers.
#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: 07.22.2020

Checklist reviewed by: Jessica Kramer Date: 07.23.2020

Jessica Kramer

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Certificate of Analysis Summary 667958

LT Environmental, Inc., Arvada, CO

Project Name: PLU PC 17 TB

Project Id: 012920085
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed 07.22.2020 16:32
Report Date: 07.24.2020 14:20
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	667958-001		667958-002		667958-003		667958-004		667958-005		667958-006	
	Field Id:	PH01B		PH02B		PH03B		PH04B		PH05B		PH06B	
	Depth:	3- ft		3- ft		4- ft		3- ft		3- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	07.16.2020 10:51		07.16.2020 11:24		07.16.2020 12:19		07.16.2020 12:54		07.16.2020 14:13		07.16.2020 14:41	
BTEX by EPA 8021B	***Extracted:***	07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45	
	Analyzed:	07.23.2020 15:13		07.23.2020 15:33		07.23.2020 15:53		07.23.2020 16:14		07.23.2020 16:34		07.23.2020 16:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
m,p-Xylenes		<0.00402	0.00402	<0.00401	0.00401	<0.00400	0.00400	<0.00401	0.00401	<0.00402	0.00402	<0.00398	0.00398
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Chloride by EPA 300	***Extracted:***	07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45		07.23.2020 13:45	
	Analyzed:	07.23.2020 15:47		07.23.2020 16:04		07.23.2020 16:09		07.23.2020 16:15		07.23.2020 16:21		07.23.2020 16:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		318	100	177	10.1	519	10.0	32.3	9.92	47.4	10.1	37.9	10.1
TPH by SW8015 Mod	***Extracted:***	07.23.2020 13:15		07.23.2020 13:15		07.23.2020 13:15		07.23.2020 13:15		07.23.2020 13:15		07.23.2020 13:15	
	Analyzed:	07.23.2020 13:30		07.23.2020 14:31		07.23.2020 14:51		07.23.2020 15:11		07.23.2020 15:31		07.23.2020 15:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.0	50.0
Diesel Range Organics (DRO)		<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.0	50.0
Total GRO-DRO		<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.0	50.0
Total TPH		<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.0	50.0

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 667958

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU PC 17 TB

012920085

07.24.2020

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: TNI02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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07.24.2020

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **667958**
PLU PC 17 TB
Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 667958. 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. 667958 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01B	S	07.16.2020 10:51	3 ft	667958-001
PH02B	S	07.16.2020 11:24	3 ft	667958-002
PH03B	S	07.16.2020 12:19	4 ft	667958-003
PH04B	S	07.16.2020 12:54	3 ft	667958-004
PH05B	S	07.16.2020 14:13	3 ft	667958-005
PH06B	S	07.16.2020 14:41	3 ft	667958-006

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CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU PC 17 TB

Project ID: *012920085*
Work Order Number(s): *667958*

Report Date: *07.24.2020*
Date Received: *07.22.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH01B**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667958-001	Date Collected:	07.16.2020 10:51	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**318**	100	mg/kg	07.23.2020 15:47		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 13:15	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	07.23.2020 13:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	07.23.2020 13:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	07.23.2020 13:30	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	07.23.2020 13:30	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	07.23.2020 13:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	07.23.2020 13:30	
o-Terphenyl	84-15-1	106	%	70-135	07.23.2020 13:30	

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Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH01B**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667958-001	Date Collected:	07.16.2020 10:51	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.23.2020 15:13	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.23.2020 15:13	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.23.2020 15:13	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.23.2020 15:13	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.23.2020 15:13	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.23.2020 15:13	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.23.2020 15:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	07.23.2020 15:13	
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.23.2020 15:13	

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Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH02B**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667958-002	Date Collected:	07.16.2020 11:24	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**177**	10.1	mg/kg	07.23.2020 16:04		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 13:15	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.23.2020 14:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.23.2020 14:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.23.2020 14:31	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	07.23.2020 14:31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.23.2020 14:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	07.23.2020 14:31	
o-Terphenyl	84-15-1	113	%	70-135	07.23.2020 14:31	

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Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH02B**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667958-002	Date Collected:	07.16.2020 11:24	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.23.2020 15:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.23.2020 15:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.23.2020 15:33	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.23.2020 15:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.23.2020 15:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.23.2020 15:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.23.2020 15:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	07.23.2020 15:33	
4-Bromofluorobenzene	460-00-4	103	%	70-130	07.23.2020 15:33	

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Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH03B**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667958-003	Date Collected:	07.16.2020 12:19	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**519**	10.0	mg/kg	07.23.2020 16:09		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 13:15	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.23.2020 14:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.23.2020 14:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.23.2020 14:51	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	07.23.2020 14:51	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.23.2020 14:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	07.23.2020 14:51	
o-Terphenyl	84-15-1	108	%	70-135	07.23.2020 14:51	

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Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH03B**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667958-003	Date Collected:	07.16.2020 12:19	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.23.2020 15:53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.23.2020 15:53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.23.2020 15:53	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.23.2020 15:53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.23.2020 15:53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.23.2020 15:53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.23.2020 15:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	07.23.2020 15:53	
4-Bromofluorobenzene	460-00-4	103	%	70-130	07.23.2020 15:53	

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Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH04B**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667958-004	Date Collected:	07.16.2020 12:54	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**32.3**	9.92	mg/kg	07.23.2020 16:15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 13:15	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.23.2020 15:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.23.2020 15:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.23.2020 15:11	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	07.23.2020 15:11	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.23.2020 15:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	07.23.2020 15:11	
o-Terphenyl	84-15-1	111	%	70-135	07.23.2020 15:11	

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Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH04B**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667958-004	Date Collected:	07.16.2020 12:54	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.23.2020 16:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.23.2020 16:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.23.2020 16:14	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.23.2020 16:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.23.2020 16:14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.23.2020 16:14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.23.2020 16:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	07.23.2020 16:14	
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.23.2020 16:14	

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Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH05B**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667958-005	Date Collected:	07.16.2020 14:13	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**47.4**	10.1	mg/kg	07.23.2020 16:21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 13:15	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	07.23.2020 15:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	07.23.2020 15:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	07.23.2020 15:31	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	07.23.2020 15:31	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	07.23.2020 15:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	07.23.2020 15:31	
o-Terphenyl	84-15-1	111	%	70-135	07.23.2020 15:31	

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Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH05B**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667958-005	Date Collected:	07.16.2020 14:13	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.23.2020 16:34	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.23.2020 16:34	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.23.2020 16:34	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.23.2020 16:34	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.23.2020 16:34	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.23.2020 16:34	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.23.2020 16:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	07.23.2020 16:34	
4-Bromofluorobenzene	460-00-4	101	%	70-130	07.23.2020 16:34	

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Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH06B**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667958-006	Date Collected:	07.16.2020 14:41	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132524				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**37.9**	10.1	mg/kg	07.23.2020 16:37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	07.23.2020 13:15	Basis:	Wet Weight
Seq Number:	3132503				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.23.2020 15:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.23.2020 15:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.23.2020 15:51	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	07.23.2020 15:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.23.2020 15:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	07.23.2020 15:51	
o-Terphenyl	84-15-1	107	%	70-135	07.23.2020 15:51	

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Certificate of Analytical Results 667958

LT Environmental, Inc., Arvada, CO

PLU PC 17 TB

Sample Id:	**PH06B**	Matrix:	Soil	Date Received:	07.22.2020 16:32
Lab Sample Id:	667958-006	Date Collected:	07.16.2020 14:41	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	07.23.2020 13:45	Basis:	Wet Weight
Seq Number:	3132516				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.23.2020 16:55	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.23.2020 16:55	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.23.2020 16:55	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.23.2020 16:55	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.23.2020 16:55	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.23.2020 16:55	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.23.2020 16:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	07.23.2020 16:55	
1,4-Difluorobenzene	540-36-3	103	%	70-130	07.23.2020 16:55	

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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

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QC Summary 667958

LT Environmental, Inc.

PLU PC 17 TB

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3132524 — Matrix: Solid — Date Prep: 07.23.2020
MB Sample Id: 7707935-1-BLK — LCS Sample Id: 7707935-1-BKS — LCSD Sample Id: 7707935-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	264	106	273	109	90-110	3	20	mg/kg	07.23.2020 15:36	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3132524 — Matrix: Soil — Date Prep: 07.23.2020
Parent Sample Id: 667958-001 — MS Sample Id: 667958-001 S — MSD Sample Id: 667958-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	318	201	513	97	517	100	90-110	1	20	mg/kg	07.23.2020 15:52	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3132524 — Matrix: Soil — Date Prep: 07.23.2020
Parent Sample Id: 667959-004 — MS Sample Id: 667959-004 S — MSD Sample Id: 667959-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	156	201	367	105	367	105	90-110	0	20	mg/kg	07.23.2020 17:05	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3132503 — Matrix: Solid — Date Prep: 07.23.2020
MB Sample Id: 7707980-1-BLK — LCS Sample Id: 7707980-1-BKS — LCSD Sample Id: 7707980-1-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	942	94	984	98	70-135	4	35	mg/kg	07.23.2020 12:50	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1110	111	70-135	6	35	mg/kg	07.23.2020 12:50	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		123		124		70-135	%	07.23.2020 12:50
o-Terphenyl	122		111		120		70-135	%	07.23.2020 12:50

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3132503 — Matrix: Solid — Date Prep: 07.23.2020
MB Sample Id: 7707980-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	07.23.2020 12:30	

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

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

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

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QC Summary 667958

LT Environmental, Inc.

PLU PC 17 TB

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3132503 Matrix: Soil Date Prep: 07.23.2020
Parent Sample Id: 667958-001 MS Sample Id: 667958-001 S MSD Sample Id: 667958-001 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	977	98	986	98	70-135	1	35	mg/kg	07.23.2020 13:50	
Diesel Range Organics (DRO)	<50.1	1000	1070	107	1090	108	70-135	2	35	mg/kg	07.23.2020 13:50	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		127		70-135	%	07.23.2020 13:50
o-Terphenyl	116		119		70-135	%	07.23.2020 13:50

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3132516 Matrix: Solid Date Prep: 07.23.2020
MB Sample Id: 7707934-1-BLK LCS Sample Id: 7707934-1-BKS LCSD Sample Id: 7707934-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.102	102	0.103	103	70-130	1	35	mg/kg	07.23.2020 13:16	
Toluene	<0.00200	0.100	0.0973	97	0.0982	98	70-130	1	35	mg/kg	07.23.2020 13:16	
Ethylbenzene	<0.00200	0.100	0.102	102	0.104	104	71-129	2	35	mg/kg	07.23.2020 13:16	
m,p-Xylenes	<0.00400	0.200	0.209	105	0.211	106	70-135	1	35	mg/kg	07.23.2020 13:16	
o-Xylene	<0.00200	0.100	0.103	103	0.104	104	71-133	1	35	mg/kg	07.23.2020 13:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		98		96		70-130	%	07.23.2020 13:16
4-Bromofluorobenzene	108		98		100		70-130	%	07.23.2020 13:16

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3132516 Matrix: Soil Date Prep: 07.23.2020
Parent Sample Id: 667958-001 MS Sample Id: 667958-001 S MSD Sample Id: 667958-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.102	101	0.108	108	70-130	6	35	mg/kg	07.23.2020 13:57	
Toluene	<0.00202	0.101	0.0972	96	0.103	103	70-130	6	35	mg/kg	07.23.2020 13:57	
Ethylbenzene	<0.00202	0.101	0.101	100	0.107	107	71-129	6	35	mg/kg	07.23.2020 13:57	
m,p-Xylenes	<0.00403	0.202	0.207	102	0.218	109	70-135	5	35	mg/kg	07.23.2020 13:57	
o-Xylene	<0.00202	0.101	0.103	102	0.108	108	71-133	5	35	mg/kg	07.23.2020 13:57	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		98		70-130	%	07.23.2020 13:57
4-Bromofluorobenzene	104		101		70-130	%	07.23.2020 13:57

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

Chain of Custody

XENCO LABORATORIES

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 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Work Order No: 1e1e7 958

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian Office	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	PLU PC 17 TB	Turn Around	
Project Number:	012920085	Routine	☑
Project Location	Eddy county	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temperature (°C):	1.4 / 1.4	Temp Blank:	(Yes) No
Received Intact:	(Yes) No	Wet Ice:	(Yes) No
Cooler Custody Seals:	(Yes) No N/A	Thermometer ID	T-NM-007
Sample Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
		Total Containers:	6

ANALYSIS REQUEST

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	TPH (EPA 8015)	BTEX (EPA D=8021)	Chloride (EPA 300.0)
	PH01B	S	7/16/20	1051	3'	1		X	X	X
	PH02B			1124	3'					
	PH03B			1219	4'					
	PH04B			1254	3'					
	PH05B			1413	3'					
	PH06B			1441	3'					

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

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

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 Tl 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 Tl 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
		7/22/20 10:32	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07.22.2020 04.32.00 PM

Work Order #: 667958

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)?	1.4	
#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**	Samples received in bulk containers.
#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: 07.22.2020

Checklist reviewed by: Jessica Kramer Date: 07.23.2020

Jessica Kramer