LT Environmental, Inc.
3300 North "A" Street
Building 1, Unit 103
Midland, Texas 79705
432.704.5178

January 9, 2019

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

RE: Closure Request
Poker Lake CVX JV PC #011H
Remediation Permit Number 2RP-5029
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following letter report detailing excavation of impacted soil and confirmation soil sampling activities at the Poker Lake CVX JV PC #011H (Site) located in Unit F, Section 20, Township 24 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the soil sampling and excavation activities was to address impact to soil after the steel flow line developed a leak due to corrosion, causing the release of 2.5 barrels (bbls) of crude oil and 7.8 bbls of produced water onto the surface of the right-of-way (ROW) and adjacent pasture. The release was discovered on October 11, 2018. Free standing fluids were recovered and disposed of at an approved disposal facility. Approximately 1.2 bbls of crude oil and 3.8 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on October 26, 2018, and was assigned Remediation Permit (RP) Number 2RP-5029 (Attachment 1). Based on the excavation activities and results of the confirmation soil sampling events, XTO is requesting no further action for this release.

BACKGROUND

The source of the release is located at latitude 32.20571 degrees (°) and longitude -103.90450°. The release occurred after August 14, 2018; therefore, LTE characterized the Site and applied Table 1, the *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 218 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well with depth to water data is C 02108, located approximately 1.8 miles north of the Site, with a depth to groundwater of 186 feet and a total depth of 200 feet. The water well is approximately 41 feet lower in elevation than the Site. The closest surface water to the Site is an unnamed dry wash located approximately 424 feet north 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. Based on these criteria, the following NMOCD Table 1 closure criteria apply: 10 milligrams per kilogram (mg/kg) benzene; 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX); 2,500 mg/kg total petroleum hydrocarbons (TPH); 1,000 mg/kg TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO); and 20,000 mg/kg chloride. A closure criteria of 600 mg/kg chloride was applied to the undeveloped pasture that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

EXCAVATION

On November 13, 2018, LTE personnel inspected the Site and observed surface hydrocarbon staining in the ROW and north onto the pasture. The release extent was mapped using a handheld Global Positing System (GPS) unit and is depicted on Figure 2.

Excavation activities were initiated immediately. During the period from November 29 through December 4, 2018, LTE personnel oversaw excavation along the release footprint located within and north of the ROW, between a high-pressure natural gas pipeline and a crude oil pipeline (Figure 2).Excavation depths ranged from 8 feet bgs in the eastern release area and 2 feet bgs in the western extent of the excavation.

Following removal of impacted soil, LTE collected 5-point composite soil samples from the floor and sidewalls of the excavation. Each composite sample represented 200 square feet of the excavation. The 5-point composite samples were collected by depositing 5 aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thorough mixing. LTE collected composite floor samples (FS01 through FS13) at depths between 2 feet and 8 feet bgs and composite sidewall samples (SW01 through SW12) from depths between 0 feet to 8 feet bgs. Composite soil samples SS02 through SS05 were collected at the release terminus south of the pipelines between 0 feet and 2 feet bgs and included sidewall and floor composite aliquots (Figure 2).

The soil samples were screened for volatile aromatic hydrocarbons and chlorides using a photo-ionization detector (PID) and Hach® chloride QuanTab® test strips. The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler, method of analysis, and immediately placed on ice. The soil samples were shipped at 4 degrees Celsius (°C) under strict chain-of-custody procedures to Xenco Laboratories (Xenco) in Midland, Texas, for analysis of BTEX by United States Environmental Protection Agency (USEPA) Method 8021B, TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) by USEPA Method 8015M/D, and chloride by USEPA Method 300.0.

The excavation measured approximately 8,460 square feet in area. The horizontal extent of the excavation is illustrated on Figure 2. The southwestern excavation boundaries depicted on Figure

2 were smaller than the release area since field screening and laboratory analytical results did not exceed NMOCD Table 1 closure criteria. Approximately 2,733 cubic yards of impacted soil were removed from the excavation. The impacted soil was transported and properly disposed of at the Red Bluff R360 Landfill Facility in Orla, Texas.

ANALYTICAL RESULTS

Laboratory analytical results for all soil samples collected as part of this investigation were compliant with NMOCD Table 1 closure criteria for BTEX, TPH, and chloride. Laboratory analytical results are summarized in Table 1 and Figure 2, and the laboratory analytical reports are included in Attachment 2.

CONCLUSIONS

The impacted soil was excavated from the release area and laboratory analytical results for the confirmation soil samples indicate that BTEX, TPH, and chloride concentrations are compliant with the NMOCD Table 1 closure criteria and NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation. Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. XTO requests no further action for this release. Upon approval of the no further action request, XTO will backfill the excavation with material purchased locally, recontour the Site to match pre-existing site conditions, and reseed with Bureau of Land Management (BLM) mixture #2. An updated NMOCD Form C-141 is included as Attachment 1. A photographic log of the Site is included as Attachment 3.

If you have any questions or comments, please do not hesitate to contact Ms. Adrian Baker at (432) 887-1255 or abaker@ltenv.com.

Sincerely,

LT ENVIRONMENTAL, INC.

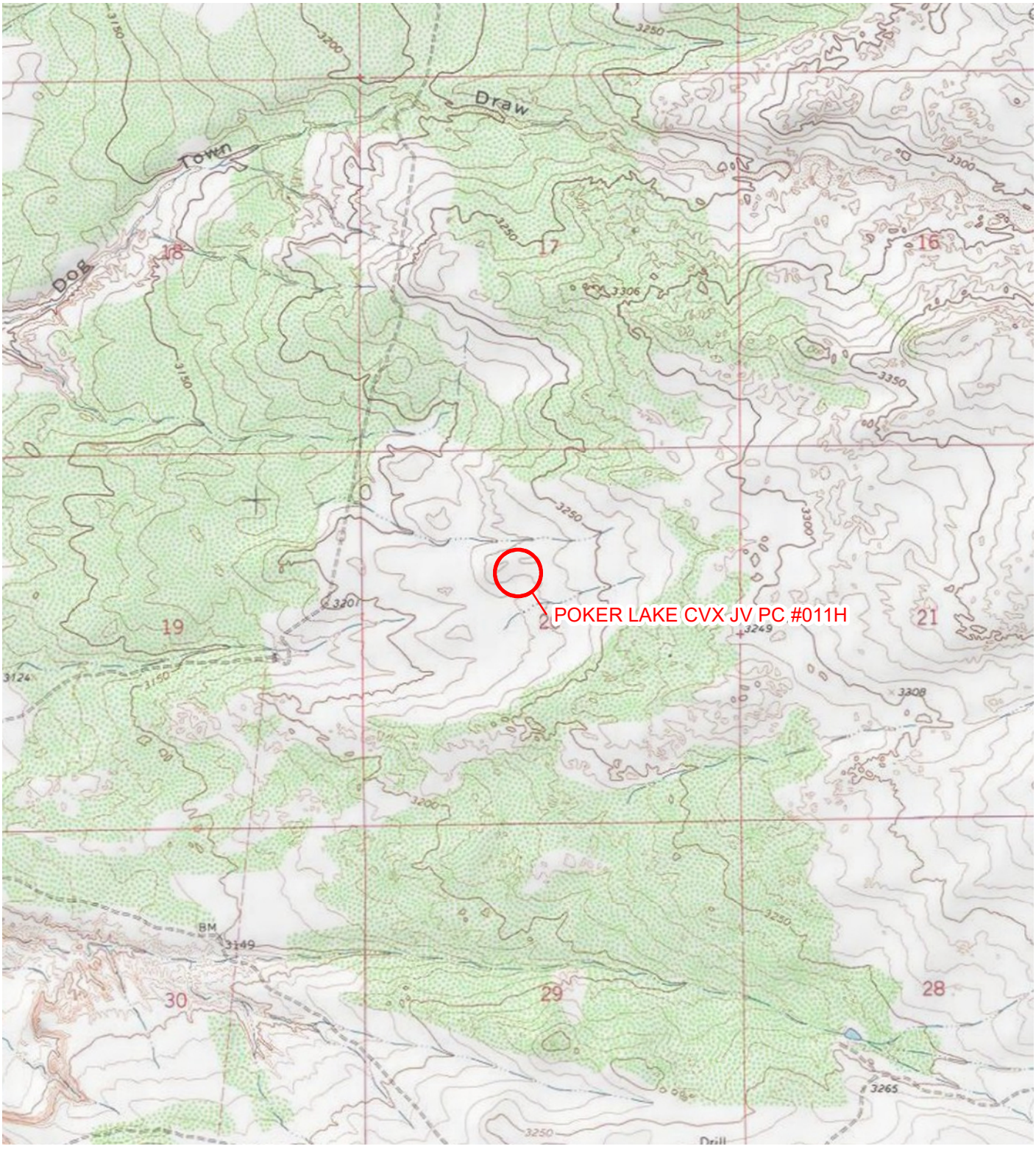
Adrian Baker
Project Geologist

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

cc: Kyle Littrell, XTO
Shelly Tucker, BLM
Robert Hamlet, NMOCD

Attachments:

Figure 1	Site Location Map
Figure 2	Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Initial/Final NMOCD Form C-141 (2RP-5029)
Attachment 2	Laboratory Analytical Reports
Attachment 3	Photographic Log



LEGEND

SITE LOCATION

IMAGE COURTESY OF ESRI/USGS

0 2,000 4,000

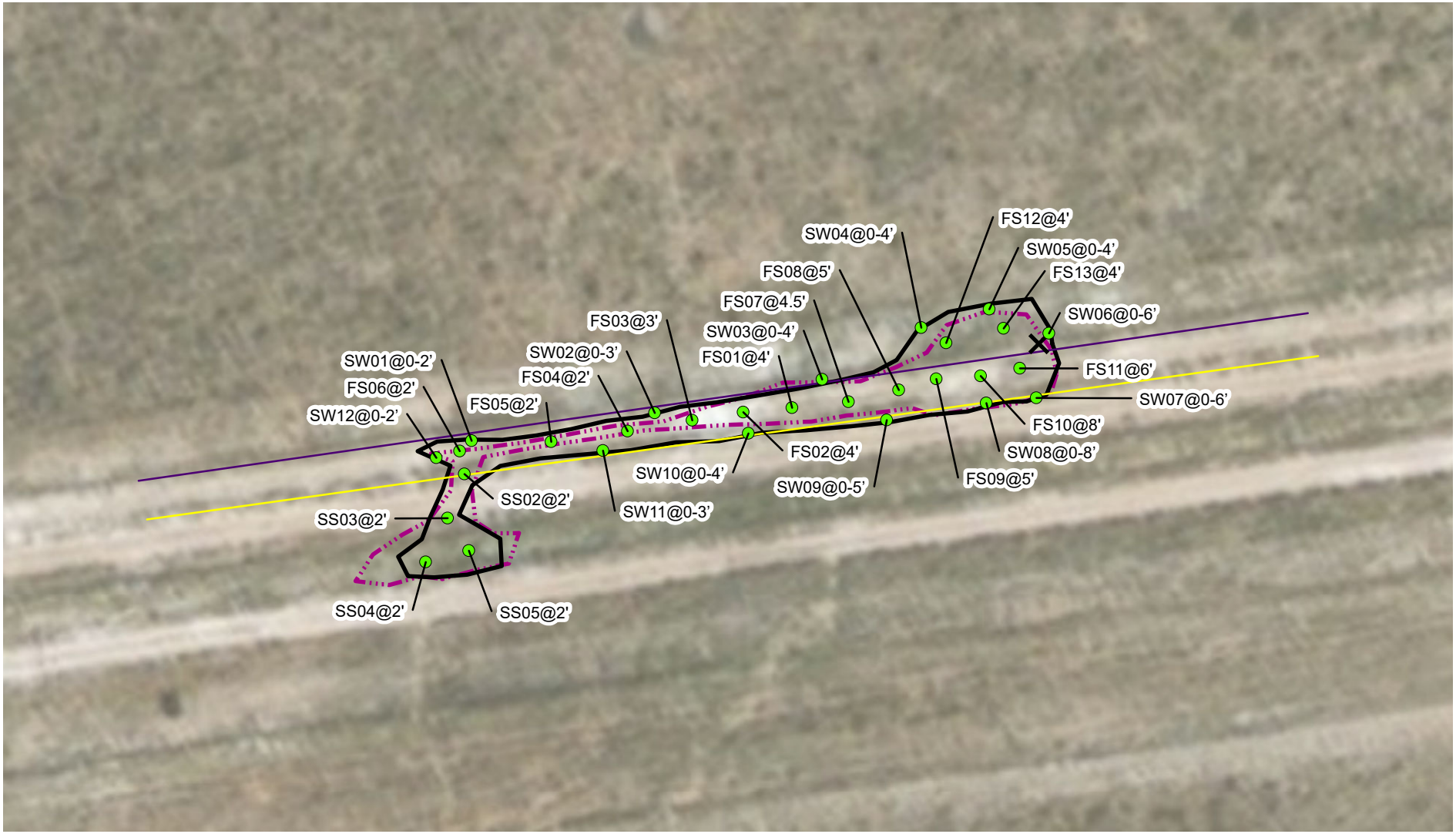
Feet

N

NOTE: REMEDIATION PERMIT NUMBER 2RP-5029

FIGURE 1
SITE LOCATION MAP
POKER LAKE CVX JV PC #011H
UNIT F SEC 20 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918167_POKER LAKE CVX JV PC #011H\012918167_FIG01_SL_2018_5029.mxd



LEGEND

- RELEASE LOCATION
- FINAL CONFIRMATION SOIL SAMPLE
- XTO 3" FLOWLINE @ 3'- 3.5' BGS
- XTO 6" GAS LINE @ 5' BGS
- EXCAVATION EXTENT
- RELEASE EXTENT

BGS: BELOW GROUND SURFACE

NOTE: REMEDIATION PERMIT NUMBER 2RP-5029

IMAGE COURTESY OF ESRI

0 60 120

Feet

N

FIGURE 2
SOIL SAMPLE LOCATIONS
POKER LAKE CVX JV PC #011H
UNIT F SEC 20 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918167_POKER LAKE CVX JV PC #011H\012918167_FIG02_SITE_2018_5029.mxd

TABLE 1
SOIL ANALYTICAL RESULTS

POKER LAKE CVX JV PC #011H
REMEDIATION PERMIT NUMBER 2RP-5029
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	C6-C10 GRO (mg/kg)	C10-C28 DRO (mg/kg)	C28-C40 ORO (mg/kg)	GRO and DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
FS01	4	11/29/2018	<0.0192	<0.0192	<0.0192	<0.0192	<0.0192	<15.0	<15.0	<15.0	<15.0	<15.0	344
FS02	4	11/29/2018	<0.0190	<0.0190	<0.0190	<0.0190	<0.0190	<15.0	<15.0	<15.0	<15.0	<15.0	160
FS03	3	11/29/2018	<0.0198	<0.0198	<0.0198	<0.0198	<0.0198	<15.0	<15.0	<15.0	<15.0	<15.0	163
FS04	2	11/29/2018	<0.0196	<0.0196	<0.0196	<0.0196	<0.0196	<15.0	<15.0	<15.0	<15.0	<15.0	109
FS05	2	11/29/2018	<0.0200	<0.0200	<0.0200	0.0718	0.0718	<15.0	<15.0	<15.0	<15.0	<15.0	40.1
FS06	2	11/29/2018	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<15.0	<15.0	<15.0	<15.0	<15.0	116
FS07	4.5	12/03/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	87.0
FS08	5	12/03/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	23.8	<15.0	23.8	23.8	384
FS09	5	12/03/2018	<0.00204	<0.00204	<0.00204	<0.00204	<0.00204	<15.0	30.3	<15.0	30.3	30.3	417
SS02	2	12/03/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	27.9	<15.0	27.9	27.9	335
SS03	2	12/03/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	49.7
SS04	2	12/03/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	36.4	<14.9	36.4	36.4	45.7
SS05	2	12/03/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	21.7
SW01	0 - 2	12/03/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	94.9	<15.0	94.9	94.9	86.8
SW02	0 - 3	12/03/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	54.0	<15.0	54.0	54.0	169
SW03	0 - 4	12/03/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	85.6	<15.0	85.6	85.6	81.4
FS10	8	12/03/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	230
FS11	6	12/03/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	337
FS12	4	12/04/2018	<0.00200	<0.00200	<0.00200	0.00282	0.00282	15.0	242	24.6	257	282	153
FS13	4	12/04/2018	<0.00200	<0.00200	<0.00200	0.00538	0.00538	22.4	377	33.2	399	433	333
SW04	0 - 4	12/04/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	32.1
SW05	0 - 4	12/04/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	23.6
SW06	0 - 6	12/04/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	128	<15.0	128	128	191
SW07	0 - 6	12/04/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	407
SW08	0 - 8	12/04/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	505
SW09	0 - 5	12/04/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	61.6
SW10	0 - 4	12/04/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	54.9	<15.0	54.9	54.9	43.7

TABLE 1 (Continued)
SOIL ANALYTICAL RESULTS

POKER LAKE CVX JV PC #011H
REMEDIATION PERMIT NUMBER 2RP-5029
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	C6-C10 GRO (mg/kg)	C10-C28 DRO (mg/kg)	C28-C40 ORO (mg/kg)	GRO and DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SW11	0 - 3	12/04/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	22.3	<15.0	22.3	22.3	21.9
SW12	0 - 2	12/04/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	97.3	<15.0	97.3	97.3	19.2
NMOCD Remediation Action Levels			10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	20,000

Notes:
bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
mg/kg - milligrams per kilogram
NE - not established
NMOCD - New Mexico Oil Conservation Division
DRO - diesel range organics
GRO - gasoline range organics
ORO - oil range organics
TPH - total petroleum hydrocarbons
< - indicates result is below laboratory reporting limits
Bold - indicates result exceeds the applicable regulatory standard

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	NMAP1830762934
District RP	2 RP-5029
Facility ID	N/A
Application ID	pMAP1830762532

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)* NMAP1830762934
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.20571 Longitude -103.90450

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Poker Lake CVX JV PC #011H	Site Type Production Well Flow Line
Date Release Discovered 10/11/2018	API# *(if applicable)* 30-015-39768

Unit Letter	Section	Township	Range	County
F	20	24S	30E	Eddy

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

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) 2.5	Volume Recovered (bbls) 1.2
☒ Produced Water	Volume Released (bbls) 7.8	Volume Recovered (bbls) 3.8
	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

The steel flow line developed a leak due to corrosion. Free standing fluids were recovered and removed to an approved disposal facility. The flow line was clamped until repairs can be made.

Note: Calculation sheet attached

State of New Mexico
Oil Conservation Division

Incident ID	NMAP1830762934
District RP	2 RP-5029
Facility ID	N/A
Application ID	pMAP1830762532

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

Initial Response

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

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

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

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 Coordinator

Signature: [signature] Date: 10/26/2018

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

OCD Only

Received by: [signature] Date: 11/03/18

State of New Mexico
Oil Conservation Division

Incident ID	NMAP1830762934
District RP	2 RP-5029
Facility ID	N/A
Application ID	pMAP1830762532

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	NMAP1830762934
District RP	2RP-5029
Facility ID	N/A
Application ID	pMAP1830762532

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 Coordinator

Signature: Date: 10/26/2018

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

OCD Only

Received by: Date:

Location:	Poker Lake CVX PC 11H (30-015-39768)	
Spill Date:	10/11/2018	

Length of Spill=	239.00	feet
Width of Spill=	3.00	feet
Saturation (or depth) of Spill=	5.00	inches
Approximate Oil %	24	
Porosity Factor=	0.10	
Volume Picked up	5.00	bbls

VOLUME OF LEAK		
Total Oil=	2.5	barrels
Total Produced Water=	7.8	barrels

VOLUME RECOVERED

Total Oil=	1.2	barrels
Total Produced Water=	3.8	barrels

State of New Mexico
Oil Conservation Division

Incident ID	NMAP1830762934
District RP	2RP-5029
Facility ID	N/A
Application ID	pMAP1830762532

Closure

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

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

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

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

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

[X] Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Coordinator

Signature: Date: 01-09-2019

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

OCD Only

Received by: Date:

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

Closure Approved by: Date:

Printed Name: Title:

Analytical Report 607383

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU-CVX-JV PC 11 H

2RP-5029

10-DEC-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

10-DEC-18

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

Reference: XENCO Report No(s): **607383**
PLU-CVX-JV PC 11 H
Project Address: Delaware Basin

Adrian Baker:

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) 607383. 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. 607383 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 Assistant

Sample Cross Reference 607383

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV PC 11 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	11-29-18 09:50	4 ft	607383-001
FS02	S	11-29-18 10:15	4 ft	607383-002
FS03	S	11-29-18 10:30	3 ft	607383-003
FS04	S	11-29-18 11:20	2 ft	607383-004
FS05	S	11-29-18 12:00	2 ft	607383-005
FS06	S	11-29-18 14:10	2 ft	607383-006

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3071815 BTEX by EPA 8021B

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

Certificate of Analysis Summary 607383

LT Environmental, Inc., Arvada, CO

Project Name: PLU-CVX-JV PC 11 H

Project Id: 2RP-5029
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Tue Dec-04-18 01:05 pm
Report Date: 10-DEC-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	607383-001		607383-002		607383-003		607383-004		607383-005		607383-006	
	Field Id:	FS01		FS02		FS03		FS04		FS05		FS06	
	Depth:	4- ft		4- ft		3- ft		2- ft		2- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-29-18 09:50		Nov-29-18 10:15		Nov-29-18 10:30		Nov-29-18 11:20		Nov-29-18 12:00		Nov-29-18 14:10	
BTEX by EPA 8021B SUB: T104704219-18-18	***Extracted:***	Dec-05-18 12:25		Dec-05-18 12:25		Dec-05-18 12:25		Dec-05-18 12:25		Dec-05-18 12:25		Dec-05-18 12:25	
	Analyzed:	Dec-06-18 00:37		Dec-06-18 02:24		Dec-06-18 02:51		Dec-06-18 03:18		Dec-06-18 03:45		Dec-06-18 04:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0192	0.0192	<0.0190	0.0190	<0.0198	0.0198	<0.0196	0.0196	<0.0200	0.0200	<0.0200	0.0200
Toluene		<0.0192	0.0192	<0.0190	0.0190	<0.0198	0.0198	<0.0196	0.0196	<0.0200	0.0200	<0.0200	0.0200
Ethylbenzene		<0.0192	0.0192	<0.0190	0.0190	<0.0198	0.0198	<0.0196	0.0196	<0.0200	0.0200	<0.0200	0.0200
m,p-Xylenes		<0.0384	0.0384	<0.0380	0.0380	<0.0395	0.0395	<0.0393	0.0393	0.0459	0.0399	<0.0400	0.0400
o-Xylene		<0.0192	0.0192	<0.0190	0.0190	<0.0198	0.0198	<0.0196	0.0196	0.0259	0.0200	<0.0200	0.0200
Total Xylenes		<0.0192	0.0192	<0.0190	0.0190	<0.0198	0.0198	<0.0196	0.0196	0.0718	0.0200	<0.0200	0.0200
Total BTEX		<0.0192	0.0192	<0.0190	0.0190	<0.0198	0.0198	<0.0196	0.0196	0.0718	0.0200	<0.0200	0.0200
Inorganic Anions by EPA 300	***Extracted:***	Dec-05-18 11:00		Dec-05-18 11:00		Dec-05-18 11:00		Dec-05-18 11:00		Dec-06-18 09:00		Dec-06-18 09:00	
	Analyzed:	Dec-05-18 14:48		Dec-05-18 16:14		Dec-05-18 17:28		Dec-05-18 17:35		Dec-07-18 09:01		Dec-07-18 09:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		344	5.03	160	5.03	163	5.03	109	4.95	40.1	4.95	116	24.9
TPH by SW8015 Mod	***Extracted:***	Dec-04-18 16:00		Dec-04-18 16:00		Dec-04-18 16:00		Dec-04-18 16:00		Dec-04-18 16:00		Dec-04-18 16:00	
	Analyzed:	Dec-05-18 01:41		Dec-05-18 02:00		Dec-05-18 02:20		Dec-05-18 02:39		Dec-05-18 03:37		Dec-05-18 03:56	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analytical Results 607383

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV PC 11 H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	12.04.18 13.05
Lab Sample Id:	607383-001	Date Collected:	11.29.18 09.50	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.05.18 11.00	Basis:	Wet Weight
Seq Number:	3071841				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**344**	5.03	mg/kg	12.05.18 14.48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.04.18 16.00	Basis:	Wet Weight
Seq Number:	3071739				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.05.18 01.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.05.18 01.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.05.18 01.41	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.05.18 01.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	12.05.18 01.41	
o-Terphenyl	84-15-1	91	%	70-135	12.05.18 01.41	

Certificate of Analytical Results 607383

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV PC 11 H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	12.04.18 13.05
Lab Sample Id:	607383-001	Date Collected:	11.29.18 09.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	12.05.18 12.25	Basis:	Wet Weight
Seq Number:	3071815			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0192	0.0192	mg/kg	12.06.18 00.37	U	1
Toluene	108-88-3	<0.0192	0.0192	mg/kg	12.06.18 00.37	U	1
Ethylbenzene	100-41-4	<0.0192	0.0192	mg/kg	12.06.18 00.37	U	1
m,p-Xylenes	179601-23-1	<0.0384	0.0384	mg/kg	12.06.18 00.37	U	1
o-Xylene	95-47-6	<0.0192	0.0192	mg/kg	12.06.18 00.37	U	1
Total Xylenes	1330-20-7	<0.0192	0.0192	mg/kg	12.06.18 00.37	U	1
Total BTEX		<0.0192	0.0192	mg/kg	12.06.18 00.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	68-120	12.06.18 00.37	
a,a,a-Trifluorotoluene	98-08-8	92	%	71-121	12.06.18 00.37	

Certificate of Analytical Results 607383

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV PC 11 H

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	12.04.18 13.05
Lab Sample Id:	607383-002	Date Collected:	11.29.18 10.15	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.05.18 11.00	Basis:	Wet Weight
Seq Number:	3071841				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**160**	5.03	mg/kg	12.05.18 16.14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.04.18 16.00	Basis:	Wet Weight
Seq Number:	3071739				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.05.18 02.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.05.18 02.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.05.18 02.00	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.05.18 02.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	12.05.18 02.00	
o-Terphenyl	84-15-1	92	%	70-135	12.05.18 02.00	

Certificate of Analytical Results 607383

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV PC 11 H

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	12.04.18 13.05
Lab Sample Id:	607383-002	Date Collected:	11.29.18 10.15	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	12.05.18 12.25	Basis:	Wet Weight
Seq Number:	3071815			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0190	0.0190	mg/kg	12.06.18 02.24	U	1
Toluene	108-88-3	<0.0190	0.0190	mg/kg	12.06.18 02.24	U	1
Ethylbenzene	100-41-4	<0.0190	0.0190	mg/kg	12.06.18 02.24	U	1
m,p-Xylenes	179601-23-1	<0.0380	0.0380	mg/kg	12.06.18 02.24	U	1
o-Xylene	95-47-6	<0.0190	0.0190	mg/kg	12.06.18 02.24	U	1
Total Xylenes	1330-20-7	<0.0190	0.0190	mg/kg	12.06.18 02.24	U	1
Total BTEX		<0.0190	0.0190	mg/kg	12.06.18 02.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	68-120	12.06.18 02.24	
a,a,a-Trifluorotoluene	98-08-8	96	%	71-121	12.06.18 02.24	

Certificate of Analytical Results 607383

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV PC 11 H

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	12.04.18 13.05
Lab Sample Id:	607383-003	Date Collected:	11.29.18 10.30	Sample Depth:	3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.05.18 11.00	Basis:	Wet Weight
Seq Number:	3071841				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**163**	5.03	mg/kg	12.05.18 17.28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.04.18 16.00	Basis:	Wet Weight
Seq Number:	3071739				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.05.18 02.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.05.18 02.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.05.18 02.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.05.18 02.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.05.18 02.20	
o-Terphenyl	84-15-1	93	%	70-135	12.05.18 02.20	

Certificate of Analytical Results 607383

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV PC 11 H

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	12.04.18 13.05
Lab Sample Id:	607383-003	Date Collected:	11.29.18 10.30	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	12.05.18 12.25	Basis:	Wet Weight
Seq Number:	3071815			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0198	0.0198	mg/kg	12.06.18 02.51	U	1
Toluene	108-88-3	<0.0198	0.0198	mg/kg	12.06.18 02.51	U	1
Ethylbenzene	100-41-4	<0.0198	0.0198	mg/kg	12.06.18 02.51	U	1
m,p-Xylenes	179601-23-1	<0.0395	0.0395	mg/kg	12.06.18 02.51	U	1
o-Xylene	95-47-6	<0.0198	0.0198	mg/kg	12.06.18 02.51	U	1
Total Xylenes	1330-20-7	<0.0198	0.0198	mg/kg	12.06.18 02.51	U	1
Total BTEX		<0.0198	0.0198	mg/kg	12.06.18 02.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	68-120	12.06.18 02.51	
a,a,a-Trifluorotoluene	98-08-8	86	%	71-121	12.06.18 02.51	

Certificate of Analytical Results 607383

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV PC 11 H

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	12.04.18 13.05
Lab Sample Id:	607383-004	Date Collected:	11.29.18 11.20	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.05.18 11.00	Basis:	Wet Weight
Seq Number:	3071841				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**109**	4.95	mg/kg	12.05.18 17.35		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.04.18 16.00	Basis:	Wet Weight
Seq Number:	3071739				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.05.18 02.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.05.18 02.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.05.18 02.39	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.05.18 02.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	12.05.18 02.39	
o-Terphenyl	84-15-1	92	%	70-135	12.05.18 02.39	

Certificate of Analytical Results 607383

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV PC 11 H

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	12.04.18 13.05
Lab Sample Id:	607383-004	Date Collected:	11.29.18 11.20	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	12.05.18 12.25	Basis:	Wet Weight
Seq Number:	3071815			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0196	0.0196	mg/kg	12.06.18 03.18	U	1
Toluene	108-88-3	<0.0196	0.0196	mg/kg	12.06.18 03.18	U	1
Ethylbenzene	100-41-4	<0.0196	0.0196	mg/kg	12.06.18 03.18	U	1
m,p-Xylenes	179601-23-1	<0.0393	0.0393	mg/kg	12.06.18 03.18	U	1
o-Xylene	95-47-6	<0.0196	0.0196	mg/kg	12.06.18 03.18	U	1
Total Xylenes	1330-20-7	<0.0196	0.0196	mg/kg	12.06.18 03.18	U	1
Total BTEX		<0.0196	0.0196	mg/kg	12.06.18 03.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	68-120	12.06.18 03.18	
a,a,a-Trifluorotoluene	98-08-8	99	%	71-121	12.06.18 03.18	

Certificate of Analytical Results 607383

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV PC 11 H

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	12.04.18 13.05
Lab Sample Id:	607383-005	Date Collected:	11.29.18 12.00	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.06.18 09.00	Basis:	Wet Weight
Seq Number:	3072190				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**40.1**	4.95	mg/kg	12.07.18 09.01		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.04.18 16.00	Basis:	Wet Weight
Seq Number:	3071739				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.05.18 03.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.05.18 03.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.05.18 03.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.05.18 03.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	12.05.18 03.37	
o-Terphenyl	84-15-1	87	%	70-135	12.05.18 03.37	

Certificate of Analytical Results 607383

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV PC 11 H

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	12.04.18 13.05
Lab Sample Id:	607383-005	Date Collected:	11.29.18 12.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	12.05.18 12.25	Basis:	Wet Weight
Seq Number:	3071815			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0200	0.0200	mg/kg	12.06.18 03.45	U	1
Toluene	108-88-3	<0.0200	0.0200	mg/kg	12.06.18 03.45	U	1
Ethylbenzene	100-41-4	<0.0200	0.0200	mg/kg	12.06.18 03.45	U	1
m,p-Xylenes	179601-23-1	**0.0459**	0.0399	mg/kg	12.06.18 03.45		1
o-Xylene	95-47-6	**0.0259**	0.0200	mg/kg	12.06.18 03.45		1
Total Xylenes	1330-20-7	**0.0718**	0.0200	mg/kg	12.06.18 03.45		1
Total BTEX		**0.0718**	0.0200	mg/kg	12.06.18 03.45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	68-120	12.06.18 03.45	
a,a,a-Trifluorotoluene	98-08-8	90	%	71-121	12.06.18 03.45	

Certificate of Analytical Results 607383

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV PC 11 H

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	12.04.18 13.05
Lab Sample Id:	607383-006	Date Collected:	11.29.18 14.10	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.06.18 09.00	Basis:	Wet Weight
Seq Number:	3072190				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**116**	24.9	mg/kg	12.07.18 09.19		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.04.18 16.00	Basis:	Wet Weight
Seq Number:	3071739				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.05.18 03.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.05.18 03.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.05.18 03.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.05.18 03.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.05.18 03.56	
o-Terphenyl	84-15-1	104	%	70-135	12.05.18 03.56	

Certificate of Analytical Results 607383

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV PC 11 H

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	12.04.18 13.05
Lab Sample Id:	607383-006	Date Collected:	11.29.18 14.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	12.05.18 12.25	Basis:	Wet Weight
Seq Number:	3071815			SUB:	T104704219-18-18

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0200	0.0200	mg/kg	12.06.18 04.12	U	1
Toluene	108-88-3	<0.0200	0.0200	mg/kg	12.06.18 04.12	U	1
Ethylbenzene	100-41-4	<0.0200	0.0200	mg/kg	12.06.18 04.12	U	1
m,p-Xylenes	179601-23-1	<0.0400	0.0400	mg/kg	12.06.18 04.12	U	1
o-Xylene	95-47-6	<0.0200	0.0200	mg/kg	12.06.18 04.12	U	1
Total Xylenes	1330-20-7	<0.0200	0.0200	mg/kg	12.06.18 04.12	U	1
Total BTEX		<0.0200	0.0200	mg/kg	12.06.18 04.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	68-120	12.06.18 04.12	
a,a,a-Trifluorotoluene	98-08-8	91	%	71-121	12.06.18 04.12	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 607383

LT Environmental, Inc.

PLU-CVX-JV PC 11 H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3071841 Matrix: Solid Date Prep: 12.05.18
MB Sample Id: 7667390-1-BLK LCS Sample Id: 7667390-1-BKS LCSD Sample Id: 7667390-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	255	102	253	101	90-110	1	20	mg/kg	12.05.18 09:53	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072190 Matrix: Solid Date Prep: 12.06.18
MB Sample Id: 7667461-1-BLK LCS Sample Id: 7667461-1-BKS LCSD Sample Id: 7667461-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	251	100	262	105	90-110	4	20	mg/kg	12.07.18 08:48	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3071841 Matrix: Soil Date Prep: 12.05.18
Parent Sample Id: 607383-001 MS Sample Id: 607383-001 S MSD Sample Id: 607383-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	344	252	584	95	586	96	90-110	0	20	mg/kg	12.05.18 14:54	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3071841 Matrix: Soil Date Prep: 12.05.18
Parent Sample Id: 607383-002 MS Sample Id: 607383-002 S MSD Sample Id: 607383-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	160	252	414	101	429	107	90-110	4	20	mg/kg	12.05.18 16:21	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072190 Matrix: Soil Date Prep: 12.06.18
Parent Sample Id: 607336-041 MS Sample Id: 607336-041 S MSD Sample Id: 607336-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	62.8	248	304	97	347	115	90-110	13	20	mg/kg	12.07.18 10:33	X

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

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

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

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

QC Summary 607383

LT Environmental, Inc.

PLU-CVX-JV PC 11 H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072190 Matrix: Soil Date Prep: 12.06.18
Parent Sample Id: 607383-005 MS Sample Id: 607383-005 S MSD Sample Id: 607383-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	40.1	248	306	107	306	107	90-110	0	20	mg/kg	12.07.18 09:07	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3071739 Matrix: Solid Date Prep: 12.04.18
MB Sample Id: 7667398-1-BLK LCS Sample Id: 7667398-1-BKS LCSD Sample Id: 7667398-1-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)	<8.00	1000	855	86	881	88	70-135	3	20	mg/kg	12.04.18 22:28	
Diesel Range Organics (DRO)	<8.13	1000	886	89	903	90	70-135	2	20	mg/kg	12.04.18 22:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		114		113		70-135	%	12.04.18 22:28
o-Terphenyl	98		96		96		70-135	%	12.04.18 22:28

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3071739 Matrix: Soil Date Prep: 12.04.18
Parent Sample Id: 607381-001 MS Sample Id: 607381-001 S MSD Sample Id: 607381-001 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)	<7.99	999	849	85	863	86	70-135	2	20	mg/kg	12.04.18 23:26	
Diesel Range Organics (DRO)	<8.12	999	900	90	908	91	70-135	1	20	mg/kg	12.04.18 23:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		116		70-135	%	12.04.18 23:26
o-Terphenyl	89		89		70-135	%	12.04.18 23:26

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 607383

LT Environmental, Inc.

PLU-CVX-JV PC 11 H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3071815 Matrix: Solid Date Prep: 12.05.18

MB Sample Id: 7667458-1-BLK LCS Sample Id: 7667458-1-BKS LCSD Sample Id: 7667458-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0200	2.00	1.69	85	1.71	86	55-120	1	20	mg/kg	12.05.18 22:22	
Toluene	<0.0200	2.00	1.86	93	1.89	95	77-120	2	20	mg/kg	12.05.18 22:22	
Ethylbenzene	<0.00616	2.00	1.90	95	1.94	97	77-120	2	20	mg/kg	12.05.18 22:22	
m,p-Xylenes	0.00800	4.00	3.80	95	3.89	97	78-120	2	20	mg/kg	12.05.18 22:22	
o-Xylene	<0.00682	2.00	1.96	98	1.99	100	78-120	2	20	mg/kg	12.05.18 22:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	101		91		93		68-120	%	12.05.18 22:22
a,a,a-Trifluorotoluene	92		101		101		71-121	%	12.05.18 22:22

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3071815 Matrix: Soil Date Prep: 12.05.18

Parent Sample Id: 607383-001 MS Sample Id: 607383-001 S MSD Sample Id: 607383-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.0191	1.91	1.68	88	1.59	88	54-120	6	25	mg/kg	12.06.18 01:03	
Toluene	<0.0191	1.91	1.83	96	1.75	97	57-120	4	25	mg/kg	12.06.18 01:03	
Ethylbenzene	<0.0191	1.91	1.93	101	1.85	103	58-131	4	25	mg/kg	12.06.18 01:03	
m,p-Xylenes	<0.00651	3.82	3.84	101	3.71	103	62-124	3	25	mg/kg	12.06.18 01:03	
o-Xylene	<0.0191	1.91	1.95	102	1.92	107	62-124	2	25	mg/kg	12.06.18 01:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	99		100		68-120	%	12.06.18 01:03
a,a,a-Trifluorotoluene	108		104		71-121	%	12.06.18 01:03

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: 1607383

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)

www.xenco.com Page 1 of 1

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.704.5178 Email:	abaker@ltenv.com	

Work Order Comments

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

Project Name:	RLW-CVX-JV-PC 11 H	Turn Around	
Project Number:	ZRP-5029	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.3/0.2	Thermometer ID	T8	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS01	S	11/29/18	0950	4'	1	X	X	X
FS02			1015	4'		X	X	X
FS03			1030	3'		X	X	X
FS04			1120	2'		X	X	X
FS05			1200	2'		X	X	X
FS06	↓	↓	1410	2'	↓	X	X	X
			BTS	11/30/18				

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Composite type

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
1	B.A. Bell	Timothy P. Elliott	11/30/18 16:20 hrs	2 Jaylon R. Long	Rachel	12/4/18
3				4		1305
5				6		

ORIGIN ID:CAOA (575) 887-6245
XENCO SATURDAY
PAC N MAIL
910 W PIERCE ST

CARLSBAD, NM 88220
UNITED STATES US

SHIP DATE: 03DEC18
ACTWGT: 30.08 LB
CAD: 1018137/06/NET4040
DIMS: 27x16x15 IN

BILL RECIPIENT

TO **HOLD FOR XENCO**
FEDEX OFFICE PRINT & SHIP CENTER
FEDEX OFFICE PRINT & SHIP CENTER
200 W INTERSTATE 20

MIDLAND TX 79701
(806) 674-0639

REF: XENCO
INV:
PO:
DEPT:

552J2/E4AF/DCA5

J1821188881501uv

FedEx Express

TUE - 04 DEC HOLD

PRIORITY OVERNIGHT

TRK# 0201 **7738 7002 1034**

HLD

41 MAFA

MAFKI

TX-US **LBB**

After printing this label:
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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Inter-Office Shipment

IOS Number **118328**

Date/Time: 12/04/18 13:42
Lab# From: **Midland**
Lab# To: **Lubbock**

Created by: Brianna Teel
Delivery Priority:
Air Bill No.: Fedex

Please send report to: Jessica Kramer
Address: 1211 W. Florida Ave, Midland TX 79701
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
607383-001	S	FS01	11/29/18 09:50	SW8021B	BTEX by EPA 8021B	12/10/18	12/13/18 09:50	JKR	BR4FBZ BZ BZME EBZ X	
607383-002	S	FS02	11/29/18 10:15	SW8021B	BTEX by EPA 8021B	12/10/18	12/13/18 10:15	JKR	BR4FBZ BZ BZME EBZ X	
607383-003	S	FS03	11/29/18 10:30	SW8021B	BTEX by EPA 8021B	12/10/18	12/13/18 10:30	JKR	BR4FBZ BZ BZME EBZ X	
607383-004	S	FS04	11/29/18 11:20	SW8021B	BTEX by EPA 8021B	12/10/18	12/13/18 11:20	JKR	BR4FBZ BZ BZME EBZ X	
607383-005	S	FS05	11/29/18 12:00	SW8021B	BTEX by EPA 8021B	12/10/18	12/13/18 12:00	JKR	BR4FBZ BZ BZME EBZ X	
607383-006	S	FS06	11/29/18 14:10	SW8021B	BTEX by EPA 8021B	12/10/18	12/13/18 14:10	JKR	BR4FBZ BZ BZME EBZ X	

Inter Office Shipment or Sample Comments:

Relinquished By: Brianna Teel
Brianna Teel

Date Relinquished: 12/04/2018

Received By:
Ashley Derstine

Date Received: 12/05/2018 12:15

Cooler Temperature: 3.8

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Lubbock

IOS #: 118328

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used :

Sent By: Brianna Teel **Date Sent:** 12/04/2018 01:42 PM

Received By: Ashley Derstine **Date Received:** 12/05/2018 12:15 PM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.8	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**No**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 12/05/2018
Ashley Derstine

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12/04/2018 01:05:00 PM

Work Order #: 607383

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 12/04/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 12/04/2018
Jessica Kramer

Analytical Report 607739

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU-CVX-JV-PC 11H

11-DEC-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

11-DEC-18

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

Reference: XENCO Report No(s): **607739**
PLU-CVX-JV-PC 11H
Project Address: 2RP-5029

Adrian Baker:

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) 607739. 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. 607739 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 Assistant

Sample Cross Reference 607739

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS02	S	12-03-18 11:45	2 ft	607739-001
SS03	S	12-03-18 11:55	2 ft	607739-002
SS04	S	12-03-18 14:00	2 ft	607739-003
SS05	S	12-03-18 14:10	2 ft	607739-004
FS07	S	12-03-18 14:35	4.5 ft	607739-005
SW01	S	12-03-18 15:00	0 - 2 ft	607739-006
SSW02	S	12-03-18 15:05	0 - 3 ft	607739-007
SW03	S	12-03-18 15:10	0 - 4 ft	607739-008
FS08	S	12-03-18 15:30	5 ft	607739-009
FS09	S	12-03-18 15:35	5 ft	607739-010
FS13	S	12-04-18 11:05	4 ft	607739-011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3072194 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3072349 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 607739

LT Environmental, Inc., Arvada, CO

Project Name: PLU-CVX-JV-PC 11H

Project Id:
Contact: Adrian Baker
Project Location: 2RP-5029

Date Received in Lab: Thu Dec-06-18 11:15 am
Report Date: 11-DEC-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	607739-001		607739-002		607739-003		607739-004		607739-005		607739-006	
	Field Id:	SS02		SS03		SS04		SS05		FS07		SW01	
	Depth:	2- ft		2- ft		2- ft		2- ft		4.5- ft		0-2 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-03-18 11:45		Dec-03-18 11:55		Dec-03-18 14:00		Dec-03-18 14:10		Dec-03-18 14:35		Dec-03-18 15:00	
BTEX by EPA 8021B	***Extracted:***	Dec-07-18 15:30		Dec-07-18 15:30		Dec-07-18 15:30		Dec-07-18 15:30		Dec-07-18 15:30		Dec-07-18 15:30	
	Analyzed:	Dec-08-18 03:31		Dec-08-18 01:01		Dec-08-18 01:23		Dec-08-18 01:44		Dec-08-18 02:06		Dec-08-18 02:26	
	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	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Toluene		<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
m,p-Xylenes		<0.00402	0.00402	<0.00403	0.00403	<0.00398	0.00398	<0.00400	0.00400	<0.00399	0.00399	<0.00402	0.00402
o-Xylene		<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Total Xylenes		<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Total BTEX		<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Inorganic Anions by EPA 300	***Extracted:***	Dec-07-18 09:00		Dec-07-18 09:00		Dec-07-18 09:00		Dec-07-18 09:00		Dec-07-18 10:00		Dec-07-18 10:00	
	Analyzed:	Dec-07-18 23:18		Dec-07-18 23:24		Dec-07-18 23:30		Dec-07-18 23:37		Dec-08-18 00:32		Dec-08-18 00:14	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		335	4.97	49.7	4.98	45.7	4.95	21.7	4.99	87.0	24.8	86.8	4.96
TPH by SW8015 Mod	***Extracted:***	Dec-07-18 17:00		Dec-07-18 17:00		Dec-07-18 17:00		Dec-07-18 17:00		Dec-07-18 17:00		Dec-07-18 17:00	
	Analyzed:	Dec-08-18 12:56		Dec-08-18 13:55		Dec-08-18 14:14		Dec-08-18 14:34		Dec-08-18 14:54		Dec-08-18 15:14	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	<15.0	15.0
Diesel Range Organics (DRO)		27.9	15.0	<15.0	15.0	36.4	14.9	<15.0	15.0	<14.9	14.9	94.9	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	<15.0	15.0
Total TPH		27.9	15.0	<15.0	15.0	36.4	14.9	<15.0	15.0	<14.9	14.9	94.9	15.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 607739

LT Environmental, Inc., Arvada, CO

Project Name: PLU-CVX-JV-PC 11H

Project Id:
Contact: Adrian Baker
Project Location: 2RP-5029

Date Received in Lab: Thu Dec-06-18 11:15 am
Report Date: 11-DEC-18
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	607739-007		607739-008		607739-009		607739-010		607739-011	
	Field Id:	SSW02		SW03		FS08		FS09		FS13	
	Depth:	0-3 ft		0-4 ft		5- ft		5- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-03-18 15:05		Dec-03-18 15:10		Dec-03-18 15:30		Dec-03-18 15:35		Dec-04-18 11:05	
BTEX by EPA 8021B	***Extracted:***	Dec-07-18 15:30		Dec-07-18 15:30		Dec-10-18 09:30		Dec-10-18 09:30		Dec-10-18 09:30	
	Analyzed:	Dec-08-18 02:47		Dec-08-18 03:09		Dec-10-18 19:06		Dec-10-18 19:25		Dec-10-18 19:44	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00204	0.00204	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00204	0.00204	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00204	0.00204	<0.00200	0.00200
m,p-Xylenes		<0.00401	0.00401	<0.00398	0.00398	<0.00399	0.00399	<0.00408	0.00408	<0.00401	0.00401
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00204	0.00204	0.00538	0.00200
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00204	0.00204	0.00538	0.00200
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00204	0.00204	0.00538	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Dec-07-18 10:00		Dec-07-18 10:00		Dec-07-18 10:00		Dec-07-18 10:00		Dec-07-18 10:00	
	Analyzed:	Dec-08-18 00:38		Dec-08-18 00:45		Dec-08-18 00:51		Dec-08-18 01:09		Dec-08-18 01:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		169	4.98	81.4	24.9	384	24.9	417	24.9	333	5.00
TPH by SW8015 Mod	***Extracted:***	Dec-07-18 17:00		Dec-07-18 17:00		Dec-07-18 17:00		Dec-07-18 17:00		Dec-07-18 17:00	
	Analyzed:	Dec-08-18 15:33		Dec-08-18 15:54		Dec-08-18 16:14		Dec-08-18 16:34		Dec-08-18 17:33	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	22.4	15.0
Diesel Range Organics (DRO)		54.0	15.0	85.6	15.0	23.8	15.0	30.3	15.0	377	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	33.2	15.0
Total TPH		54.0	15.0	85.6	15.0	23.8	15.0	30.3	15.0	433	15.0

Jessica Kramer
Project Assistant

Certificate of Analytical Results 607739

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-001	Date Collected:	12.03.18 11.45	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 09.00	Basis:	Wet Weight
Seq Number:	3072201				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**335**	4.97	mg/kg	12.07.18 23.18		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 17.00	Basis:	Wet Weight
Seq Number:	3072258				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.08.18 12.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	**27.9**	15.0	mg/kg	12.08.18 12.56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.08.18 12.56	U	1
Total TPH	PHC635	**27.9**	15.0	mg/kg	12.08.18 12.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.08.18 12.56	
o-Terphenyl	84-15-1	102	%	70-135	12.08.18 12.56	

Certificate of Analytical Results 607739

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-001	Date Collected:	12.03.18 11.45	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.07.18 15.30	Basis:	Wet Weight
Seq Number:	3072194				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.08.18 03.31	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.08.18 03.31	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.08.18 03.31	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.08.18 03.31	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.08.18 03.31	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.08.18 03.31	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.08.18 03.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	12.08.18 03.31	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.08.18 03.31	

Certificate of Analytical Results 607739

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-002	Date Collected:	12.03.18 11.55	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 09.00	Basis:	Wet Weight
Seq Number:	3072201				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**49.7**	4.98	mg/kg	12.07.18 23.24		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 17.00	Basis:	Wet Weight
Seq Number:	3072258				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.08.18 13.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.08.18 13.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.08.18 13.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.08.18 13.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	12.08.18 13.55	
o-Terphenyl	84-15-1	92	%	70-135	12.08.18 13.55	

Certificate of Analytical Results 607739

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-002	Date Collected:	12.03.18 11.55	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.07.18 15.30	Basis:	Wet Weight
Seq Number:	3072194				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.08.18 01.01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.08.18 01.01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.08.18 01.01	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.08.18 01.01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.08.18 01.01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.08.18 01.01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.08.18 01.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.08.18 01.01	
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.08.18 01.01	

Certificate of Analytical Results 607739

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-003	Date Collected:	12.03.18 14.00	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 09.00	Basis:	Wet Weight
Seq Number:	3072201				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**45.7**	4.95	mg/kg	12.07.18 23.30		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 17.00	Basis:	Wet Weight
Seq Number:	3072258				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	12.08.18 14.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	**36.4**	14.9	mg/kg	12.08.18 14.14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	12.08.18 14.14	U	1
Total TPH	PHC635	**36.4**	14.9	mg/kg	12.08.18 14.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	12.08.18 14.14	
o-Terphenyl	84-15-1	116	%	70-135	12.08.18 14.14	

Certificate of Analytical Results 607739

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-003	Date Collected:	12.03.18 14.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.07.18 15.30	Basis:	Wet Weight
Seq Number:	3072194				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.08.18 01.23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.08.18 01.23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.08.18 01.23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.08.18 01.23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.08.18 01.23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.08.18 01.23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.08.18 01.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	12.08.18 01.23	
1,4-Difluorobenzene	540-36-3	87	%	70-130	12.08.18 01.23	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-004	Date Collected:	12.03.18 14.10	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 09.00	Basis:	Wet Weight
Seq Number:	3072201				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**21.7**	4.99	mg/kg	12.07.18 23.37		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 17.00	Basis:	Wet Weight
Seq Number:	3072258				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.08.18 14.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.08.18 14.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.08.18 14.34	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.08.18 14.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.08.18 14.34	
o-Terphenyl	84-15-1	101	%	70-135	12.08.18 14.34	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-004	Date Collected:	12.03.18 14.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.07.18 15.30	Basis:	Wet Weight
Seq Number:	3072194				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.08.18 01.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.08.18 01.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.08.18 01.44	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.08.18 01.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.08.18 01.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.08.18 01.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.08.18 01.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.08.18 01.44	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.08.18 01.44	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-005	Date Collected:	12.03.18 14.35	Sample Depth:	4.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**87.0**	24.8	mg/kg	12.08.18 00.32		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 17.00	Basis:	Wet Weight
Seq Number:	3072258				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	12.08.18 14.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	12.08.18 14.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	12.08.18 14.54	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	12.08.18 14.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.08.18 14.54	
o-Terphenyl	84-15-1	100	%	70-135	12.08.18 14.54	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-005	Date Collected:	12.03.18 14.35	Sample Depth:	4.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.07.18 15.30	Basis:	Wet Weight
Seq Number:	3072194				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.08.18 02.06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.08.18 02.06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.08.18 02.06	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.08.18 02.06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.08.18 02.06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.08.18 02.06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.08.18 02.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	12.08.18 02.06	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.08.18 02.06	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-006	Date Collected:	12.03.18 15.00	Sample Depth:	0 - 2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**86.8**	4.96	mg/kg	12.08.18 00.14		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 17.00	Basis:	Wet Weight
Seq Number:	3072258				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.08.18 15.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	**94.9**	15.0	mg/kg	12.08.18 15.14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.08.18 15.14	U	1
Total TPH	PHC635	**94.9**	15.0	mg/kg	12.08.18 15.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.08.18 15.14	
o-Terphenyl	84-15-1	100	%	70-135	12.08.18 15.14	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-006	Date Collected:	12.03.18 15.00	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.07.18 15.30	Basis:	Wet Weight
Seq Number:	3072194				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.08.18 02.26	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.08.18 02.26	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.08.18 02.26	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.08.18 02.26	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.08.18 02.26	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.08.18 02.26	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.08.18 02.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	89	%	70-130	12.08.18 02.26	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.08.18 02.26	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SSW02**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-007	Date Collected:	12.03.18 15.05	Sample Depth:	0 - 3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**169**	4.98	mg/kg	12.08.18 00.38		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 17.00	Basis:	Wet Weight
Seq Number:	3072258				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.08.18 15.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	**54.0**	15.0	mg/kg	12.08.18 15.33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.08.18 15.33	U	1
Total TPH	PHC635	**54.0**	15.0	mg/kg	12.08.18 15.33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.08.18 15.33	
o-Terphenyl	84-15-1	102	%	70-135	12.08.18 15.33	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SSW02**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-007	Date Collected:	12.03.18 15.05	Sample Depth:	0 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.07.18 15.30	Basis:	Wet Weight
Seq Number:	3072194				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.08.18 02.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.08.18 02.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.08.18 02.47	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.08.18 02.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.08.18 02.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.08.18 02.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.08.18 02.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	12.08.18 02.47	
1,4-Difluorobenzene	540-36-3	90	%	70-130	12.08.18 02.47	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-008	Date Collected:	12.03.18 15.10	Sample Depth:	0 - 4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**81.4**	24.9	mg/kg	12.08.18 00.45		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 17.00	Basis:	Wet Weight
Seq Number:	3072258				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.08.18 15.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	**85.6**	15.0	mg/kg	12.08.18 15.54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.08.18 15.54	U	1
Total TPH	PHC635	**85.6**	15.0	mg/kg	12.08.18 15.54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	12.08.18 15.54	
o-Terphenyl	84-15-1	98	%	70-135	12.08.18 15.54	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-008	Date Collected:	12.03.18 15.10	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.07.18 15.30	Basis:	Wet Weight
Seq Number:	3072194				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.08.18 03.09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.08.18 03.09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.08.18 03.09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.08.18 03.09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.08.18 03.09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.08.18 03.09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.08.18 03.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90	%	70-130	12.08.18 03.09	
4-Bromofluorobenzene	460-00-4	97	%	70-130	12.08.18 03.09	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-009	Date Collected:	12.03.18 15.30	Sample Depth:	5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**384**	24.9	mg/kg	12.08.18 00.51		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 17.00	Basis:	Wet Weight
Seq Number:	3072258				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.08.18 16.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	**23.8**	15.0	mg/kg	12.08.18 16.14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.08.18 16.14	U	1
Total TPH	PHC635	**23.8**	15.0	mg/kg	12.08.18 16.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	12.08.18 16.14	
o-Terphenyl	84-15-1	112	%	70-135	12.08.18 16.14	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-009	Date Collected:	12.03.18 15.30	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 09.30	Basis:	Wet Weight
Seq Number:	3072349				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.18 19.06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.18 19.06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.18 19.06	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.10.18 19.06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.10.18 19.06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.10.18 19.06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.10.18 19.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	83	%	70-130	12.10.18 19.06	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.10.18 19.06	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-010	Date Collected:	12.03.18 15.35	Sample Depth:	5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**417**	24.9	mg/kg	12.08.18 01.09		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 17.00	Basis:	Wet Weight
Seq Number:	3072258				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.08.18 16.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	**30.3**	15.0	mg/kg	12.08.18 16.34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.08.18 16.34	U	1
Total TPH	PHC635	**30.3**	15.0	mg/kg	12.08.18 16.34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	12.08.18 16.34	
o-Terphenyl	84-15-1	111	%	70-135	12.08.18 16.34	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-010	Date Collected:	12.03.18 15.35	Sample Depth:	5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 09.30	Basis:	Wet Weight
Seq Number:	3072349				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00204	0.00204	mg/kg	12.10.18 19.25	U	1
Toluene	108-88-3	<0.00204	0.00204	mg/kg	12.10.18 19.25	U	1
Ethylbenzene	100-41-4	<0.00204	0.00204	mg/kg	12.10.18 19.25	U	1
m,p-Xylenes	179601-23-1	<0.00408	0.00408	mg/kg	12.10.18 19.25	U	1
o-Xylene	95-47-6	<0.00204	0.00204	mg/kg	12.10.18 19.25	U	1
Total Xylenes	1330-20-7	<0.00204	0.00204	mg/kg	12.10.18 19.25	U	1
Total BTEX		<0.00204	0.00204	mg/kg	12.10.18 19.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	86	%	70-130	12.10.18 19.25	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.10.18 19.25	

Certificate of Analytical Results 607739

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**FS13**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-011	Date Collected:	12.04.18 11.05	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**333**	5.00	mg/kg	12.08.18 01.15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 17.00	Basis:	Wet Weight
Seq Number:	3072258				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**22.4**	15.0	mg/kg	12.08.18 17.33		1
Diesel Range Organics (DRO)	C10C28DRO	**377**	15.0	mg/kg	12.08.18 17.33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**33.2**	15.0	mg/kg	12.08.18 17.33		1
Total TPH	PHC635	**433**	15.0	mg/kg	12.08.18 17.33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	12.08.18 17.33	
o-Terphenyl	84-15-1	112	%	70-135	12.08.18 17.33	

Certificate of Analytical Results 607739

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**FS13**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607739-011	Date Collected:	12.04.18 11.05	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 09.30	Basis:	Wet Weight
Seq Number:	3072349				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.10.18 19.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.10.18 19.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.10.18 19.44	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.10.18 19.44	U	1
o-Xylene	95-47-6	**0.00538**	0.00200	mg/kg	12.10.18 19.44		1
Total Xylenes	1330-20-7	**0.00538**	0.00200	mg/kg	12.10.18 19.44		1
Total BTEX		**0.00538**	0.00200	mg/kg	12.10.18 19.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	12.10.18 19.44	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.10.18 19.44	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

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 607739

LT Environmental, Inc.

PLU-CVX-JV-PC 11H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072201 Matrix: Solid Date Prep: 12.07.18
MB Sample Id: 7667553-1-BLK LCS Sample Id: 7667553-1-BKS LCSD Sample Id: 7667553-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	270	108	259	104	90-110	4	20	mg/kg	12.07.18 20:37	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072203 Matrix: Solid Date Prep: 12.07.18
MB Sample Id: 7667559-1-BLK LCS Sample Id: 7667559-1-BKS LCSD Sample Id: 7667559-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	267	107	266	106	90-110	0	20	mg/kg	12.08.18 00:01	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072201 Matrix: Soil Date Prep: 12.07.18
Parent Sample Id: 607687-003 MS Sample Id: 607687-003 S MSD Sample Id: 607687-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	292	250	505	85	478	74	90-110	5	20	mg/kg	12.07.18 20:56	X

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072201 Matrix: Soil Date Prep: 12.07.18
Parent Sample Id: 607737-001 MS Sample Id: 607737-001 S MSD Sample Id: 607737-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	18.7	248	270	101	270	101	90-110	0	20	mg/kg	12.07.18 22:22	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072203 Matrix: Soil Date Prep: 12.07.18
Parent Sample Id: 607739-006 MS Sample Id: 607739-006 S MSD Sample Id: 607739-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	86.8	248	334	100	333	99	90-110	0	20	mg/kg	12.08.18 00:20	

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 607739

LT Environmental, Inc.

PLU-CVX-JV-PC 11H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072203 Matrix: Soil Date Prep: 12.07.18
Parent Sample Id: 607740-004 MS Sample Id: 607740-004 S MSD Sample Id: 607740-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	407	250	625	87	637	92	90-110	2	20	mg/kg	12.08.18 01:46	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3072258 Matrix: Solid Date Prep: 12.07.18
MB Sample Id: 7667653-1-BLK LCS Sample Id: 7667653-1-BKS LCSD Sample Id: 7667653-1-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)	<8.00	1000	997	100	964	96	70-135	3	20	mg/kg	12.08.18 12:18	
Diesel Range Organics (DRO)	<8.13	1000	994	99	954	95	70-135	4	20	mg/kg	12.08.18 12:18	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		120		114		70-135	%	12.08.18 12:18
o-Terphenyl	97		107		99		70-135	%	12.08.18 12:18

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3072258 Matrix: Soil Date Prep: 12.07.18
Parent Sample Id: 607739-001 MS Sample Id: 607739-001 S MSD Sample Id: 607739-001 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)	<7.98	997	1010	101	901	90	70-135	11	20	mg/kg	12.08.18 13:16	
Diesel Range Organics (DRO)	27.9	997	1030	101	920	89	70-135	11	20	mg/kg	12.08.18 13:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		105		70-135	%	12.08.18 13:16
o-Terphenyl	105		92		70-135	%	12.08.18 13:16

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 607739

LT Environmental, Inc.

PLU-CVX-JV-PC 11H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3072194 Matrix: Solid Date Prep: 12.07.18
MB Sample Id: 7667688-1-BLK LCS Sample Id: 7667688-1-BKS LCSD Sample Id: 7667688-1-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	0.0998	0.0861	86	0.101	101	70-130	16	35	mg/kg	12.07.18 17:32	
Toluene	<0.00200	0.0998	0.0763	76	0.0894	89	70-130	16	35	mg/kg	12.07.18 17:32	
Ethylbenzene	<0.00200	0.0998	0.0883	88	0.111	111	70-130	23	35	mg/kg	12.07.18 17:32	
m,p-Xylenes	<0.00399	0.200	0.177	89	0.232	116	70-130	27	35	mg/kg	12.07.18 17:32	
o-Xylene	<0.00200	0.0998	0.0847	85	0.108	108	70-130	24	35	mg/kg	12.07.18 17:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		128		119		70-130	%	12.07.18 17:32
4-Bromofluorobenzene	85		103		107		70-130	%	12.07.18 17:32

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3072349 Matrix: Solid Date Prep: 12.10.18
MB Sample Id: 7667763-1-BLK LCS Sample Id: 7667763-1-BKS LCSD Sample Id: 7667763-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0994	0.111	112	0.105	105	70-130	6	35	mg/kg	12.10.18 12:58	
Toluene	<0.000453	0.0994	0.100	101	0.0955	96	70-130	5	35	mg/kg	12.10.18 12:58	
Ethylbenzene	<0.000561	0.0994	0.108	109	0.103	103	70-130	5	35	mg/kg	12.10.18 12:58	
m,p-Xylenes	<0.00101	0.199	0.199	100	0.190	95	70-130	5	35	mg/kg	12.10.18 12:58	
o-Xylene	<0.000342	0.0994	0.0971	98	0.0931	93	70-130	4	35	mg/kg	12.10.18 12:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		102		102		70-130	%	12.10.18 12:58
4-Bromofluorobenzene	79		73		75		70-130	%	12.10.18 12:58

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3072194 Matrix: Soil Date Prep: 12.07.18
Parent Sample Id: 607375-009 MS Sample Id: 607375-009 S MSD Sample Id: 607375-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0894	90	0.0963	95	70-130	7	35	mg/kg	12.07.18 18:15	
Toluene	<0.00198	0.0992	0.0773	78	0.0819	81	70-130	6	35	mg/kg	12.07.18 18:15	
Ethylbenzene	<0.00198	0.0992	0.0820	83	0.0829	82	70-130	1	35	mg/kg	12.07.18 18:15	
m,p-Xylenes	<0.00397	0.198	0.159	80	0.157	78	70-130	1	35	mg/kg	12.07.18 18:15	
o-Xylene	<0.00198	0.0992	0.0778	78	0.0772	76	70-130	1	35	mg/kg	12.07.18 18:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		122		70-130	%	12.07.18 18:15
4-Bromofluorobenzene	101		100		70-130	%	12.07.18 18:15

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 607739

LT Environmental, Inc.

PLU-CVX-JV-PC 11H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3072349 Matrix: Soil Date Prep: 12.10.18

Parent Sample Id: 607687-001 MS Sample Id: 607687-001 S MSD Sample Id: 607687-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000770	0.200	0.132	66	0.140	70	70-130	6	35	mg/kg	12.10.18 13:36	X
Toluene	<0.000911	0.200	0.102	51	0.0983	49	70-130	4	35	mg/kg	12.10.18 13:36	X
Ethylbenzene	<0.00113	0.200	0.0939	47	0.0722	36	70-130	26	35	mg/kg	12.10.18 13:36	X
m,p-Xylenes	<0.00203	0.400	0.173	43	0.130	33	70-130	28	35	mg/kg	12.10.18 13:36	X
o-Xylene	<0.000689	0.200	0.0841	42	0.0646	32	70-130	26	35	mg/kg	12.10.18 13:36	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		107		70-130	%	12.10.18 13:36
4-Bromofluorobenzene	77		78		70-130	%	12.10.18 13:36

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: 607739

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)

www.xenco.com Page 1 of 2

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.704.5178 Email:	abaker@ltenv.com	

Work Order Comments

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

Project Name:	PLU-CVX-JV-PC 11 H	Turn Around	
Project Number:	ZBP-5029	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	3.2 / 3.1	Thermometer ID	8
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SS02	S	12/3/18	1145	2'	1	X	X	X
SS03			1155	2'		X	X	X
SS04			1400	2'		X	X	X
SS05			1410	2'		X	X	X
FS07			1435	4.5'		X	X	X
SW01			1500	0-2'		X	X	X
SW02			1505	0-3'		X	X	X
SW03			1510	0-4'		X	X	X
FS08			1530	5'		X	X	X
FS09			1535	5'		X	X	X

Work Order Notes

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

Sample Comments

Composite Type

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
1			12/4/18 @ 17:00	2		12/6 1115 12/5/18 15:30
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

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: 607739

www.xenco.com Page 2 of 2

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.704.5178	Email:	abaker@ltenv.com

Work Order Comments

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

Project Name:	PLU-CUX-JV-PC 11 H
Project Number:	2RP-5029
P.O. Number:	
Sampler's Name:	Benjamin Belill

Turn Around
Routine ☐
Rush:
Due Date:

SAMPLE RECEIPT

Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	3.2/3.1	Thermometer ID	CC
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS13	S	12/4/18	1105	4'	1	X	X	X

Work Order Notes

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

Sample Comments

Composite Typ

BP 12/4/18

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
1			12/4/18 @ 17:00	2		12/5/18 15:30
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Final 1.000

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XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12/06/2018 11:15:00 AM

Work Order #: 607739

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 12/06/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 12/06/2018
Jessica Kramer

Analytical Report 607740

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU-CVX-JV-PC 11H

2RP-5029

12-DEC-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

12-DEC-18

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

Reference: XENCO Report No(s): **607740**
PLU-CVX-JV-PC 11H
Project Address: Delaware Basin

Adrian Baker:

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) 607740. 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. 607740 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 Assistant

Sample Cross Reference 607740

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW04	S	12-04-18 09:20	0 - 4 ft	607740-001
SW05	S	12-04-18 09:25	0 - 4 ft	607740-002
SW06	S	12-04-18 09:30	0 - 6 ft	607740-003
SW07	S	12-04-18 10:10	0 - 6 ft	607740-004
SW08	S	12-04-18 10:15	0 - 8 ft	607740-005
SW09	S	12-04-18 10:40	0 - 5 ft	607740-006
SW10	S	12-04-18 10:45	0 - 4 ft	607740-007
SW11	S	12-04-18 10:50	0 - 3 ft	607740-008
SW12	S	12-04-18 10:55	0 - 2 ft	607740-009
FS12	S	12-04-18 11:00	4 ft	607740-010
FS10	S	12-03-18 15:50	8 ft	607740-011
FS11	S	12-03-18 16:00	6 ft	607740-012

Sample receipt non conformances and comments:

Per clients email corrected sample date for FS10 and FS11 from 12/04/18 to 12/03/18. JKR NEW VERSION GENERATED.

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3072203 Inorganic Anions by EPA 300

Lab Sample ID 607740-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 607740-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012.

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

Batch: LBA-3072361 BTEX by EPA 8021B

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

Benzene Relative Percent Difference (RPD) between matrix spike and duplicate was above quality control limits.

Samples in the analytical batch are: 607740-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012

Lab Sample ID 607740-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, o-Xylene recovered below QC limits in the Matrix Spike. m,p-Xylenes recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 607740-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 607740

LT Environmental, Inc., Arvada, CO

Project Name: PLU-CVX-JV-PC 11H

Project Id: 2RP-5029
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Thu Dec-06-18 11:15 am
Report Date: 12-DEC-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	607740-001		607740-002		607740-003		607740-004		607740-005		607740-006	
	Field Id:	SW04		SW05		SW06		SW07		SW08		SW09	
	Depth:	0-4 ft		0-4 ft		0-6 ft		0-6 ft		0-8 ft		0-5 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-04-18 09:20		Dec-04-18 09:25		Dec-04-18 09:30		Dec-04-18 10:10		Dec-04-18 10:15		Dec-04-18 10:40	
BTEX by EPA 8021B	***Extracted:***	Dec-10-18 16:00		Dec-10-18 16:00		Dec-10-18 16:00		Dec-10-18 16:00		Dec-10-18 16:00		Dec-10-18 16:00	
	Analyzed:	Dec-11-18 06:08		Dec-11-18 06:28		Dec-11-18 06:47		Dec-11-18 07:06		Dec-11-18 07:25		Dec-11-18 07:44	
	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	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		<0.00400	0.00400	<0.00399	0.00399	<0.00402	0.00402	<0.00398	0.00398	<0.00400	0.00400	<0.00398	0.00398
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
Inorganic Anions by EPA 300	***Extracted:***	Dec-07-18 10:00		Dec-07-18 10:00		Dec-07-18 10:00		Dec-07-18 10:00		Dec-07-18 10:00		Dec-07-18 10:00	
	Analyzed:	Dec-08-18 01:22		Dec-08-18 01:28		Dec-08-18 01:34		Dec-08-18 01:40		Dec-08-18 01:59		Dec-08-18 02:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		32.1	4.96	23.6	4.99	191	4.97	407	4.99	505	4.98	61.6	4.99
TPH by SW8015 Mod	***Extracted:***	Dec-07-18 08:00		Dec-07-18 08:00		Dec-07-18 08:00		Dec-07-18 08:00		Dec-07-18 08:00		Dec-07-18 08:00	
	Analyzed:	Dec-07-18 11:09		Dec-07-18 12:07		Dec-07-18 12:26		Dec-07-18 12:45		Dec-07-18 13:05		Dec-07-18 13:24	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<14.9	14.9
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	128	15.0	<15.0	15.0	<14.9	14.9	<14.9	14.9
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<14.9	14.9
Total TPH		<15.0	15.0	<15.0	15.0	128	15.0	<15.0	15.0	<14.9	14.9	<14.9	14.9

Certificate of Analysis Summary 607740

LT Environmental, Inc., Arvada, CO

Project Name: PLU-CVX-JV-PC 11H

Project Id: 2RP-5029
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Thu Dec-06-18 11:15 am
Report Date: 12-DEC-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	607740-007		607740-008		607740-009		607740-010		607740-011		607740-012	
	Field Id:	SW10		SW11		SW12		FS12		FS10		FS11	
	Depth:	0-4 ft		0-3 ft		0-2 ft		4- ft		8- ft		6- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-04-18 10:45		Dec-04-18 10:50		Dec-04-18 10:55		Dec-04-18 11:00		Dec-03-18 15:50		Dec-03-18 16:00	
BTEX by EPA 8021B	***Extracted:***	Dec-10-18 16:00		Dec-10-18 16:00		Dec-10-18 16:00		Dec-10-18 16:00		Dec-10-18 16:00		Dec-10-18 16:00	
	Analyzed:	Dec-11-18 08:03		Dec-11-18 09:18		Dec-11-18 09:37		Dec-11-18 09:56		Dec-11-18 10:15		Dec-11-18 10:34	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Toluene		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
Ethylbenzene		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199
m,p-Xylenes		<0.00398	0.00398	<0.00402	0.00402	<0.00401	0.00401	<0.00400	0.00400	<0.00402	0.00402	<0.00398	0.00398
o-Xylene		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	0.00282	0.00200	<0.00201	0.00201	<0.00199	0.00199
Total Xylenes		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	0.00282	0.00200	<0.00201	0.00201	<0.00199	0.00199
Total BTEX		<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	0.00282	0.00200	<0.00201	0.00201	<0.00199	0.00199
Inorganic Anions by EPA 300	***Extracted:***	Dec-07-18 10:00		Dec-07-18 10:00		Dec-07-18 10:00		Dec-07-18 10:00		Dec-07-18 10:00		Dec-07-18 10:00	
	Analyzed:	Dec-08-18 02:23		Dec-08-18 02:30		Dec-08-18 02:36		Dec-08-18 02:42		Dec-08-18 02:48		Dec-08-18 02:54	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		43.7	4.95	21.9	4.96	19.2	5.00	153	4.98	230	5.00	337	4.96
TPH by SW8015 Mod	***Extracted:***	Dec-07-18 08:00		Dec-07-18 08:00		Dec-07-18 08:00		Dec-07-18 08:00		Dec-07-18 08:00		Dec-07-18 08:00	
	Analyzed:	Dec-07-18 13:44		Dec-07-18 14:03		Dec-07-18 14:23		Dec-07-18 14:42		Dec-07-18 15:40		Dec-07-18 16:00	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	15.0	15.0	<14.9	14.9	<15.0	15.0
Diesel Range Organics (DRO)		54.9	15.0	22.3	15.0	97.3	15.0	242	15.0	<14.9	14.9	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	24.6	15.0	<14.9	14.9	<15.0	15.0
Total TPH		54.9	15.0	22.3	15.0	97.3	15.0	282	15.0	<14.9	14.9	<15.0	15.0

Certificate of Analytical Results 607740

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-001	Date Collected:	12.04.18 09.20	Sample Depth:	0 - 4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**32.1**	4.96	mg/kg	12.08.18 01.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 08.00	Basis:	Wet Weight
Seq Number:	3072253				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.07.18 11.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.07.18 11.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.07.18 11.09	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.07.18 11.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	12.07.18 11.09	
o-Terphenyl	84-15-1	95	%	70-135	12.07.18 11.09	

Certificate of Analytical Results 607740

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-001	Date Collected:	12.04.18 09.20	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 16.00	Basis:	Wet Weight
Seq Number:	3072361				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.11.18 06.08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.11.18 06.08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.11.18 06.08	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.11.18 06.08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.11.18 06.08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.11.18 06.08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.11.18 06.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	12.11.18 06.08	
4-Bromofluorobenzene	460-00-4	82	%	70-130	12.11.18 06.08	

Certificate of Analytical Results 607740

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-002	Date Collected:	12.04.18 09.25	Sample Depth:	0 - 4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**23.6**	4.99	mg/kg	12.08.18 01.28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 08.00	Basis:	Wet Weight
Seq Number:	3072253				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.07.18 12.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.07.18 12.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.07.18 12.07	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.07.18 12.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	12.07.18 12.07	
o-Terphenyl	84-15-1	87	%	70-135	12.07.18 12.07	

Certificate of Analytical Results 607740

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-002	Date Collected:	12.04.18 09.25	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 16.00	Basis:	Wet Weight
Seq Number:	3072361				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.11.18 06.28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.11.18 06.28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.11.18 06.28	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.11.18 06.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.11.18 06.28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.11.18 06.28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.11.18 06.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	12.11.18 06.28	
4-Bromofluorobenzene	460-00-4	83	%	70-130	12.11.18 06.28	

Certificate of Analytical Results 607740

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-003	Date Collected:	12.04.18 09.30	Sample Depth:	0 - 6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**191**	4.97	mg/kg	12.08.18 01.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 08.00	Basis:	Wet Weight
Seq Number:	3072253				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.07.18 12.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	**128**	15.0	mg/kg	12.07.18 12.26		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.07.18 12.26	U	1
Total TPH	PHC635	**128**	15.0	mg/kg	12.07.18 12.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.07.18 12.26	
o-Terphenyl	84-15-1	94	%	70-135	12.07.18 12.26	

Certificate of Analytical Results 607740

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-003	Date Collected:	12.04.18 09.30	Sample Depth:	0 - 6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 16.00	Basis:	Wet Weight
Seq Number:	3072361				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.11.18 06.47	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.11.18 06.47	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.11.18 06.47	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.11.18 06.47	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.11.18 06.47	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.11.18 06.47	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.11.18 06.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	12.11.18 06.47	
4-Bromofluorobenzene	460-00-4	81	%	70-130	12.11.18 06.47	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-004	Date Collected:	12.04.18 10.10	Sample Depth:	0 - 6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**407**	4.99	mg/kg	12.08.18 01.40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 08.00	Basis:	Wet Weight
Seq Number:	3072253				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.07.18 12.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.07.18 12.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.07.18 12.45	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.07.18 12.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	12.07.18 12.45	
o-Terphenyl	84-15-1	86	%	70-135	12.07.18 12.45	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-004	Date Collected:	12.04.18 10.10	Sample Depth:	0 - 6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 16.00	Basis:	Wet Weight
Seq Number:	3072361				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.11.18 07.06	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.11.18 07.06	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.11.18 07.06	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.11.18 07.06	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.11.18 07.06	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.11.18 07.06	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.11.18 07.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	82	%	70-130	12.11.18 07.06	
1,4-Difluorobenzene	540-36-3	112	%	70-130	12.11.18 07.06	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-005	Date Collected:	12.04.18 10.15	Sample Depth:	0 - 8 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**505**	4.98	mg/kg	12.08.18 01.59		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 08.00	Basis:	Wet Weight
Seq Number:	3072253				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	12.07.18 13.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	12.07.18 13.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	12.07.18 13.05	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	12.07.18 13.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	12.07.18 13.05	
o-Terphenyl	84-15-1	88	%	70-135	12.07.18 13.05	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-005	Date Collected:	12.04.18 10.15	Sample Depth:	0 - 8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 16.00	Basis:	Wet Weight
Seq Number:	3072361				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.11.18 07.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.11.18 07.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.11.18 07.25	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.11.18 07.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.11.18 07.25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.11.18 07.25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.11.18 07.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	12.11.18 07.25	
4-Bromofluorobenzene	460-00-4	77	%	70-130	12.11.18 07.25	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-006	Date Collected:	12.04.18 10.40	Sample Depth:	0 - 5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**61.6**	4.99	mg/kg	12.08.18 02.05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 08.00	Basis:	Wet Weight
Seq Number:	3072253				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	12.07.18 13.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	12.07.18 13.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	12.07.18 13.24	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	12.07.18 13.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.07.18 13.24	
o-Terphenyl	84-15-1	99	%	70-135	12.07.18 13.24	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-006	Date Collected:	12.04.18 10.40	Sample Depth:	0 - 5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 16.00	Basis:	Wet Weight
Seq Number:	3072361				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.11.18 07.44	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.11.18 07.44	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.11.18 07.44	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.11.18 07.44	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.11.18 07.44	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.11.18 07.44	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.11.18 07.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	12.11.18 07.44	
4-Bromofluorobenzene	460-00-4	78	%	70-130	12.11.18 07.44	

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Sample Id:	**SW10**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-007	Date Collected:	12.04.18 10.45	Sample Depth:	0 - 4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**43.7**	4.95	mg/kg	12.08.18 02.23		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 08.00	Basis:	Wet Weight
Seq Number:	3072253				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.07.18 13.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	**54.9**	15.0	mg/kg	12.07.18 13.44		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.07.18 13.44	U	1
Total TPH	PHC635	**54.9**	15.0	mg/kg	12.07.18 13.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	12.07.18 13.44	
o-Terphenyl	84-15-1	87	%	70-135	12.07.18 13.44	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-007	Date Collected:	12.04.18 10.45	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 16.00	Basis:	Wet Weight
Seq Number:	3072361				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.11.18 08.03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.11.18 08.03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.11.18 08.03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.11.18 08.03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.11.18 08.03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.11.18 08.03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.11.18 08.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	12.11.18 08.03	
4-Bromofluorobenzene	460-00-4	80	%	70-130	12.11.18 08.03	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-008	Date Collected:	12.04.18 10.50	Sample Depth:	0 - 3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**21.9**	4.96	mg/kg	12.08.18 02.30		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 08.00	Basis:	Wet Weight
Seq Number:	3072253				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.07.18 14.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	**22.3**	15.0	mg/kg	12.07.18 14.03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.07.18 14.03	U	1
Total TPH	PHC635	**22.3**	15.0	mg/kg	12.07.18 14.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.07.18 14.03	
o-Terphenyl	84-15-1	91	%	70-135	12.07.18 14.03	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-008	Date Collected:	12.04.18 10.50	Sample Depth:	0 - 3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 16.00	Basis:	Wet Weight
Seq Number:	3072361				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.11.18 09.18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.11.18 09.18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.11.18 09.18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.11.18 09.18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.11.18 09.18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.11.18 09.18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.11.18 09.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	78	%	70-130	12.11.18 09.18	
1,4-Difluorobenzene	540-36-3	107	%	70-130	12.11.18 09.18	

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-009	Date Collected:	12.04.18 10.55	Sample Depth:	0 - 2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**19.2**	5.00	mg/kg	12.08.18 02.36		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 08.00	Basis:	Wet Weight
Seq Number:	3072253				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.07.18 14.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	**97.3**	15.0	mg/kg	12.07.18 14.23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.07.18 14.23	U	1
Total TPH	PHC635	**97.3**	15.0	mg/kg	12.07.18 14.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	12.07.18 14.23	
o-Terphenyl	84-15-1	89	%	70-135	12.07.18 14.23	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**SW12**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-009	Date Collected:	12.04.18 10.55	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 16.00	Basis:	Wet Weight
Seq Number:	3072361				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.11.18 09.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.11.18 09.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.11.18 09.37	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.11.18 09.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.11.18 09.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.11.18 09.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.11.18 09.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	12.11.18 09.37	
4-Bromofluorobenzene	460-00-4	82	%	70-130	12.11.18 09.37	

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LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**FS12**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-010	Date Collected:	12.04.18 11.00	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**153**	4.98	mg/kg	12.08.18 02.42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 08.00	Basis:	Wet Weight
Seq Number:	3072253				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**15.0**	15.0	mg/kg	12.07.18 14.42		1
Diesel Range Organics (DRO)	C10C28DRO	**242**	15.0	mg/kg	12.07.18 14.42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**24.6**	15.0	mg/kg	12.07.18 14.42		1
Total TPH	PHC635	**282**	15.0	mg/kg	12.07.18 14.42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	12.07.18 14.42	
o-Terphenyl	84-15-1	88	%	70-135	12.07.18 14.42	

Certificate of Analytical Results 607740

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**FS12**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-010	Date Collected:	12.04.18 11.00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 16.00	Basis:	Wet Weight
Seq Number:	3072361				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.11.18 09.56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.11.18 09.56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.11.18 09.56	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.11.18 09.56	U	1
o-Xylene	95-47-6	**0.00282**	0.00200	mg/kg	12.11.18 09.56		1
Total Xylenes	1330-20-7	**0.00282**	0.00200	mg/kg	12.11.18 09.56		1
Total BTEX		**0.00282**	0.00200	mg/kg	12.11.18 09.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.11.18 09.56	
4-Bromofluorobenzene	460-00-4	92	%	70-130	12.11.18 09.56	

Certificate of Analytical Results 607740

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**FS10**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-011	Date Collected:	12.03.18 15.50	Sample Depth:	8 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**230**	5.00	mg/kg	12.08.18 02.48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 08.00	Basis:	Wet Weight
Seq Number:	3072253				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	12.07.18 15.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	12.07.18 15.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	12.07.18 15.40	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	12.07.18 15.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	12.07.18 15.40	
o-Terphenyl	84-15-1	82	%	70-135	12.07.18 15.40	

Certificate of Analytical Results 607740

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**FS10**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-011	Date Collected:	12.03.18 15.50	Sample Depth:	8 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 16.00	Basis:	Wet Weight
Seq Number:	3072361				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.11.18 10.15	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.11.18 10.15	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.11.18 10.15	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.11.18 10.15	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.11.18 10.15	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.11.18 10.15	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.11.18 10.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	80	%	70-130	12.11.18 10.15	
1,4-Difluorobenzene	540-36-3	110	%	70-130	12.11.18 10.15	

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**FS11**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-012	Date Collected:	12.03.18 16.00	Sample Depth:	6 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	12.07.18 10.00	Basis:	Wet Weight
Seq Number:	3072203				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**337**	4.96	mg/kg	12.08.18 02.54		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	12.07.18 08.00	Basis:	Wet Weight
Seq Number:	3072253				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	12.07.18 16.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	12.07.18 16.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	12.07.18 16.00	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	12.07.18 16.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	12.07.18 16.00	
o-Terphenyl	84-15-1	85	%	70-135	12.07.18 16.00	

Certificate of Analytical Results 607740

LT Environmental, Inc., Arvada, CO

PLU-CVX-JV-PC 11H

Sample Id:	**FS11**	Matrix:	Soil	Date Received:	12.06.18 11.15
Lab Sample Id:	607740-012	Date Collected:	12.03.18 16.00	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	12.10.18 16.00	Basis:	Wet Weight
Seq Number:	3072361				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.11.18 10.34	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.11.18 10.34	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.11.18 10.34	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.11.18 10.34	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.11.18 10.34	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.11.18 10.34	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.11.18 10.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	83	%	70-130	12.11.18 10.34	
1,4-Difluorobenzene	540-36-3	108	%	70-130	12.11.18 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.

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 607740

LT Environmental, Inc.

PLU-CVX-JV-PC 11H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072203 Matrix: Solid Date Prep: 12.07.18
MB Sample Id: 7667559-1-BLK LCS Sample Id: 7667559-1-BKS LCSD Sample Id: 7667559-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	267	107	266	106	90-110	0	20	mg/kg	12.08.18 00:01	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072203 Matrix: Soil Date Prep: 12.07.18
Parent Sample Id: 607739-006 MS Sample Id: 607739-006 S MSD Sample Id: 607739-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	86.8	248	334	100	333	99	90-110	0	20	mg/kg	12.08.18 00:20	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3072203 Matrix: Soil Date Prep: 12.07.18
Parent Sample Id: 607740-004 MS Sample Id: 607740-004 S MSD Sample Id: 607740-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	407	250	625	87	637	92	90-110	2	20	mg/kg	12.08.18 01:46	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3072253 Matrix: Solid Date Prep: 12.07.18
MB Sample Id: 7667651-1-BLK LCS Sample Id: 7667651-1-BKS LCSD Sample Id: 7667651-1-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)	<8.00	1000	920	92	857	86	70-135	7	20	mg/kg	12.07.18 10:30	
Diesel Range Organics (DRO)	<8.13	1000	920	92	861	86	70-135	7	20	mg/kg	12.07.18 10:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		112		107		70-135	%	12.07.18 10:30
o-Terphenyl	95		102		95		70-135	%	12.07.18 10:30

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

QC Summary 607740

LT Environmental, Inc.

PLU-CVX-JV-PC 11H

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3072253 Matrix: Soil Date Prep: 12.07.18
Parent Sample Id: 607740-001 MS Sample Id: 607740-001 S MSD Sample Id: 607740-001 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)	<7.99	998	830	83	826	83	70-135	0	20	mg/kg	12.07.18 11:28	
Diesel Range Organics (DRO)	8.30	998	869	86	962	96	70-135	10	20	mg/kg	12.07.18 11:28	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		111		70-135	%	12.07.18 11:28
o-Terphenyl	88		97		70-135	%	12.07.18 11:28

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3072361 Matrix: Solid Date Prep: 12.10.18
MB Sample Id: 7667765-1-BLK LCS Sample Id: 7667765-1-BKS LCSD Sample Id: 7667765-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.0959	96	0.0958	96	70-130	0	35	mg/kg	12.11.18 03:19	
Toluene	<0.000456	0.100	0.0984	98	0.100	100	70-130	2	35	mg/kg	12.11.18 03:19	
Ethylbenzene	<0.000565	0.100	0.112	112	0.115	115	70-130	3	35	mg/kg	12.11.18 03:19	
m,p-Xylenes	<0.00101	0.200	0.206	103	0.213	106	70-130	3	35	mg/kg	12.11.18 03:19	
o-Xylene	<0.000344	0.100	0.101	101	0.105	105	70-130	4	35	mg/kg	12.11.18 03:19	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		93		93		70-130	%	12.11.18 03:19
4-Bromofluorobenzene	76		81		81		70-130	%	12.11.18 03:19

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3072361 Matrix: Soil Date Prep: 12.10.18
Parent Sample Id: 607740-001 MS Sample Id: 607740-001 S MSD Sample Id: 607740-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0994	0.0626	63	0.0897	90	70-130	36	35	mg/kg	12.11.18 03:57	XF
Toluene	<0.000453	0.0994	0.0631	63	0.0772	77	70-130	20	35	mg/kg	12.11.18 03:57	X
Ethylbenzene	<0.000561	0.0994	0.0640	64	0.0763	76	70-130	18	35	mg/kg	12.11.18 03:57	X
m,p-Xylenes	<0.00101	0.199	0.102	51	0.123	62	70-130	19	35	mg/kg	12.11.18 03:57	X
o-Xylene	<0.000342	0.0994	0.0659	66	0.0743	74	70-130	12	35	mg/kg	12.11.18 03:57	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		104		70-130	%	12.11.18 03:57
4-Bromofluorobenzene	80		75		70-130	%	12.11.18 03:57

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

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

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

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

Chain of Custody

Work Order No: 607740

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) www.xenco.com Page 1 of 2

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.704.5178 Email:	abaker@ltenv.com	

Work Order Comments

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

Project Name:	PLU-CUX-SV-PC 11 H	Turn Around	
Project Number:	2RP-5029	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT				
Temperature (°C):	3.2/3.1	Temp Blank:	Yes (No)	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID:		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.1	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
SW04	S	12/4/18	0920	0-4'	1	X	X	X
SW05			0925	0-4'		X	X	X
SW06			0930	0-6'		X	X	X
SW07			1010	0-6'		X	X	X
SW08			1015	0-8'		X	X	X
SW09			1040	0-5'		X	X	X
SW10			1045	0-4'		X	X	X
SW11			1050	0-3'		X	X	X
SW12			1055	0-2'		X	X	X
FS12	↓	↓	1100	4'	↓	X	X	X

Work Order Notes

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

Sample Comments

Composite Type

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
1	B. T. Belill		12/4/18 @ 17:00	2		12/5/18 15:30
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

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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: 607740

www.xenco.com Page 2 of 2

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.704.5178	Email:	abaker@ltenv.com

Work Order Comments

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

Project Name:	PLU-CVX-SV-PC 11 H	Turn Around	
Project Number:	2RP-5029	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT				
Temperature (°C):	3.2/3.1	Temp Blank:	Yes (No)	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS10	S	12/3/18	1550	8'	1	X	X	X
FS11	S	12/3/18	1600	6'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Composite Type
Composite Type

BOB 12/3/18

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
1	BOB		12/4/18 @ 17:00	2		12/6/18	12/5/18 15:30
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Final 1.001

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XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12/06/2018 11:15:00 AM

Work Order #: 607740

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**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: Katie Lowe Date: 12/06/2018

Checklist reviewed by: Jessica Kramer Date: 12/06/2018

View east between the right-of-way showing excavation.

Project: 012918167	XTO Energy, Inc. Poker Lake CVX JV PC #011H	LTE Advancing Opportunity
December 4, 2018	Photographic Log	

View east of the excavation between the pipelines.

Project: 012918167	XTO Energy, Inc. Poker Lake CVX JV PC #011H	LTE Advancing Opportunity
December 3, 2018	Photographic Log	

View west of the excavation.

Project: 012918167	XTO Energy, Inc. Poker Lake CVX JV PC #011H	LTE Advancing Opportunity
December 4, 2018	Photographic Log	