A proud member of WSP

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

April 10, 2020

Mr. Bradford Billings
New Mexico Oil Conservation Division
1220 South St. Francis Drive, #3
Santa Fe, New Mexico 87505

RE: Closure Request
PLU CVX JV RR 003H Produced Water Riser
Remediation Permit Number 2RP-3790
Eddy County, New Mexico

Dear Mr. Billings:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request report detailing site assessment and soil sampling activities at the PLU CVX JV RR 003H Produced Water Riser (Site) in Unit I, Section 19, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to address impacts to soil after a release of produced water at the Site.

The release is included in the Compliance Agreement for Remediation for Historical Releases (Compliance Agreement) between XTO and the New Mexico Oil Conservation Division (NMOCD) effective November 13, 2018. The purpose of the Compliance Agreement is to ensure reportable releases that occurred prior to August 14, 2018, where XTO is responsible for the corrective action, comply with Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC) as amended on August 14, 2018. The release is categorized as a Tier IV site in the Compliance Agreement, meaning the release occurred prior to August 14, 2018, the effective date of 19.15.29 NMAC; however, remediation was ongoing.

RELEASE BACKGROUND

On July 16, 2016, a hole developed in the 8-inch produced water pipeline due to internal corrosion. Approximately 418 barrels (bbls) of produced water were released to the ground surface within the pipeline right-of-way (ROW) where the active riser is operational. A vacuum truck recovered approximately 20 bbls of free-standing fluid. The former operator reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 on July 19, 2016, and was assigned Remediation Permit (RP) Number 2RP-3790. The initial Form C-141 misidentified the Site location as Unit P. The final Form C-141 shows the correct location as Unit I (Attachment 1).

Although the release occurred while the facility was operated by the previous operator, XTO is the current operator and is committed to addressing any releases that remain unresolved. Based

on the site assessment activities and results of the soil sampling events, XTO is requesting no further action for this release event.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of 19.15.29.12 of the NMAC. Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well with depth to water data is United States Geological Survey (USGS) Well 320629103533002, located approximately 6,522 feet southeast of the Site. The water well has a depth to groundwater of 265 feet and a total depth of 280 feet. Ground surface elevation at the water well location is 3,219 feet above mean sea level (AMSL), which is approximately 36 feet higher in elevation than the Site. The closest continuously flowing water or significant watercourse to the Site is an intermittent stream located approximately 2,000 feet west of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located in a low-potential karst area.

In an effort to confirm depth to water in the area, a soil boring was advanced to a depth of 110 feet bgs via truck-mounted sonic drill rig. An LTE geologist logged and described soils continuously. The borehole lithologic/soil sampling log is included in Attachment 2. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 110 feet. The borehole was properly abandoned utilizing hydrated bentonite chips.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT, EXCAVATION, AND DELINEATION SOIL SAMPLING ACTIVITIES

On March 5, 2018, LTE personnel inspected the Site to evaluate the release extent. Pipeline construction activities were underway within the pipeline ROW. No visible indications of the release were identified. Five preliminary soil samples (SS01 through SS05) were collected within the historical release area to assess the lateral extent of impacted soil. The soil sample locations, depicted on Figure 2, were selected based on information provided on the initial Form C-141. To eliminate the effects from weathering and natural degradation of contaminants at the ground surface, the soil samples were collected from each sample location from a depth of 0.5 feet bgs.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Midland, Texas, for analysis of BTEX following United States Environmental Protection Agency (USEPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following USEPA Method 8015M/D; and chloride following USEPA Method 300.0. The soil sample locations are depicted on Figure 2.

On October 30, 2019, LTE personnel returned to the site to collect additional soil samples to assess the vertical extent of impacted soil. Boreholes BH01 through BH05 were advanced via hand-auger to depths ranging from 1 foot to 2 feet bgs at the SS1 through SS5 preliminary soil sample locations. Boreholes BH06 through BH09 were advanced to depths ranging from 1 foot to 2 feet bgs within and around the release area to further assess the lateral and vertical extent of impacted soil. Refusal with the hand-auger was encountered at a depth of 1.5 to 2 feet bgs due to a hard caliche layer. Two delineation soil samples were collected from each borehole from depths ranging from 1 foot to 2 feet bgs. Soil from the boreholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the boreholes were logged on lithologic/soil sampling logs, which are included in Attachment 2.

On November 14, 2019, LTE personnel returned to the Site to oversee additional site assessment activities using a backhoe, due to shallow refusal with a hand-auger. Potholes PH01 through PH03 were advanced to depths ranging from 4 feet to 11 feet bgs at the BH02, BH04, and BH07 soil sample locations. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. The potholes were advanced vertically until field screening results indicated that chloride concentrations were decreasing. Delineation soil samples were collected from each pothole from depths ranging from 2 feet to 11 feet bgs. Samples were collected from the pothole interval with the highest field screening results and from total depth of the pothole. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Attachment 2. The delineation soil sample locations are depicted on Figure 2.

The delineation soil samples were collected, handled, and analyzed as described above and submitted to Xenco. Photographic documentation was conducted during the Site visits. Photographs are included in Attachment 3.

ANALYTICAL RESULTS

Laboratory analytical results indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in preliminary soil samples SS1 through SS5 and delineation soil samples from boreholes BH01 through BH09 and potholes PH01 through PH03. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

CLOSURE REQUEST

Site assessment activities were conducted at the Site to address the July 16, 2016, release of produced water at the active pipeline riser. Delineation soil sampling was completed in and around the release extent to assess the lateral and vertical extent of impacted soil. Laboratory analytical results for the delineation soil samples indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and no further remediation was required.

Initial response efforts and natural attenuation have mitigated impacts at this Site. XTO requests no further action for RP Number 2RP-3790. An updated NMOCD Form C-141 is included in Attachment 1.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Aimee Cole
Project Environmental Scientist

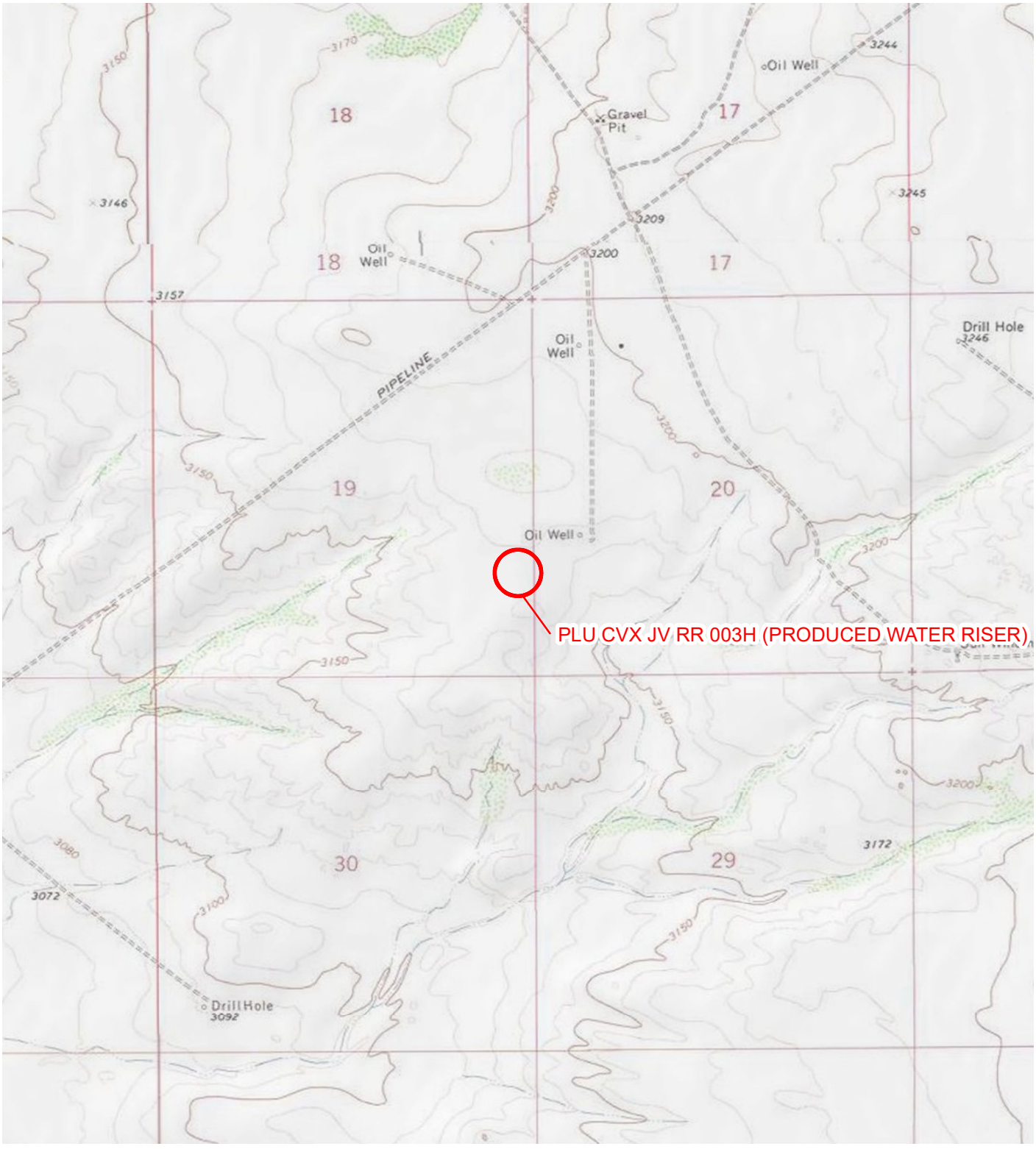
Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Bureau of Land Management
Mike Bratcher, NMOCD

Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Delineation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Initial/Final NMOCD Form C-141 (2RP-3790)
Attachment 2	Lithologic / Soil Sample Logs
Attachment 3	Photographic Log
Attachment 4	Laboratory Analytical Reports

FIGURES



LEGEND

SITE LOCATION

IMAGE COURTESY OF ESRI/USGS

0 2,000 4,000

Feet

N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBER 2RP-3790

FIGURE 1
SITE LOCATION MAP
PLU CVX JV RR 003H (PRODUCED WATER RISER)
UNIT I SEC 19 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918078_PLU CVX JV RR 003H PW RISER\012918078_FIG01_SL_3790.mxd

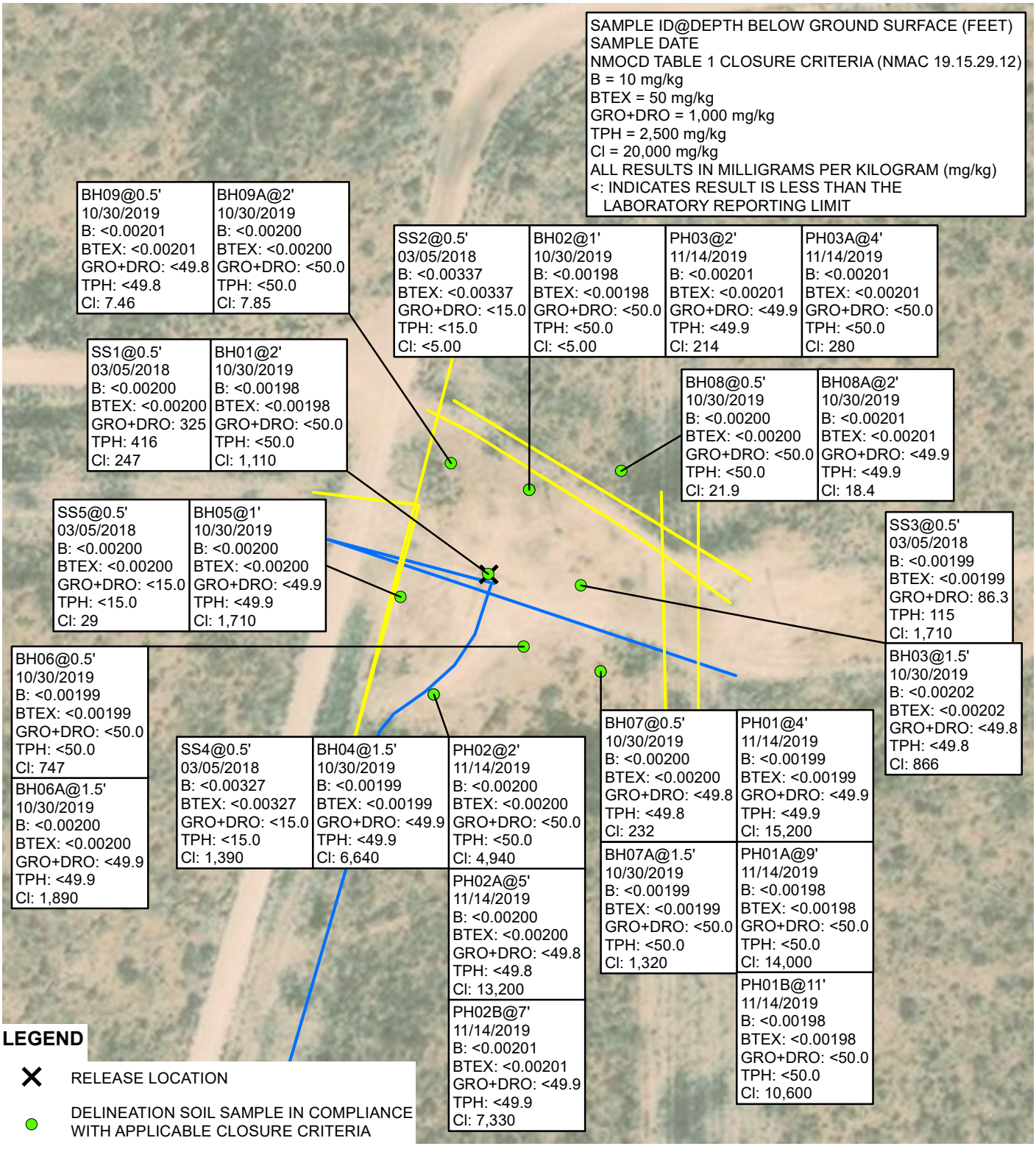


FIGURE 2
SOIL SAMPLE LOCATIONS
PLU CVX JV RR 003H (PRODUCED WATER RISER)
UNIT I SEC 19 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918078_PLU CVX JV RR 003H PW RISER\012918078_FIG02_PRELIM_DELIN_3790.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

PLU CVX JV RR 003H (PRODUCED WATER RISER)
REMEDIATION PERMIT NUMBER 2RP-3790
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SS1	0.5	03/05/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	325	90.6	325	416	247
SS2	0.5	03/05/2018	<0.00337	<0.00337	<0.00337	<0.00337	<0.00337	<15.0	<15.0	<15.0	<15.0	<15.0	<5.00
SS3	0.5	03/05/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	86.3	28.9	86.3	115	1,710
SS4	0.5	03/05/2018	<0.00327	<0.00327	<0.00327	<0.00327	<0.00327	<15.0	<15.0	<15.0	<15.0	<15.0	1,390
SS5	0.5	03/05/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	29.1
BH01	2	10/30/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	1,110
BH02	1	10/30/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	<5.00
BH03	1.5	10/30/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	866
BH04	1.5	10/30/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	6,640
BH05	1	10/30/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	1,710
BH06	0.5	10/30/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	747
BH06A	1.5	10/30/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	1,890
BH07	0.5	10/30/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	232
BH07A	1.5	10/30/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	1,320
BH08	0.5	10/30/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	21.9
BH08A	2	10/30/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	18.4
BH09	0.5	10/30/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	7.46
BH09A	2	10/30/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	7.85
PH01	4	11/14/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	15,200
PH01A	9	11/14/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	14,000
PH01B	11	11/14/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	10,600
PH02	2	11/14/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	4,940
PH02A	5	11/14/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	13,200
PH02B	7	11/14/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	7,330
PH03	2	11/14/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	214
PH03A	4	11/14/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	280
NMOCD Table 1 Closure Criteria			**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 xylene
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram
ORO - motor oil range organics
NMAC - New Mexico Administrative Code
NMOCD - New Mexico Oil Conservation Division
NE - not established
TPH - total petroleum hydrocarbons
Bold - indicates result exceeds the applicable regulatory standard
< - indicates result is below laboratory reporting limits
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018

ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141 (2RP-3790)

NM OIL CONSERVATION
ARTESIA DISTRICT
JUL 19 2016
RECEIVED

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

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1620449814

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. 260737	Contact: Bradley Blevins
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: PLU CVX JV RR 003H (PW Riser)	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No.30-015-37800

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	19	25S	30E	100		475		Eddy

Latitude: 32.112202 **Longitude:** 103.912686

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 418 Barrels	Volume Recovered: 20 Barrels
Source of Release: PW pipeline	Date and Hour of Occurrence 7-16-16 @ Unknown Time	Date and Hour of Discovery 7-16-16 @ 10:33am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher, Heather Patterson, Shelly Tucker BLM	
By Whom? Amy Ruth	Date and Hour: 7-16-16 @ 3:59pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
A hole developed in the 8 inch produced water pipeline due to internal corrosion releasing produced water to the ground surface. A vacuum truck was called to the location and recovered 20 barrels PW.

Describe Area Affected and Cleanup Action Taken.*
Release affected pasture along ROW. A vacuum truck was called to the location and recovered 20 barrels PW.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Bradley Blevins	OIL CONSERVATION DIVISION Approved by Environmental Specialist:
Printed Name: Bradley Blevins	
Title: Assistant Remediation Foreman	Approval Date: 7/21/16 Expiration Date: N/A
E-mail Address: bblevins@basspet.com	Conditions of Approval: Attached ☐
Date: 2-19-16 Phone: 432-214-3704	Remediation per O.C.D. Rules & Guidelines SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 8/25/16

* Attach Additional Sheets If Necessary

3RP-3790

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	
District RP	2RP-3790
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Kyle Littrell	Contact Telephone: (432)-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident #: 2RP-3790
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude N 32.112202 Longitude W -103.912686
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: PLU CVX JV RR 003H (PW Riser)	Site Type: Exploration and Production
Date Release Discovered: 7/16/2016	API# *(if applicable):* 30-015-37800

Unit Letter	Section	Township	Range	County
I	19	25S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls):	Volume Recovered (bbls):
☒ Produced Water	Volume Released (bbls): 418	Volume Recovered (bbls): 20
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
A hole developed in the 8-inch produced water pipeline riser due to internal corrosion.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3790
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Release volume was greater than 25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? By Amy Ruth to Mike Bratcher/Heather Patterson (NMOCD), and Shelly Tucker (BLM) on 7-16-2016 at 3:59 pm.	

Initial Response

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

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

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

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 4-10-2020

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3790
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3790
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 4-10-2020

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

OCD Only

Received by: Date:

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nAB1620449814
District RP	2RP-3790
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

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

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 4-10-2020

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: Bradford Billings Date: 09/15/2021

Printed Name: Bradford Billings Title: Envi.Spec.A

ATTACHMENT 2: LITHOLOGIC / SOIL SAMPLE LOGS

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date:
MW01	2/4/2020
Project Name: ~~ADU 816~~ PLU 423	RP Number: ZRP-3790
Logged By: FS	Method: SONIC
Hole Diameter: 4"/6"	Total Depth: 110'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: ~~CHLORIDES, PID.~~

Comments: No sampling, lithology remarks only

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					1			hydrovac excavated (refusal @ 1')
					2			2.5' SAND, dry, well graded, coarse-fine grand, light brwn-tan, no stain, no odor
D			N		3		SW-S	
					4			5' few silty sand pockets, reddish brwn, no plas, non cohesive
D			N		5			
					6			
					7		SP	6' SAND, dry, poorly graded, light brwn-brwn, fine-very fine 2.5-4 9-12
D			N		8			
					9			7.5' some mod. consol ss light brwn-brwn, sub rounded
D			N		10		SW-S	
					11			10' abundant ss 10-11' color change
					12			12' ss gravel? absent tan-off white
					13		SP	16' abundant ss gravel (mod consol) 13' back t/ light brwn-brwn
					14			19' abundant - some
D			N		15			
					16			21.5' sandstone, light, abundant well brwn-tan, dry, mod consolidated
D			N		17		SW-S	
					18			23' sandstone chunks absent
D			N		19			
					20			
					21			
D			N		22			
					23			
					24			
D			N		25			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date:
MW01	2/4/2020
Project Name: ~~ADU 816~~ PLU 423	RP Number: ~~2RP-2674~~ 2RP-3790
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: FS / Method: SONIC
Lat/Long:	Field Screening: ~~CHLORIDES, PID~~ / Hole Diameter: 4"/6" / Total Depth: 110'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					26			27.5' SAND, dry, light brwn - tan, poorly graded, fine-very fine
D			N		27			
					28		SP	30' trace light ~~brwn - tan~~ grey - grey caliche pebbles (gravel), rounded
D			N		29			
					30			31' caliche pebbles absent
D			N		31			
					32			31.5' color change light brwn - reddish brwn
M			N		33			33-34' abundant ss chunks, mod consol
					34			
					35			35' ss chunks absent
M			N		36		SW-SM	36' some clay pockets, reddish brwn, few pebbles, rounded - subrounded, grey - light grey, few laminations w/ clay, caliche, dolomite?
					37			
M			N		38			
					39			
M			N		40			
					41			42.5' clay laminations, trace, reddish brwn
M			N		42			
					43			
M			N		44			44' color change, light brwn - tan, SILTY sand
					45		SP-SM	44.5' some SILTY sand, predomin light brwn - tan, no plasticity, non cohesive, trace high plas clay nodules, reddish brwn
D			N		46			
					47			
					48			48.5' low plas clay band, orange (35-40 mm)
D			N		49			49.5' faint yellow band, (15-20 mm)
					50			

rig adding water

LT Environmental, Inc.
Advancing Cleaner Quality
25 YEARS

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date:
MW01	2/4/2020
Project Name:	**RP Number:**
PLU 423	2RP-3790

LITHOLOGIC / SOIL SAMPLING LOG

Logged By:	Method:
FS	sonic

Lat/Long:	Field Screening: ~~CHLORIDES, PID~~	Hole Diameter: 4" / 6"	Total Depth: 110'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D			N		51		SP	51.5' trace, high plas clay nodules
					52			
D			N		53			53-54' some silty ss, poorly consolidated
					54			
M			N		55			55.5' color change tan-grey band (30mm)
					56			
M			N		57	X		59.5' SILTY sand, light brwn-brwn, moist, no plas, non cohesive, no stain
					58			
M			N		59			
					60		SM	62' more consolidated
					61			64' dark brwn color change, silty clay nodules
					62			
D			N		63		SM-S	66' pockets of silty clay brwn-green
M			N		64			
					65			68' low plas clay pockets some, few low plas clay laminations
					66			
M			N		67			
					68			71' SILTY sand, dry, no plas, non cohesive, light brwn-tan
M			N		69			
					70			74' trace caliche pebbles, light grey-grey
D			N		71		SM	
					72			
					73			
D			N		74			
					75			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date:
MW01	2/4/2020
Project Name:	**RP Number:**
PLU 423	2RP-3790
Logged By: FS, BB	**Method:** sonic
Lat/Long:	**Field Screening:** ~~CHLORIDES, PID~~
Hole Diameter: 6"/4"	**Total Depth:** 110'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
						76	SM	76.5' trace low plas clay nodules, reddish brwn
D			N			77		
						78		82' CLAYSTONE, moist, brwn-greenish grey, low plasticity, cohesive, no stain, no odor mod consolidated
D			N			79		
						80		
D			N			81		85' SILTY sand, dry, light brwn - brwn, no plas, non cohesive, no stain, no odor
						82	CL-S	
M			N			83		
						84		
						85	SM	87' color change tan - off white
D			N			86		88' light brwn - brwn
						87	SM-S	
D			N			88		87' SILTSTONE, dry, w/ clay pockets, low plas
						89		
D			N			90		
						91		91' abundant clay pockets
						92		94.5' band yellow low plas clay
D			N			93		
						94	SM	
D			N			95	CH	end@95' 2/4/2020
						96		2/5/20
M			N			97		95'-101 CLAY, moist, brown - dark brown, high plasticity, cohesive, some tan clay laminations, no stain, no odor.
M			N			98		
D			N			99		98' - 99' tan fine grain sandstone stringer.
M			N			100		

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date:
MW01	2/5/2020
Project Name:	**RP Number:**
PLU 423	2RP-3790

LITHOLOGIC / SOIL SAMPLING LOG

Logged By:	Method:
BP	Sonic

Lat/Long:	Field Screening: CHLORIDES, PID.	Hole Diameter:	Total Depth:
		6"/4"	110'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D			N		101		CH	
D			N		102		SP-S	101'- 105' SANDSTONE, tan - light brown, dry, moderately consolidated, calcareous cemented, poorly graded, no stain, no odor.
D			N		103			
D			N		104			
M			N		105			
D			N		106		CH	105'- 110' CLAY, moist, dark brown - brown, high plasticity, cohesive, trace tan sand laminations, no stain, no odor.
D			N		107			
M			N		108			107'- 109' tan - light brown well consolidated fine grain sandstone stringer.
					109			
					110			
					111		TD@110	TD @ 110'
					112			
					113			
					114			
					115			
					116			
					117			
					118			
					119			
					120			
					121			
					122			
					123			
					124			
					125			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier:	Date:
BH01	10/30/2019
PLU CVX JV RR #003H(PW Riser)	2RP-3790

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: RH	Method: Hand Auger

Lat/Long: 32.11202, -103.912686	Field Screening: Chloride, TPH	Hole Diameter: 4"	Total Depth: 2'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
moist	998	0	n	BH01	0 2	2'	SP	SILTY SAND w/ caliche, moist, brown, poorly graded, no staining, no odor
								Total Depth 2 feet bgs

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date:
BH02	10/30/2019
PLU CVX JV RR #003H(PW Riser)	2RP-3790

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: RH	Method: Hand Auger

Lat/Long: 32.11202, -103.912686	Field Screening: Chloride, TPH	Hole Diameter: 4"	Total Depth: 2'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
moist	<129	0	n	BH02	0 1	1'	SP	SILTY SAND w/ caliche, moist, brown, poorly graded, no staining, no odor
								Total Depth 2 feet bgs

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier:	Date:
BH03	10/30/2019
PLU CVX JV RR #003H(PW Riser)	2RP-3790

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: RH	Method: Hand Auger

Lat/Long: 32.11202, -103.912686	Field Screening: Chloride, TPH	Hole Diameter: 4"	Total Depth: 2'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
moist	196	0	n	BH03	0 1.5	1.5'	SP	SILTY SAND w/ caliche, moist, brown, poorly graded, no staining, no odor
								Total Depth 2 feet bgs

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date:
BH04	10/30/2019
PLU CVX JV RR #003H(PW Riser)	2RP-3790

LITHOLOGIC / SOIL SAMPLING LOG

Logged By:	Method:
RH	Hand Auger

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
32.11202, -103.912686	Chloride, TPH	4"	2'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
moist	1,708	0	n	BH04	1.5	1.5'	SP	SILTY SAND w/ caliche, moist, brown, poorly graded, no staining, no odor
								Total Depth 2 feet bgs

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier:	Date:
BH05	10/30/2019
PLU CVX JV RR #003H(PW Riser)	2RP-3790

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: RH	Method: Hand Auger

Lat/Long: 32.11202, -103.912686	Field Screening: Chloride, TPH	Hole Diameter: 4"	Total Depth: 1'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
moist	667	0	n	BH05	0 1	1	SP	SILTY SAND w/ caliche, moist, brown, poorly graded, no staining, no odor
								Total Depth 1 feet bgs

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier:	Date:
BH06	10/30/2019
PLU CVX JV RR #003H(PW Riser)	2RP-3790

LITHOLOGIC / SOIL SAMPLING LOG

Logged By:	Method:
RH	Hand Auger

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
32.11202, -103.912686	Chloride, TPH	4"	1.5'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Dry	196	0	n	BH 06	0	0.5	SP	SILTY SAND w/ caliche, moist, brown, poorly graded, no staining, no odor
moist	288	0	n	BH06 A	1.5	1	SP	SILTY SAND w/ caliche, moist, brown, poorly graded, no staining, no odor
								Total Depth 1.5 feet bgs

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier:	Date:
BH07	10/30/2019
PLU CVX JV RR #003H(PW Riser)	2RP-3790

LITHOLOGIC / SOIL SAMPLING LOG

Logged By:	Method:
RH	Hand Auger

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
32.11202, -103.912686	Chloride, TPH	4"	1.5'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Dry	<129	0	n	BH 07	0	0.5	SP	SILTY SAND w/ caliche, moist, brown, poorly graded, no staining, no odor
moist	1,233	0	n	BH07 A	1.5	1.5	SM	SAND w/ little caliche, moist, brown, Fine sand, no staining, no odor
								Total Depth 1.5 feet bgs

LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation	Identifier: BH08	Date: 10/30/2019
	PLU CVX JV RR #003H(PW Riser)	2RP-3790

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: RH	Method: Hand Auger
Lat/Long: 32.11202, -103.912686	Field Screening: Chloride, TPH
Hole Diameter: 4"	Total Depth: 2'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
Dry	<129	0	n	BH 08	0	0.5	SP	SAND w/ little caliche, moist, brown, Fine sand, no staining, no odor
moist	<129	0	n	BH08 A	2	2	SM	SILTY SAND w/ caliche, moist, brown, poorly graded, no staining, no odor
								Total Depth 2 feet bgs

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier:	Date:
BH09	10/30/2019
PLU CVX JV RR #003H(PW Riser)	2RP-3790

LITHOLOGIC / SOIL SAMPLING LOG

Logged By:	Method:
RH	Hand Auger

Lat/Long:	Field Screening:	Hole Diameter:	Total Depth:
32.11202, -103.912686	Chloride, TPH	4"	2'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
moist	<129	0	n	BH 09	0	0.5	SM	SILTY SAND w/ caliche, moist, brown, poorly graded, no staining, no odor
moist	<129	0	n	BH09 A	2	2	SM	SILTY SAND w/ caliche, moist, brown, poorly graded, no staining, no odor
								Total Depth 2 feet bgs

Released to Imaging: 9/15/2021 10:29:53 AM

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier: ~~BH01~~ LO PH01	Date: 11-14-2019
Project Name: PLU CVX JV RR 0311 System Near	RP Number:
Logged By: ~~B.B.~~ LAD	Method: Mini-ex
Lat/Long:	Field Screening: CHLORIDES, PID.
Hole Diameter:	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
						0			
						1			
1131	Dry	4,972.8	0.0	None	1	2	2'		Muted brown, no odor, no moisture, no clumping, no plasticity, poorly graded, fine sand with gravel, slight organics
1137	Dry	12,286.4	0.0	None	2	3	3'		Cream color, slight odor, no moisture, slight clumping no plasticity, poorly graded, fine-grained caliche, no organics
1141	Dry	(6.8) 12,286.4	0.0	None	3	4	4'*		SAA
1210	Dry	(6.8) 12,286.4	0.0	None	4	5	5'		SAA
						6			
1226	Dry	6.8 (12,286.4)	0.3	None	5	7	7'		Reddish in color, but SAA
						8			
1248	Dry	7.4 16,128	0.1	None	6	9	9'*		Reddish / SAA
						10			
1348	Low moist	(6.2) 9,514.4	0.5	None	7	11	11'*		Light brown, but SAA
						12			

Received by OCD: 4/9/2020 2:22:27 PM

Released to Imaging: 9/15/2021 10:29:53 AM

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier: ~~BH10~~ PH02	Date: 11-14-2019
Project Name:	RP Number:
Logged By: ~~BB~~ LAD	Method:
Hole Diameter:	Total Depth: 7'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: CHLORIDES, PID.

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1426 Dry	(6.8) 2316.8	0.1	None	1	2	2'		Very light brown, no odor, no moisture, no clumping, no plasticity, poorly graded, fine sand with gravel, slight organics
1433 Dry	10,348.8	0.1	None	2	4	4'		Cream color, slight odor, no moisture, no clumping, no plasticity, poorly graded, fine grained calcite, no organics
1444 Dry	12,226.4	0.1	None	3	5	5'		SAA
1503 Dry	6,865.6	0.1	Maybe CT stains?	4	7	7'		Light brown/reddish, slight odor, dry, ~~slight~~ clumping no plasticity, poorly graded, fine-grained sand, no organics

Received by OCD: 4/9/2020 2:22:27 PM

Released to Imaging: 9/15/2021 10:29:53 AM

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier: ~~LD~~ ~~BH11~~ PH03	Date: 11-14-2019
Project Name:	RP Number:

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: B.B.	Method:
Lat/Long:	Field Screening: CHLORIDES, PID.
Hole Diameter:	Total Depth:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1550 Dry	173.6	0.0	None	1	2	2'		White, no odor, no moisture, no clumping, no plasticity, poorly graded, fine-grained calcite, no organics
1559 Dry	302.4	0.0	None	2	4	4'		Powdery, but SAA

Received by OCD: 4/9/2020 2:22:27 PM

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: East facing view of release area.

Photograph 2: North facing view of release area.

Photograph 3: South facing view of release area.

Photograph 4: West facing view of release area.

PLU CVX JV RR 003H (Produced Water Riser)
Eddy County, New Mexico
Photographs Taken: March 2018 – November 2019

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS

Analytical Report 578596

for

LT Environmental, Inc.

Project Manager: Adrian Baker

PLU CVX JV RR 003H PW Riser 2RP-3790

15-MAR-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-18-14)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)

Released to Imaging: 9/15/2021 10:29:53 AM

15-MAR-18

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

Reference: XENCO Report No(s): **578596**
PLU CVX JV RR 003H PW Riser 2RP-3790
Project Address: NM

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) 578596. 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. 578596 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Sample Cross Reference 578596

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H PW Riser 2RP-3790

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS1	S	03-05-18 09:30	6 In	578596-001
SS2	S	03-05-18 09:38	6 In	578596-002
SS3	S	03-05-18 09:44	6 In	578596-003
SS4	S	03-05-18 09:50	6 In	578596-004
SS5	S	03-05-18 09:56	6 In	578596-005

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV RR 003H PW Riser 2RP-3790

Project ID:
Work Order Number(s): *578596*

Report Date: *15-MAR-18*
Date Received: *03/07/2018*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3043536 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3043732 BTEX by EPA 8021B
Lab Sample ID 578596-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene 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: 578596-001, -003, -005.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 578596-001, -003, -005

Certificate of Analysis Summary 578596

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV RR 003H PW Riser 2RP-3790

Project Id:

Contact: Adrian Baker

Project Location: NM

Date Received in Lab: Wed Mar-07-18 03:08 pm

Report Date: 15-MAR-18

Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	578596-001		578596-002		578596-003		578596-004		578596-005	
	Field Id:	SS1		SS2		SS3		SS4		SS5	
	Depth:	6- In		6- In		6- In		6- In		6- In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-05-18 09:30		Mar-05-18 09:38		Mar-05-18 09:44		Mar-05-18 09:50		Mar-05-18 09:56	
BTEX by EPA 8021B	***Extracted:***	Mar-11-18 09:00		Mar-13-18 08:00		Mar-11-18 09:00		Mar-13-18 08:00		Mar-11-18 09:00	
	Analyzed:	Mar-11-18 15:46		Mar-13-18 16:37		Mar-11-18 16:24		Mar-13-18 16:56		Mar-11-18 17:03	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00337	0.00337	<0.00199	0.00199	<0.00327	0.00327	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00337	0.00337	<0.00199	0.00199	<0.00327	0.00327	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00337	0.00337	<0.00199	0.00199	<0.00327	0.00327	<0.00200	0.00200
m,p-Xylenes		<0.00399	0.00399	<0.00673	0.00673	<0.00398	0.00398	<0.00654	0.00654	<0.00401	0.00401
o-Xylene		<0.00200	0.00200	<0.00337	0.00337	<0.00199	0.00199	<0.00327	0.00327	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00337	0.00337	<0.00199	0.00199	<0.00327	0.00327	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00337	0.00337	<0.00199	0.00199	<0.00327	0.00327	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Mar-12-18 16:00		Mar-12-18 16:00		Mar-12-18 16:00		Mar-12-18 16:00		Mar-12-18 16:00	
	Analyzed:	Mar-13-18 20:25		Mar-13-18 20:30		Mar-13-18 20:35		Mar-13-18 20:41		Mar-13-18 20:46	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		247	4.97	<5.00	5.00	1710	24.9	1390	4.97	29.1	5.00
TPH by SW8015 Mod	***Extracted:***	Mar-11-18 10:00		Mar-11-18 10:00		Mar-11-18 10:00		Mar-11-18 10:00		Mar-10-18 10:00	
	Analyzed:	Mar-12-18 18:19		Mar-12-18 18:39		Mar-12-18 18:58		Mar-12-18 19:17		Mar-11-18 00:13	
	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	<15.0	15.0
Diesel Range Organics (DRO)		325	15.0	<15.0	15.0	86.3	15.0	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		90.6	15.0	<15.0	15.0	28.9	15.0	<15.0	15.0	<15.0	15.0
Total TPH		416	15.0	<15.0	15.0	115	15.0	<15.0	15.0	<15.0	15.0

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 578596

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H PW Riser 2RP-3790

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578596-001	Date Collected:	03.05.18 09.30	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.12.18 16.00	Basis:	Wet Weight
Seq Number:	3043580				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**247**	4.97	mg/kg	03.13.18 20.25		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.18 10.00	Basis:	Wet Weight
Seq Number:	3043520				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.12.18 18.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	**325**	15.0	mg/kg	03.12.18 18.19		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**90.6**	15.0	mg/kg	03.12.18 18.19		1
Total TPH	PHC635	**416**	15.0	mg/kg	03.12.18 18.19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	03.12.18 18.19	
o-Terphenyl	84-15-1	99	%	70-135	03.12.18 18.19	

Certificate of Analytical Results 578596

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H PW Riser 2RP-3790

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578596-001	Date Collected:	03.05.18 09.30	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.11.18 09.00	Basis:	Wet Weight
Seq Number:	3043732				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.11.18 15.46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.11.18 15.46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.11.18 15.46	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.11.18 15.46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.11.18 15.46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.11.18 15.46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.11.18 15.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	86	%	70-130	03.11.18 15.46	
4-Bromofluorobenzene	460-00-4	111	%	70-130	03.11.18 15.46	

Certificate of Analytical Results 578596

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H PW Riser 2RP-3790

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578596-002	Date Collected:	03.05.18 09.38	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.12.18 16.00	Basis:	Wet Weight
Seq Number:	3043580				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	03.13.18 20.30	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.18 10.00	Basis:	Wet Weight
Seq Number:	3043520				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.12.18 18.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.12.18 18.39	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	03.12.18 18.39	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.12.18 18.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	03.12.18 18.39	
o-Terphenyl	84-15-1	85	%	70-135	03.12.18 18.39	

Certificate of Analytical Results 578596

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H PW Riser 2RP-3790

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578596-002	Date Collected:	03.05.18 09.38	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.13.18 08.00	Basis:	Wet Weight
Seq Number:	3043536				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00337	0.00337	mg/kg	03.13.18 16.37	U	1
Toluene	108-88-3	<0.00337	0.00337	mg/kg	03.13.18 16.37	U	1
Ethylbenzene	100-41-4	<0.00337	0.00337	mg/kg	03.13.18 16.37	U	1
m,p-Xylenes	179601-23-1	<0.00673	0.00673	mg/kg	03.13.18 16.37	U	1
o-Xylene	95-47-6	<0.00337	0.00337	mg/kg	03.13.18 16.37	U	1
Total Xylenes	1330-20-7	<0.00337	0.00337	mg/kg	03.13.18 16.37	U	1
Total BTEX		<0.00337	0.00337	mg/kg	03.13.18 16.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	03.13.18 16.37	
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.13.18 16.37	

Certificate of Analytical Results 578596

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H PW Riser 2RP-3790

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578596-003	Date Collected:	03.05.18 09.44	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.12.18 16.00	Basis:	Wet Weight
Seq Number:	3043580				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1710**	24.9	mg/kg	03.13.18 20.35		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.18 10.00	Basis:	Wet Weight
Seq Number:	3043520				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.12.18 18.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	**86.3**	15.0	mg/kg	03.12.18 18.58		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**28.9**	15.0	mg/kg	03.12.18 18.58		1
Total TPH	PHC635	**115**	15.0	mg/kg	03.12.18 18.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	03.12.18 18.58	
o-Terphenyl	84-15-1	87	%	70-135	03.12.18 18.58	

Certificate of Analytical Results 578596

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H PW Riser 2RP-3790

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578596-003	Date Collected:	03.05.18 09.44	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.11.18 09.00	Basis:	Wet Weight
Seq Number:	3043732				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.11.18 16.24	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.11.18 16.24	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.11.18 16.24	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.11.18 16.24	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.11.18 16.24	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.11.18 16.24	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.11.18 16.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	70-130	03.11.18 16.24	
4-Bromofluorobenzene	460-00-4	110	%	70-130	03.11.18 16.24	

Certificate of Analytical Results 578596

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H PW Riser 2RP-3790

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578596-004	Date Collected:	03.05.18 09.50	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.12.18 16.00	Basis:	Wet Weight
Seq Number:	3043580				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1390**	4.97	mg/kg	03.13.18 20.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.18 10.00	Basis:	Wet Weight
Seq Number:	3043520				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.12.18 19.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.12.18 19.17	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	03.12.18 19.17	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.12.18 19.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	03.12.18 19.17	
o-Terphenyl	84-15-1	99	%	70-135	03.12.18 19.17	

Certificate of Analytical Results 578596

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H PW Riser 2RP-3790

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578596-004	Date Collected:	03.05.18 09.50	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.13.18 08.00	Basis:	Wet Weight
Seq Number:	3043536				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00327	0.00327	mg/kg	03.13.18 16.56	U	1
Toluene	108-88-3	<0.00327	0.00327	mg/kg	03.13.18 16.56	U	1
Ethylbenzene	100-41-4	<0.00327	0.00327	mg/kg	03.13.18 16.56	U	1
m,p-Xylenes	179601-23-1	<0.00654	0.00654	mg/kg	03.13.18 16.56	U	1
o-Xylene	95-47-6	<0.00327	0.00327	mg/kg	03.13.18 16.56	U	1
Total Xylenes	1330-20-7	<0.00327	0.00327	mg/kg	03.13.18 16.56	U	1
Total BTEX		<0.00327	0.00327	mg/kg	03.13.18 16.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.13.18 16.56	
1,4-Difluorobenzene	540-36-3	88	%	70-130	03.13.18 16.56	

Certificate of Analytical Results 578596

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H PW Riser 2RP-3790

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578596-005	Date Collected:	03.05.18 09.56	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	OJS			% Moisture:	
Analyst:	OJS	Date Prep:	03.12.18 16.00	Basis:	Wet Weight
Seq Number:	3043580				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**29.1**	5.00	mg/kg	03.13.18 20.46		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.10.18 10.00	Basis:	Wet Weight
Seq Number:	3043412				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.18 00.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.18 00.13	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	03.11.18 00.13	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.18 00.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	03.11.18 00.13	
o-Terphenyl	84-15-1	88	%	70-135	03.11.18 00.13	

Certificate of Analytical Results 578596

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H PW Riser 2RP-3790

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	03.07.18 15.08
Lab Sample Id:	578596-005	Date Collected:	03.05.18 09.56	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	03.11.18 09.00	Basis:	Wet Weight
Seq Number:	3043732				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.11.18 17.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.11.18 17.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.11.18 17.03	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.11.18 17.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.11.18 17.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.11.18 17.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.11.18 17.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	70-130	03.11.18 17.03	
4-Bromofluorobenzene	460-00-4	106	%	70-130	03.11.18 17.03	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

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 578596

LT Environmental, Inc.

PLU CVX JV RR 003H PW Riser 2RP-3790

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3043580 — Matrix: Solid — Date Prep: 03.12.18
MB Sample Id: 7640646-1-BLK — LCS Sample Id: 7640646-1-BKS — LCSD Sample Id: 7640646-1-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	271	108	244	98	90-110	10	20	mg/kg	03.13.18 15:11	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3043580 — Matrix: Soil — Date Prep: 03.12.18
Parent Sample Id: 578595-002 — MS Sample Id: 578595-002 S — MSD Sample Id: 578595-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	92.9	249	381	116	383	117	90-110	1	20	mg/kg	03.13.18 17:56	X

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3043580 — Matrix: Soil — Date Prep: 03.12.18
Parent Sample Id: 578928-001 — MS Sample Id: 578928-001 S — MSD Sample Id: 578928-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	174	247	444	109	442	109	90-110	0	20	mg/kg	03.13.18 15:34	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3043412 — Matrix: Solid — Date Prep: 03.10.18
MB Sample Id: 7640552-1-BLK — LCS Sample Id: 7640552-1-BKS — LCSD Sample Id: 7640552-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1090	109	943	94	70-135	14	35	mg/kg	03.10.18 23:34	
Diesel Range Organics (DRO)	<15.0	1000	984	98	832	83	70-135	17	35	mg/kg	03.10.18 23:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	82		121		94		70-135	%	03.10.18 23:34
o-Terphenyl	88		111		87		70-135	%	03.10.18 23:34

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

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

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

Final 1.000

QC Summary 578596

LT Environmental, Inc.

PLU CVX JV RR 003H PW Riser 2RP-3790

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3043520 — Matrix: Solid — Date Prep: 03.11.18
MB Sample Id: 7640556-1-BLK — LCS Sample Id: 7640556-1-BKS — LCSD Sample Id: 7640556-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	985	99	981	98	70-135	0	35	mg/kg	03.12.18 11:05	
Diesel Range Organics (DRO)	<15.0	1000	894	89	866	87	70-135	3	35	mg/kg	03.12.18 11:05	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		106		105		70-135	%	03.12.18 11:05
o-Terphenyl	93		97		88		70-135	%	03.12.18 11:05

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3043412 — Matrix: Soil — Date Prep: 03.10.18
Parent Sample Id: 578596-005 — MS Sample Id: 578596-005 S — MSD Sample Id: 578596-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	998	915	92	967	97	70-135	6	35	mg/kg	03.11.18 00:33	
Diesel Range Organics (DRO)	<15.0	998	800	80	839	84	70-135	5	35	mg/kg	03.11.18 00:33	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		112		70-135	%	03.11.18 00:33
o-Terphenyl	92		98		70-135	%	03.11.18 00:33

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3043520 — Matrix: Soil — Date Prep: 03.11.18
Parent Sample Id: 578593-001 — MS Sample Id: 578593-001 S — MSD Sample Id: 578593-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	998	879	88	997	100	70-135	13	35	mg/kg	03.12.18 12:06	
Diesel Range Organics (DRO)	<15.0	998	788	79	965	97	70-135	20	35	mg/kg	03.12.18 12:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		96		70-135	%	03.12.18 12:06
o-Terphenyl	89		98		70-135	%	03.12.18 12:06

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

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

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

Final 1.000

QC Summary 578596

LT Environmental, Inc.

PLU CVX JV RR 003H PW Riser 2RP-3790

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3043732 — Matrix: Solid — Date Prep: 03.11.18
MB Sample Id: 7640589-1-BLK — LCS Sample Id: 7640589-1-BKS — LCSD Sample Id: 7640589-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0880	89	0.0834	84	70-130	5	35	mg/kg	03.11.18 12:34	
Toluene	<0.00199	0.0994	0.0938	94	0.0891	90	70-130	5	35	mg/kg	03.11.18 12:34	
Ethylbenzene	<0.00199	0.0994	0.106	107	0.101	102	70-130	5	35	mg/kg	03.11.18 12:34	
m,p-Xylenes	<0.00398	0.199	0.208	105	0.200	101	70-130	4	35	mg/kg	03.11.18 12:34	
o-Xylene	<0.00199	0.0994	0.104	105	0.0989	100	70-130	5	35	mg/kg	03.11.18 12:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	84		91		87		70-130	%	03.11.18 12:34
4-Bromofluorobenzene	86		118		119		70-130	%	03.11.18 12:34

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3043536 — Matrix: Solid — Date Prep: 03.13.18
MB Sample Id: 7640690-1-BLK — LCS Sample Id: 7640690-1-BKS — LCSD Sample Id: 7640690-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0768	77	0.0766	77	70-130	0	35	mg/kg	03.13.18 06:58	
Toluene	<0.00199	0.0994	0.0824	83	0.0825	83	70-130	0	35	mg/kg	03.13.18 06:58	
Ethylbenzene	<0.00199	0.0994	0.0953	96	0.0962	96	70-130	1	35	mg/kg	03.13.18 06:58	
m,p-Xylenes	<0.00398	0.199	0.189	95	0.190	95	70-130	1	35	mg/kg	03.13.18 06:58	
o-Xylene	<0.00199	0.0994	0.0951	96	0.0959	96	70-130	1	35	mg/kg	03.13.18 06:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		92		90		70-130	%	03.13.18 06:58
4-Bromofluorobenzene	108		110		115		70-130	%	03.13.18 06:58

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3043732 — Matrix: Soil — Date Prep: 03.11.18
Parent Sample Id: 578596-001 — MS Sample Id: 578596-001 S — MSD Sample Id: 578596-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0624	62	0.0565	56	70-130	10	35	mg/kg	03.11.18 13:13	X
Toluene	<0.00200	0.100	0.0546	55	0.0381	38	70-130	36	35	mg/kg	03.11.18 13:13	XF
Ethylbenzene	<0.00200	0.100	0.0452	45	0.0253	25	70-130	56	35	mg/kg	03.11.18 13:13	XF
m,p-Xylenes	<0.00401	0.200	0.0864	43	0.0477	24	70-130	58	35	mg/kg	03.11.18 13:13	XF
o-Xylene	<0.00200	0.100	0.0467	47	0.0256	25	70-130	58	35	mg/kg	03.11.18 13:13	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	87		95		70-130	%	03.11.18 13:13
4-Bromofluorobenzene	116		114		70-130	%	03.11.18 13:13

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

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

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 578596

LT Environmental, Inc.

PLU CVX JV RR 003H PW Riser 2RP-3790

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

Seq Number: 3043536 Matrix: Soil Date Prep: 03.13.18

Parent Sample Id: 578597-001 MS Sample Id: 578597-001 S MSD Sample Id: 578597-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0674	67	0.0563	56	70-130	18	35	mg/kg	03.13.18 07:37	X
Toluene	<0.00200	0.100	0.0640	64	0.0594	59	70-130	7	35	mg/kg	03.13.18 07:37	X
Ethylbenzene	<0.00200	0.100	0.0617	62	0.0613	61	70-130	1	35	mg/kg	03.13.18 07:37	X
m,p-Xylenes	<0.00401	0.200	0.113	57	0.113	56	70-130	0	35	mg/kg	03.13.18 07:37	X
o-Xylene	<0.00200	0.100	0.0602	60	0.0585	58	70-130	3	35	mg/kg	03.13.18 07:37	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		85		70-130	%	03.13.18 07:37
4-Bromofluorobenzene	114		127		70-130	%	03.13.18 07:37

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

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

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

Page 59 of 132

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

Dallas Texas (214-902-0300)

San Antonio, Texas (210-509-3334)

Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

CHAIN OF CUSTODY

Page 1 Of 1

PLU CVX JV RR 003H PW Riser
2RP-3790

Xenco Quote #

Xenco Job # 578596

Client / Reporting Information

Company Name / Branch: LTE / Permian

Company Address: 3300 N. A Street Bldg 1 Suite 103 Midland TX 79705

Email: Abaker@ltenv.com

Phone No: 432-704-5178

Project Contact: Adrian Baker

Samplers's Name: Aaron Williamson

Project Information

Project Name/Number: PLU CVX JV RR 003H PW Riser ~~PLU #3H RISER~~ 2RP-3790

Project Location: NM

Invoice To: XTO Energy - Kyle Littrell

PO Number: ~~2RP 3790~~ 30-015-37800

Analytical Information

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Btex EPA Method 8021	TPH EPA Method 8015	Chloride EPA Method 300.1	Field Comments
1	SS1	6"	3/5/18	0930	soil	1									X	X	X	
2	SS2			0938											X	X	X	
3	SS3			0944											X	X	X	
4	SS4			0950											X	X	X	
5	SS5			0956											X	X	X	
6																		
7																		
8																		
9																		
10																		

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY
- [x] STANDARD TAT

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level III Std QC+ Forms
- [ ] Level 3 (CLP Forms)
- [ ] TRRP Checklist
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] TRRP Level IV
- [ ] UST / RG -411

Notes:

Temp: 2.6 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 2.4

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Eddy Carrasco	3/6/18 1530			3/6 1930	
2						
3		3/7 14:30			3/7/18 15:08	
4						
5						

Custody Seal,# Preserved where applicable On Ice Cooler Temp. Thermo. Corr. Factor

Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

Final 1.000
Page 21 of 22
Received by OCD: 4/9/2020 2:22:27 PM
Released to Imaging: 9/15/2021 10:29:53 AM

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03/07/2018 03:08:00 PM

Work Order #: 578596

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)?	2.4	
#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?	**No**	TPH was received as bulk jars
#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: Connie Hernandez Date: 03/08/2018

Connie Hernandez

Checklist reviewed by: Jessica Kramer Date: 03/08/2018

Jessica Kramer

Analytical Report 641715

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU CVX JV RR 003H

012918078 (2RP-3790)

06-NOV-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

Released to Imaging: 9/15/2021 10:29:53 AM

06-NOV-19

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

Reference: XENCO Report No(s): **641715**
PLU CVX JV RR 003H
Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 641715. 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. 641715 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Sample Cross Reference 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	10-30-19 12:15	2 ft	641715-001
BH02	S	10-30-19 14:18	1 ft	641715-002
BH03	S	10-30-19 13:29	1.5 ft	641715-003
BH04	S	10-30-19 14:12	1.5 ft	641715-004
BH05	S	10-30-19 14:01	1 ft	641715-005
BH06	S	10-30-19 14:36	0.5 ft	641715-006
BH06A	S	10-30-19 14:44	1.5 ft	641715-007
BH07	S	10-30-19 14:51	0.5 ft	641715-008
BH07A	S	10-30-19 15:08	1.5 ft	641715-009
BH08	S	10-30-19 15:35	0.5 ft	641715-010
BH08A	S	10-30-19 15:42	2 ft	641715-011
BH09	S	10-30-19 15:50	0.5 ft	641715-012
BH09A	S	10-30-19 16:00	2 ft	641715-013

Released to Imaging: 9/15/2021 10:29:53 AM

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV RR 003H

Project ID: *012918078 (2RP-3790)*
Work Order Number(s): *641715*

Report Date: *06-NOV-19*
Date Received: *10/31/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3106115 Chloride by EPA 300

Lab Sample ID 641715-013 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 641715-003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013.

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

Batch: LBA-3106455 BTEX by EPA 8021B

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

Certificate of Analysis Summary 641715

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV RR 003H

Project Id: 012918078 (2RP-3790)
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Thu Oct-31-19 02:10 pm
Report Date: 06-NOV-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	641715-001		641715-002		641715-003		641715-004		641715-005		641715-006	
	Field Id:	BH01		BH02		BH03		BH04		BH05		BH06	
	Depth:	2- ft		1- ft		1.5- ft		1.5- ft		1- ft		0.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-30-19 12:15		Oct-30-19 14:18		Oct-30-19 13:29		Oct-30-19 14:12		Oct-30-19 14:01		Oct-30-19 14:36	
BTEX by EPA 8021B	*Extracted:*	Nov-04-19 16:30		Nov-04-19 16:30		Nov-04-19 16:30		Nov-04-19 16:30		Nov-04-19 16:30		Nov-04-19 16:30	
	Analyzed:	Nov-04-19 23:35		Nov-04-19 23:55		Nov-05-19 00:15		Nov-05-19 00:36		Nov-05-19 01:54		Nov-05-19 02:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00198	0.00198	<0.00198	0.00198	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
Toluene		<0.00198	0.00198	<0.00198	0.00198	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		<0.00198	0.00198	<0.00198	0.00198	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		<0.00397	0.00397	<0.00396	0.00396	<0.00404	0.00404	<0.00398	0.00398	<0.00399	0.00399	<0.00398	0.00398
o-Xylene		<0.00198	0.00198	<0.00198	0.00198	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes		<0.00198	0.00198	<0.00198	0.00198	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
Total BTEX		<0.00198	0.00198	<0.00198	0.00198	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199
Chloride by EPA 300	*Extracted:*	Oct-31-19 15:20		Oct-31-19 15:20		Oct-31-19 17:00		Oct-31-19 17:00		Oct-31-19 17:00		Oct-31-19 17:00	
	Analyzed:	Oct-31-19 23:29		Oct-31-19 23:36		Oct-31-19 17:43		Oct-31-19 18:13		Oct-31-19 18:23		Oct-31-19 18:33	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1110	4.96	<5.00	5.00	866	5.02	6640	50.0	1710	25.2	747	5.03
TPH by SW8015 Mod	*Extracted:*	Nov-01-19 10:00		Nov-01-19 10:00		Nov-01-19 10:00		Nov-01-19 10:00		Nov-01-19 10:00		Nov-01-19 10:00	
	Analyzed:	Nov-01-19 12:31		Nov-01-19 13:34		Nov-01-19 13:55		Nov-01-19 14:16		Nov-01-19 14:37		Nov-01-19 14:58	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9	<49.9	49.9	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9	<49.9	49.9	<50.0	50.0
Total GRO-DRO		<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9	<49.9	49.9	<50.0	50.0
Total TPH		<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9	<49.9	49.9	<50.0	50.0

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

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 641715

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV RR 003H

Project Id: 012918078 (2RP-3790)
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Thu Oct-31-19 02:10 pm
Report Date: 06-NOV-19
Project Manager: Jessica Kramer

Analysis Requested		641715-007		641715-008		641715-009		641715-010		641715-011		641715-012	
	Field Id:	BH06A		BH07		BH07A		BH08		BH08A		BH09	
	Depth:	1.5- ft		0.5- ft		1.5- ft		0.5- ft		2- ft		0.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-30-19 14:44		Oct-30-19 14:51		Oct-30-19 15:08		Oct-30-19 15:35		Oct-30-19 15:42		Oct-30-19 15:50	
BTEX by EPA 8021B	*Extracted:*	Nov-04-19 16:30		Nov-04-19 16:30		Nov-04-19 16:30		Nov-04-19 16:30		Nov-04-19 16:30		Nov-04-19 16:30	
	Analyzed:	Nov-05-19 02:35		Nov-05-19 02:55		Nov-05-19 03:15		Nov-05-19 03:35		Nov-05-19 03:55		Nov-05-19 04:16	
	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	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201
m,p-Xylenes		<0.00399	0.00399	<0.00400	0.00400	<0.00398	0.00398	<0.00401	0.00401	<0.00402	0.00402	<0.00402	0.00402
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00201	0.00201
Chloride by EPA 300	*Extracted:*	Oct-31-19 17:00		Oct-31-19 17:00		Oct-31-19 17:00		Oct-31-19 17:00		Oct-31-19 17:00		Oct-31-19 17:00	
	Analyzed:	Oct-31-19 18:43		Oct-31-19 19:13		Oct-31-19 19:23		Oct-31-19 19:33		Oct-31-19 19:43		Oct-31-19 19:53	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1890	25.0	232	5.00	1320	5.05	21.9	5.03	18.4	5.00	7.46	5.01
TPH by SW8015 Mod	*Extracted:*	Nov-01-19 10:00		Nov-01-19 10:00		Nov-01-19 10:00		Nov-01-19 10:00		Nov-01-19 10:00		Nov-01-19 10:00	
	Analyzed:	Nov-01-19 15:19		Nov-01-19 15:41		Nov-01-19 16:02		Nov-01-19 16:23		Nov-01-19 17:04		Nov-01-19 17:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8
Diesel Range Organics (DRO)		<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8
Total GRO-DRO		<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8
Total TPH		<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8

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

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

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 641715

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV RR 003H

Project Id: 012918078 (2RP-3790)
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Thu Oct-31-19 02:10 pm
Report Date: 06-NOV-19
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	641715-013					
	Field Id:	BH09A					
	Depth:	2- ft					
	Matrix:	SOIL					
	Sampled:	Oct-30-19 16:00					
BTEX by EPA 8021B	***Extracted:***	Nov-04-19 16:30					
	Analyzed:	Nov-05-19 04:36					
	Units/RL:	mg/kg	RL				
Benzene		<0.00200	0.00200				
Toluene		<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200				
m,p-Xylenes		<0.00400	0.00400				
o-Xylene		<0.00200	0.00200				
Total Xylenes		<0.00200	0.00200				
Total BTEX		<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	Oct-31-19 17:00					
	Analyzed:	Oct-31-19 20:03					
	Units/RL:	mg/kg	RL				
Chloride		7.85	5.04				
TPH by SW8015 Mod	***Extracted:***	Nov-01-19 10:00					
	Analyzed:	Nov-01-19 17:46					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0				
Diesel Range Organics (DRO)		<50.0	50.0				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0				
Total GRO-DRO		<50.0	50.0				
Total TPH		<50.0	50.0				

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

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-001	Date Collected:	10.30.19 12.15	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.31.19 15.20	Basis:	Wet Weight
Seq Number:	3106109				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1110**	4.96	mg/kg	10.31.19 23.29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 10.00	Basis:	Wet Weight
Seq Number:	3106224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.01.19 12.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.01.19 12.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.01.19 12.31	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.01.19 12.31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.01.19 12.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.01.19 12.31	
o-Terphenyl	84-15-1	103	%	70-135	11.01.19 12.31	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-001	Date Collected:	10.30.19 12.15	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.04.19 16.30	Basis:	Wet Weight
Seq Number:	3106455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.04.19 23.35	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.04.19 23.35	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.04.19 23.35	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.04.19 23.35	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.04.19 23.35	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.04.19 23.35	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.04.19 23.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.04.19 23.35	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.04.19 23.35	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-002	Date Collected:	10.30.19 14.18	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.31.19 15.20	Basis:	Wet Weight
Seq Number:	3106109				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	10.31.19 23.36	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 10.00	Basis:	Wet Weight
Seq Number:	3106224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.01.19 13.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.01.19 13.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.01.19 13.34	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.01.19 13.34	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.01.19 13.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	11.01.19 13.34	
o-Terphenyl	84-15-1	95	%	70-135	11.01.19 13.34	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-002	Date Collected:	10.30.19 14.18	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.04.19 16.30	Basis:	Wet Weight
Seq Number:	3106455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.04.19 23.55	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.04.19 23.55	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.04.19 23.55	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	11.04.19 23.55	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.04.19 23.55	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.04.19 23.55	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.04.19 23.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.04.19 23.55	
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.04.19 23.55	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-003	Date Collected:	10.30.19 13.29	Sample Depth:	1.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.00	Basis:	Wet Weight
Seq Number:	3106115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**866**	5.02	mg/kg	10.31.19 17.43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 10.00	Basis:	Wet Weight
Seq Number:	3106224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.01.19 13.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.01.19 13.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.01.19 13.55	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.01.19 13.55	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.01.19 13.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.01.19 13.55	
o-Terphenyl	84-15-1	99	%	70-135	11.01.19 13.55	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-003	Date Collected:	10.30.19 13.29	Sample Depth:	1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.04.19 16.30	Basis:	Wet Weight
Seq Number:	3106455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.05.19 00.15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.05.19 00.15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.05.19 00.15	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.05.19 00.15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.05.19 00.15	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.05.19 00.15	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.05.19 00.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.05.19 00.15	
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.05.19 00.15	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-004	Date Collected:	10.30.19 14.12	Sample Depth:	1.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.00	Basis:	Wet Weight
Seq Number:	3106115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6640**	50.0	mg/kg	10.31.19 18.13		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 10.00	Basis:	Wet Weight
Seq Number:	3106224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.01.19 14.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.01.19 14.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.01.19 14.16	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.01.19 14.16	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.01.19 14.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	11.01.19 14.16	
o-Terphenyl	84-15-1	104	%	70-135	11.01.19 14.16	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-004	Date Collected:	10.30.19 14.12	Sample Depth:	1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.04.19 16.30	Basis:	Wet Weight
Seq Number:	3106455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.05.19 00.36	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.05.19 00.36	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.05.19 00.36	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.05.19 00.36	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.05.19 00.36	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.05.19 00.36	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.05.19 00.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.05.19 00.36	
4-Bromofluorobenzene	460-00-4	108	%	70-130	11.05.19 00.36	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH05**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-005	Date Collected:	10.30.19 14.01	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.00	Basis:	Wet Weight
Seq Number:	3106115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1710**	25.2	mg/kg	10.31.19 18.23		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 10.00	Basis:	Wet Weight
Seq Number:	3106224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.01.19 14.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.01.19 14.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.01.19 14.37	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.01.19 14.37	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.01.19 14.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	11.01.19 14.37	
o-Terphenyl	84-15-1	95	%	70-135	11.01.19 14.37	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH05**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-005	Date Collected:	10.30.19 14.01	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.04.19 16.30	Basis:	Wet Weight
Seq Number:	3106455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.05.19 01.54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.05.19 01.54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.05.19 01.54	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.05.19 01.54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.05.19 01.54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.05.19 01.54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.05.19 01.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.05.19 01.54	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.05.19 01.54	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH06**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-006	Date Collected:	10.30.19 14.36	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.00	Basis:	Wet Weight
Seq Number:	3106115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**747**	5.03	mg/kg	10.31.19 18.33		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 10.00	Basis:	Wet Weight
Seq Number:	3106224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.01.19 14.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.01.19 14.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.01.19 14.58	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.01.19 14.58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.01.19 14.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.01.19 14.58	
o-Terphenyl	84-15-1	99	%	70-135	11.01.19 14.58	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH06**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-006	Date Collected:	10.30.19 14.36	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.04.19 16.30	Basis:	Wet Weight
Seq Number:	3106455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.05.19 02.15	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.05.19 02.15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.05.19 02.15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.05.19 02.15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.05.19 02.15	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.05.19 02.15	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.05.19 02.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	11.05.19 02.15	
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.05.19 02.15	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH06A**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-007	Date Collected:	10.30.19 14.44	Sample Depth:	1.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.00	Basis:	Wet Weight
Seq Number:	3106115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1890**	25.0	mg/kg	10.31.19 18.43		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 10.00	Basis:	Wet Weight
Seq Number:	3106224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.01.19 15.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.01.19 15.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.01.19 15.19	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.01.19 15.19	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.01.19 15.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	11.01.19 15.19	
o-Terphenyl	84-15-1	94	%	70-135	11.01.19 15.19	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH06A**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-007	Date Collected:	10.30.19 14.44	Sample Depth:	1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.04.19 16.30	Basis:	Wet Weight
Seq Number:	3106455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.05.19 02.35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.05.19 02.35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.05.19 02.35	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.05.19 02.35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.05.19 02.35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.05.19 02.35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.05.19 02.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	11.05.19 02.35	
1,4-Difluorobenzene	540-36-3	112	%	70-130	11.05.19 02.35	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH07**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-008	Date Collected:	10.30.19 14.51	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.00	Basis:	Wet Weight
Seq Number:	3106115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**232**	5.00	mg/kg	10.31.19 19.13		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 10.00	Basis:	Wet Weight
Seq Number:	3106224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.01.19 15.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.01.19 15.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.01.19 15.41	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.01.19 15.41	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.01.19 15.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.01.19 15.41	
o-Terphenyl	84-15-1	100	%	70-135	11.01.19 15.41	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH07**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-008	Date Collected:	10.30.19 14.51	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.04.19 16.30	Basis:	Wet Weight
Seq Number:	3106455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.05.19 02.55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.05.19 02.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.05.19 02.55	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.05.19 02.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.05.19 02.55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.05.19 02.55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.05.19 02.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.05.19 02.55	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.05.19 02.55	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH07A**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-009	Date Collected:	10.30.19 15.08	Sample Depth:	1.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.00	Basis:	Wet Weight
Seq Number:	3106115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1320**	5.05	mg/kg	10.31.19 19.23		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 10.00	Basis:	Wet Weight
Seq Number:	3106224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.01.19 16.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.01.19 16.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.01.19 16.02	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.01.19 16.02	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.01.19 16.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.01.19 16.02	
o-Terphenyl	84-15-1	102	%	70-135	11.01.19 16.02	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH07A**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-009	Date Collected:	10.30.19 15.08	Sample Depth:	1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.04.19 16.30	Basis:	Wet Weight
Seq Number:	3106455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.05.19 03.15	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.05.19 03.15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.05.19 03.15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.05.19 03.15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.05.19 03.15	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.05.19 03.15	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.05.19 03.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.05.19 03.15	
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.05.19 03.15	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH08**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-010	Date Collected:	10.30.19 15.35	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.00	Basis:	Wet Weight
Seq Number:	3106115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**21.9**	5.03	mg/kg	10.31.19 19.33		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 10.00	Basis:	Wet Weight
Seq Number:	3106224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.01.19 16.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.01.19 16.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.01.19 16.23	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.01.19 16.23	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.01.19 16.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.01.19 16.23	
o-Terphenyl	84-15-1	98	%	70-135	11.01.19 16.23	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH08**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-010	Date Collected:	10.30.19 15.35	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.04.19 16.30	Basis:	Wet Weight
Seq Number:	3106455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.05.19 03.35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.05.19 03.35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.05.19 03.35	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.05.19 03.35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.05.19 03.35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.05.19 03.35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.05.19 03.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	11.05.19 03.35	
4-Bromofluorobenzene	460-00-4	73	%	70-130	11.05.19 03.35	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH08A**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-011	Date Collected:	10.30.19 15.42	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.00	Basis:	Wet Weight
Seq Number:	3106115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.4**	5.00	mg/kg	10.31.19 19.43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 10.00	Basis:	Wet Weight
Seq Number:	3106224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.01.19 17.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.01.19 17.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.01.19 17.04	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.01.19 17.04	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.01.19 17.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.01.19 17.04	
o-Terphenyl	84-15-1	101	%	70-135	11.01.19 17.04	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH08A**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-011	Date Collected:	10.30.19 15.42	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.04.19 16.30	Basis:	Wet Weight
Seq Number:	3106455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.05.19 03.55	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.05.19 03.55	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.05.19 03.55	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.05.19 03.55	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.05.19 03.55	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.05.19 03.55	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.05.19 03.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.05.19 03.55	
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.05.19 03.55	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH09**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-012	Date Collected:	10.30.19 15.50	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.00	Basis:	Wet Weight
Seq Number:	3106115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.46**	5.01	mg/kg	10.31.19 19.53		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 10.00	Basis:	Wet Weight
Seq Number:	3106224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.01.19 17.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.01.19 17.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.01.19 17.25	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.01.19 17.25	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.01.19 17.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.01.19 17.25	
o-Terphenyl	84-15-1	99	%	70-135	11.01.19 17.25	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH09**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-012	Date Collected:	10.30.19 15.50	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.04.19 16.30	Basis:	Wet Weight
Seq Number:	3106455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.05.19 04.16	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.05.19 04.16	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.05.19 04.16	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.05.19 04.16	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.05.19 04.16	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.05.19 04.16	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.05.19 04.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.05.19 04.16	
4-Bromofluorobenzene	460-00-4	70	%	70-130	11.05.19 04.16	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH09A**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-013	Date Collected:	10.30.19 16.00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.00	Basis:	Wet Weight
Seq Number:	3106115				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.85**	5.04	mg/kg	10.31.19 20.03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 10.00	Basis:	Wet Weight
Seq Number:	3106224				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.01.19 17.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.01.19 17.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.01.19 17.46	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.01.19 17.46	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.01.19 17.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	11.01.19 17.46	
o-Terphenyl	84-15-1	96	%	70-135	11.01.19 17.46	

Certificate of Analytical Results 641715

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H

Sample Id:	**BH09A**	Matrix:	Soil	Date Received:	10.31.19 14.10
Lab Sample Id:	641715-013	Date Collected:	10.30.19 16.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.04.19 16.30	Basis:	Wet Weight
Seq Number:	3106455				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.05.19 04.36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.05.19 04.36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.05.19 04.36	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.05.19 04.36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.05.19 04.36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.05.19 04.36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.05.19 04.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	11.05.19 04.36	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.05.19 04.36	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

Released to Imaging: 9/15/2021 10:29:53 AM

QC Summary 641715

LT Environmental, Inc.

PLU CVX JV RR 003H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106109 — Matrix: Solid — Date Prep: 10.31.19
MB Sample Id: 7689345-1-BLK — LCS Sample Id: 7689345-1-BKS — LCSD Sample Id: 7689345-1-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	243	97	244	98	90-110	0	20	mg/kg	10.31.19 20:23	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106115 — Matrix: Solid — Date Prep: 10.31.19
MB Sample Id: 7689353-1-BLK — LCS Sample Id: 7689353-1-BKS — LCSD Sample Id: 7689353-1-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	245	98	244	98	90-110	0	20	mg/kg	10.31.19 17:23	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106109 — Matrix: Soil — Date Prep: 10.31.19
Parent Sample Id: 641638-007 — MS Sample Id: 641638-007 S — MSD Sample Id: 641638-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	746	250	970	90	963	87	90-110	1	20	mg/kg	10.31.19 20:43	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106109 — Matrix: Soil — Date Prep: 10.31.19
Parent Sample Id: 641684-007 — MS Sample Id: 641684-007 S — MSD Sample Id: 641684-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	219	248	465	99	465	99	90-110	0	20	mg/kg	10.31.19 22:16	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106115 — Matrix: Soil — Date Prep: 10.31.19
Parent Sample Id: 641715-003 — MS Sample Id: 641715-003 S — MSD Sample Id: 641715-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	866	251	1050	73	1060	77	90-110	1	20	mg/kg	10.31.19 17:53	X

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 641715

LT Environmental, Inc.

PLU CVX JV RR 003H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3106115 Matrix: Soil Date Prep: 10.31.19
Parent Sample Id: 641715-013 MS Sample Id: 641715-013 S MSD Sample Id: 641715-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7.85	252	254	98	253	97	90-110	0	20	mg/kg	10.31.19 20:13	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3106224 Matrix: Solid Date Prep: 11.01.19
MB Sample Id: 7689385-1-BLK LCS Sample Id: 7689385-1-BKS LCSD Sample Id: 7689385-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1000	100	1010	101	70-135	1	20	mg/kg	11.01.19 11:49	
Diesel Range Organics (DRO)	<15.0	1000	1070	107	1070	107	70-135	0	20	mg/kg	11.01.19 11:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		109		106		70-135	%	11.01.19 11:49
o-Terphenyl	101		107		101		70-135	%	11.01.19 11:49

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3106224 Matrix: Solid Date Prep: 11.01.19
MB Sample Id: 7689385-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.01.19 11:28	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3106224 Matrix: Soil Date Prep: 11.01.19
Parent Sample Id: 641715-001 MS Sample Id: 641715-001 S MSD Sample Id: 641715-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	1030	103	1030	103	70-135	0	20	mg/kg	11.01.19 12:52	
Diesel Range Organics (DRO)	24.1	997	1110	109	1120	110	70-135	1	20	mg/kg	11.01.19 12:52	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		105		70-135	%	11.01.19 12:52
o-Terphenyl	103		101		70-135	%	11.01.19 12:52

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

QC Summary 641715

LT Environmental, Inc.

PLU CVX JV RR 003H

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

Seq Number: 3106455 Matrix: Solid Date Prep: 11.04.19

MB Sample Id: 7689580-1-BLK LCS Sample Id: 7689580-1-BKS LCSD Sample Id: 7689580-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0991	99	0.101	101	70-130	2	35	mg/kg	11.04.19 19:34	
Toluene	<0.00200	0.100	0.101	101	0.0982	98	70-130	3	35	mg/kg	11.04.19 19:34	
Ethylbenzene	<0.00200	0.100	0.101	101	0.101	101	70-130	0	35	mg/kg	11.04.19 19:34	
m,p-Xylenes	<0.00400	0.200	0.205	103	0.206	103	70-130	0	35	mg/kg	11.04.19 19:34	
o-Xylene	<0.00200	0.100	0.0990	99	0.0946	95	70-130	5	35	mg/kg	11.04.19 19:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		97		101		70-130	%	11.04.19 19:34
4-Bromofluorobenzene	96		108		110		70-130	%	11.04.19 19:34

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

Seq Number: 3106455 Matrix: Soil Date Prep: 11.04.19

Parent Sample Id: 641715-001 MS Sample Id: 641715-001 S MSD Sample Id: 641715-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0849	84	0.0863	86	70-130	2	35	mg/kg	11.04.19 20:14	
Toluene	<0.00202	0.101	0.0805	80	0.0878	88	70-130	9	35	mg/kg	11.04.19 20:14	
Ethylbenzene	<0.00202	0.101	0.0835	83	0.0856	86	70-130	2	35	mg/kg	11.04.19 20:14	
m,p-Xylenes	<0.00403	0.202	0.166	82	0.174	87	70-130	5	35	mg/kg	11.04.19 20:14	
o-Xylene	<0.00202	0.101	0.0800	79	0.0814	81	70-130	2	35	mg/kg	11.04.19 20:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		99		70-130	%	11.04.19 20:14
4-Bromofluorobenzene	115		106		70-130	%	11.04.19 20:14

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

Page 98 of 132

Chain of Custody

Work Order No: 104715

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701
www.xenco.com

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

Work Order Comments

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

Project Name:	PLU CVX JV RR 003H	Turn Around	
Project Number:	0129180778 (2RP-3790)	Routine ☒	
Project Location	Eddy County	Rush:	
Sampler's Name:	Kaleb Henry	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	2.0 / 1.9	Thermometer ID	T6
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

ANALYSIS REQUEST

Preservative Codes

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

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

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
	BH01	S	10/30/19	12:15	2'	1	X	X	X	
	BH02	S	10/30/19	14:18	1'	1	X	X	X	
	BH03	S	10/30/19	13:29	1.5'	1	X	X	X	
	BH04	S	10/30/19	14:12	1.5'	1	X	X	X	
	BH05	S	10/30/19	14:01	1'	1	X	X	X	
	BH06	S	10/30/19	14:36	0.5'	1	X	X	X	
	BH06A	S	10/30/19	14:44	1.5'	1	X	X	X	
	BH07	S	10/30/19	14:51	0.5'	1	X	X	X	
	BH07A	S	10/30/19	15:08	1.5'	1	X	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010:** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Kaleb Crawford		10/31/19 1010	2		
3				4		
5				6		

Revised Date 022619 Rev. 2019.1

Received by OCD: 4/9/2020 2:22:27 PM
Released to Imaging: 9/15/2021 10:29:53 AM
Final 1.000
Page 38 of 40

Page 99 of 132

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Work Order No: 641715

www.xenco.com Page 2 of 2

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

Work Order Comments

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

Project Name:	PLU CVX JV RR 003H	Turn Around	
Project Number:	0129180 78 (2RP-3790)	Routine	☒
Project Location	Eddy County	Rush:	
Sampler's Name:	Kaleb Henry	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	2.0/2.4	Thermometer ID	T6
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	TPH (EDA 8015)	BTEX (EDA 8021)	Chloride (EDA 300.0)
	BH 08	S	10/30/19	15:35	0.5'	1		X	X	X
	BH 08 A	S	10/30/19	15:42	2'	1		X	X	X
	BH 09	S	10/30/19	15:50	0.5'	1		X	X	X
	BH 09 A	S	10/30/19	16:00	2'	1		X	X	X

Preservative Codes

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

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

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

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Kaleb Kaushik		10/31/19 1410	2		
			4		
			6		

Revised Date 022619 Rev. 2019.1

Received by OCD: 4/9/2020 2:22:27 PM
Final 1.000
Page 39 of 40
Released to Imaging: 9/15/2021 10:29:53 AM

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/31/2019 02:10:00 PM

Work Order #: 641715

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)?	2.4
#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: 10/31/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10/31/2019

Jessica Kramer

Analytical Report 643344

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU CVX JV RR 003H (System Riser)

012918078

21-NOV-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

Released to Imaging: 9/15/2021 10:29:53 AM

21-NOV-19

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

Reference: XENCO Report No(s): **643344**
PLU CVX JV RR 003H (System Riser)
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 643344. 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. 643344 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

Released to Imaging: 9/15/2021 10:29:53 AM

Sample Cross Reference 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	11-14-19 11:41	4	643344-001
PH01A	S	11-14-19 12:48	9	643344-002
PH0B	S	11-14-19 13:48	11	643344-003
PH02	S	11-14-19 14:25	2	643344-004
PH02A	S	11-14-19 14:44	5	643344-005
PH02B	S	11-14-19 15:03	7	643344-006
PH03	S	11-14-19 15:50	2	643344-007
PH03A	S	11-14-19 15:59	4 ft	643344-008

Released to Imaging: 9/15/2021 10:29:53 AM

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV RR 003H (System Riser)

Project ID: *012918078*
Work Order Number(s): *643344*

Report Date: *21-NOV-19*
Date Received: *11/15/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3107858 BTEX by EPA 8021B

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

Certificate of Analysis Summary 643344

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV RR 003H (System Riser)

Project Id: 012918078
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Nov-15-19 10:10 am
Report Date: 21-NOV-19
Project Manager: Jessica Kramer

Analysis Requested		643344-001		643344-002		643344-003		643344-004		643344-005		643344-006	
	Field Id:	PH01		PH01A		PH0B		PH02		PH02A		PH02B	
	Depth:	4-		9-		11-		2-		5-		7-	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-14-19 11:41		Nov-14-19 12:48		Nov-14-19 13:48		Nov-14-19 14:25		Nov-14-19 14:44		Nov-14-19 15:03	
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Nov-18-19 14:30		Nov-18-19 14:30		Nov-18-19 14:30		Nov-18-19 14:30		Nov-18-19 14:30		Nov-18-19 14:30	
	Analyzed:	Nov-18-19 18:32		Nov-18-19 18:53		Nov-18-19 19:13		Nov-18-19 19:33		Nov-18-19 19:53		Nov-18-19 20:13	
	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	<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Toluene		<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
m,p-Xylenes		<0.00398	0.00398	<0.00397	0.00397	<0.00396	0.00396	<0.00399	0.00399	<0.00400	0.00400	<0.00402	0.00402
o-Xylene		<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Total Xylenes		<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Total BTEX		<0.00199	0.00199	<0.00198	0.00198	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Nov-19-19 08:30		Nov-19-19 08:30		Nov-19-19 08:30		Nov-19-19 08:30		Nov-19-19 08:30		Nov-19-19 08:30	
	Analyzed:	Nov-19-19 09:46		Nov-19-19 10:06		Nov-19-19 10:13		Nov-19-19 10:20		Nov-19-19 10:26		Nov-19-19 10:33	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		15200	99.4	14000	99.8	10600	49.5	4940	24.8	13200	101	7330	49.6
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Nov-18-19 10:00		Nov-18-19 10:00		Nov-18-19 10:00		Nov-18-19 10:00		Nov-18-19 10:00		Nov-18-19 10:00	
	Analyzed:	Nov-18-19 15:16		Nov-18-19 15:37		Nov-18-19 15:58		Nov-18-19 16:18		Nov-18-19 16:39		Nov-18-19 17:21	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9
Diesel Range Organics (DRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9
Total GRO-DRO		<49.9	49.9	<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9
Total TPH		<49.9	49.9	<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9

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

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 643344

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV RR 003H (System Riser)

Project Id: 012918078
Contact: Dan Moir
Project Location:

Date Received in Lab: Fri Nov-15-19 10:10 am
Report Date: 21-NOV-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	643344-007		643344-008									
	Field Id:	PH03		PH03A									
	Depth:	2-		4- ft									
	Matrix:	SOIL		SOIL									
	Sampled:	Nov-14-19 15:50		Nov-14-19 15:59									
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Nov-18-19 14:30		Nov-18-19 14:30									
	Analyzed:	Nov-18-19 20:33		Nov-18-19 20:53									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Benzene		<0.00201	0.00201	<0.00201	0.00201								
Toluene		<0.00201	0.00201	<0.00201	0.00201								
Ethylbenzene		<0.00201	0.00201	<0.00201	0.00201								
m,p-Xylenes		<0.00402	0.00402	<0.00402	0.00402								
o-Xylene		<0.00201	0.00201	<0.00201	0.00201								
Total Xylenes		<0.00201	0.00201	<0.00201	0.00201								
Total BTEX		<0.00201	0.00201	<0.00201	0.00201								
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Nov-19-19 08:30		Nov-19-19 19:50									
	Analyzed:	Nov-19-19 10:59		Nov-20-19 12:19									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Chloride		214	5.03	280	50.0								
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Nov-18-19 10:00		Nov-18-19 10:00									
	Analyzed:	Nov-18-19 17:42		Nov-18-19 18:03									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<50.0	50.0								
Diesel Range Organics (DRO)		<49.9	49.9	<50.0	50.0								
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0								
Total GRO-DRO		<49.9	49.9	<50.0	50.0								
Total TPH		<49.9	49.9	<50.0	50.0								

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

Jessica Kramer
Project Assistant

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-001	Date Collected:	11.14.19 11.41	Sample Depth:	4

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.19.19 08.30	Basis:	Wet Weight
Seq Number:	3108000			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15200**	99.4	mg/kg	11.19.19 09.46		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.18.19 10.00	Basis:	Wet Weight
Seq Number:	3107930			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.18.19 15.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.18.19 15.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.18.19 15.16	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.18.19 15.16	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.18.19 15.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	11.18.19 15.16	
o-Terphenyl	84-15-1	115	%	70-135	11.18.19 15.16	

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-001	Date Collected:	11.14.19 11.41	Sample Depth:	4
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.18.19 14.30	Basis:	Wet Weight
Seq Number:	3107858			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.18.19 18.32	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.18.19 18.32	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.18.19 18.32	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.18.19 18.32	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.18.19 18.32	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.18.19 18.32	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.18.19 18.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	11.18.19 18.32	
1,4-Difluorobenzene	540-36-3	109	%	70-130	11.18.19 18.32	

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-002	Date Collected:	11.14.19 12.48	Sample Depth:	9

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.19.19 08.30	Basis:	Wet Weight
Seq Number:	3108000			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14000**	99.8	mg/kg	11.19.19 10.06		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.18.19 10.00	Basis:	Wet Weight
Seq Number:	3107930			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.18.19 15.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.18.19 15.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.18.19 15.37	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.18.19 15.37	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.18.19 15.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	11.18.19 15.37	
o-Terphenyl	84-15-1	102	%	70-135	11.18.19 15.37	

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-002	Date Collected:	11.14.19 12.48	Sample Depth:	9
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.18.19 14.30	Basis:	Wet Weight
Seq Number:	3107858			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.18.19 18.53	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.18.19 18.53	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.18.19 18.53	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.18.19 18.53	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.18.19 18.53	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.18.19 18.53	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.18.19 18.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	11.18.19 18.53	
1,4-Difluorobenzene	540-36-3	112	%	70-130	11.18.19 18.53	

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH0B**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-003	Date Collected:	11.14.19 13.48	Sample Depth:	11

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.19.19 08.30	Basis:	Wet Weight
Seq Number:	3108000			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10600**	49.5	mg/kg	11.19.19 10.13		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.18.19 10.00	Basis:	Wet Weight
Seq Number:	3107930			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.18.19 15.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.18.19 15.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.18.19 15.58	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.18.19 15.58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.18.19 15.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.18.19 15.58	
o-Terphenyl	84-15-1	113	%	70-135	11.18.19 15.58	

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH0B**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-003	Date Collected:	11.14.19 13.48	Sample Depth:	11
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.18.19 14.30	Basis:	Wet Weight
Seq Number:	3107858			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.18.19 19.13	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.18.19 19.13	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.18.19 19.13	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	11.18.19 19.13	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.18.19 19.13	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.18.19 19.13	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.18.19 19.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	112	%	70-130	11.18.19 19.13	
4-Bromofluorobenzene	460-00-4	104	%	70-130	11.18.19 19.13	

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-004	Date Collected:	11.14.19 14.25	Sample Depth:	2

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.19.19 08.30	Basis:	Wet Weight
Seq Number:	3108000			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4940**	24.8	mg/kg	11.19.19 10.20		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.18.19 10.00	Basis:	Wet Weight
Seq Number:	3107930			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.18.19 16.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.18.19 16.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.18.19 16.18	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.18.19 16.18	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.18.19 16.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	11.18.19 16.18	
o-Terphenyl	84-15-1	113	%	70-135	11.18.19 16.18	

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-004	Date Collected:	11.14.19 14.25	Sample Depth:	2
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.18.19 14.30	Basis:	Wet Weight
Seq Number:	3107858			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.18.19 19.33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.18.19 19.33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.18.19 19.33	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.18.19 19.33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.18.19 19.33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.18.19 19.33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.18.19 19.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	11.18.19 19.33	
4-Bromofluorobenzene	460-00-4	103	%	70-130	11.18.19 19.33	

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-005	Date Collected:	11.14.19 14.44	Sample Depth:	5

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.19.19 08.30	Basis:	Wet Weight
Seq Number:	3108000			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13200**	101	mg/kg	11.19.19 10.26		20

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.18.19 10.00	Basis:	Wet Weight
Seq Number:	3107930			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.18.19 16.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.18.19 16.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.18.19 16.39	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.18.19 16.39	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.18.19 16.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	11.18.19 16.39	
o-Terphenyl	84-15-1	108	%	70-135	11.18.19 16.39	

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-005	Date Collected:	11.14.19 14.44	Sample Depth:	5
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.18.19 14.30	Basis:	Wet Weight
Seq Number:	3107858			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.18.19 19.53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.18.19 19.53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.18.19 19.53	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.18.19 19.53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.18.19 19.53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.18.19 19.53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.18.19 19.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.18.19 19.53	
1,4-Difluorobenzene	540-36-3	110	%	70-130	11.18.19 19.53	

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH02B**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-006	Date Collected:	11.14.19 15.03	Sample Depth:	7

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.19.19 08.30	Basis:	Wet Weight
Seq Number:	3108000			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7330**	49.6	mg/kg	11.19.19 10.33		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.18.19 10.00	Basis:	Wet Weight
Seq Number:	3107930			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.18.19 17.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.18.19 17.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.18.19 17.21	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.18.19 17.21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.18.19 17.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.18.19 17.21	
o-Terphenyl	84-15-1	106	%	70-135	11.18.19 17.21	

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH02B**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-006	Date Collected:	11.14.19 15.03	Sample Depth:	7
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.18.19 14.30	Basis:	Wet Weight
Seq Number:	3107858			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.18.19 20.13	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.18.19 20.13	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.18.19 20.13	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.18.19 20.13	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.18.19 20.13	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.18.19 20.13	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.18.19 20.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.18.19 20.13	
1,4-Difluorobenzene	540-36-3	110	%	70-130	11.18.19 20.13	

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-007	Date Collected:	11.14.19 15.50	Sample Depth:	2

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.19.19 08.30	Basis:	Wet Weight
Seq Number:	3108000			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**214**	5.03	mg/kg	11.19.19 10.59		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.18.19 10.00	Basis:	Wet Weight
Seq Number:	3107930			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.18.19 17.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.18.19 17.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.18.19 17.42	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.18.19 17.42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.18.19 17.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	11.18.19 17.42	
o-Terphenyl	84-15-1	109	%	70-135	11.18.19 17.42	

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-007	Date Collected:	11.14.19 15.50	Sample Depth:	2
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.18.19 14.30	Basis:	Wet Weight
Seq Number:	3107858			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.18.19 20.33	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.18.19 20.33	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.18.19 20.33	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.18.19 20.33	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.18.19 20.33	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.18.19 20.33	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.18.19 20.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	11.18.19 20.33	
4-Bromofluorobenzene	460-00-4	112	%	70-130	11.18.19 20.33	

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-008	Date Collected:	11.14.19 15.59	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	11.19.19 19.50	Basis:	Wet Weight
Seq Number:	3108119			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**280**	50.0	mg/kg	11.20.19 12.19		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.18.19 10.00	Basis:	Wet Weight
Seq Number:	3107930			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.18.19 18.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.18.19 18.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.18.19 18.03	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.18.19 18.03	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.18.19 18.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	11.18.19 18.03	
o-Terphenyl	84-15-1	109	%	70-135	11.18.19 18.03	

Certificate of Analytical Results 643344

LT Environmental, Inc., Arvada, CO

PLU CVX JV RR 003H (System Riser)

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	11.15.19 10.10
Lab Sample Id:	643344-008	Date Collected:	11.14.19 15.59	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.18.19 14.30	Basis:	Wet Weight
Seq Number:	3107858			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.18.19 20.53	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.18.19 20.53	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.18.19 20.53	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.18.19 20.53	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.18.19 20.53	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.18.19 20.53	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.18.19 20.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	11.18.19 20.53	
1,4-Difluorobenzene	540-36-3	108	%	70-130	11.18.19 20.53	

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

Released to Imaging: 9/15/2021 10:29:53 AM

QC Summary 643344

LT Environmental, Inc.

PLU CVX JV RR 003H (System Riser)

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3108000 — Matrix: Solid — Date Prep: 11.19.19
MB Sample Id: 7690623-1-BLK — LCS Sample Id: 7690623-1-BKS — LCSD Sample Id: 7690623-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	247	99	247	99	90-110	0	20	mg/kg	11.19.19 08:53	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3108119 — Matrix: Solid — Date Prep: 11.19.19
MB Sample Id: 7690710-1-BLK — LCS Sample Id: 7690710-1-BKS — LCSD Sample Id: 7690710-1-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	249	100	251	100	90-110	1	20	mg/kg	11.20.19 07:30	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3108000 — Matrix: Soil — Date Prep: 11.19.19
Parent Sample Id: 643322-001 — MS Sample Id: 643322-001 S — MSD Sample Id: 643322-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.28	252	257	101	255	101	90-110	1	20	mg/kg	11.19.19 09:13	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3108000 — Matrix: Soil — Date Prep: 11.19.19
Parent Sample Id: 643322-002 — MS Sample Id: 643322-002 S — MSD Sample Id: 643322-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.84	250	254	98	250	96	90-110	2	20	mg/kg	11.19.19 10:46	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3108119 — Matrix: Soil — Date Prep: 11.19.19
Parent Sample Id: 643714-017 — MS Sample Id: 643714-017 S — MSD Sample Id: 643714-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5.99	248	282	111	268	106	90-110	5	20	mg/kg	11.20.19 07:58	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

Final 1.000

QC Summary 643344

LT Environmental, Inc.

PLU CVX JV RR 003H (System Riser)

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3108119 Matrix: Soil Date Prep: 11.19.19
Parent Sample Id: 643714-027 MS Sample Id: 643714-027 S MSD Sample Id: 643714-027 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3.34	248	257	102	263	105	90-110	2	20	mg/kg	11.20.19 10:07	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3107930 Matrix: Solid Date Prep: 11.18.19
MB Sample Id: 7690515-1-BLK LCS Sample Id: 7690515-1-BKS LCSD Sample Id: 7690515-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1030	103	1050	105	70-135	2	20	mg/kg	11.18.19 12:08	
Diesel Range Organics (DRO)	<50.0	1000	994	99	1040	104	70-135	5	20	mg/kg	11.18.19 12:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		103		106		70-135	%	11.18.19 12:08
o-Terphenyl	101		84		99		70-135	%	11.18.19 12:08

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3107930 Matrix: Solid Date Prep: 11.18.19
MB Sample Id: 7690515-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.18.19 11:47	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3107930 Matrix: Soil Date Prep: 11.18.19
Parent Sample Id: 643322-001 MS Sample Id: 643322-001 S MSD Sample Id: 643322-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	1110	111	1130	113	70-135	2	20	mg/kg	11.18.19 13:11	
Diesel Range Organics (DRO)	40.0	999	1130	109	1110	107	70-135	2	20	mg/kg	11.18.19 13:11	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		116		70-135	%	11.18.19 13:11
o-Terphenyl	104		104		70-135	%	11.18.19 13:11

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 643344

LT Environmental, Inc.

PLU CVX JV RR 003H (System Riser)

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

Seq Number: 3107858 Matrix: Solid Date Prep: 11.18.19

MB Sample Id: 7690565-1-BLK LCS Sample Id: 7690565-1-BKS LCSD Sample Id: 7690565-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.110	110	0.111	111	70-130	1	35	mg/kg	11.18.19 16:33	
Toluene	<0.00200	0.100	0.104	104	0.108	108	70-130	4	35	mg/kg	11.18.19 16:33	
Ethylbenzene	<0.00200	0.100	0.108	108	0.113	113	70-130	5	35	mg/kg	11.18.19 16:33	
m,p-Xylenes	<0.00400	0.200	0.221	111	0.234	117	70-130	6	35	mg/kg	11.18.19 16:33	
o-Xylene	<0.00200	0.100	0.109	109	0.116	116	70-130	6	35	mg/kg	11.18.19 16:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		111		111		70-130	%	11.18.19 16:33
4-Bromofluorobenzene	96		107		114		70-130	%	11.18.19 16:33

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

Seq Number: 3107858 Matrix: Soil Date Prep: 11.18.19

Parent Sample Id: 643322-001 MS Sample Id: 643322-001 S MSD Sample Id: 643322-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.00197	2	0.107	107	70-130	193	35	mg/kg	11.18.19 17:13	XF
Toluene	<0.00198	0.0992	0.00232	2	0.104	104	70-130	191	35	mg/kg	11.18.19 17:13	XF
Ethylbenzene	<0.00198	0.0992	0.00257	3	0.0990	99	70-130	190	35	mg/kg	11.18.19 17:13	XF
m,p-Xylenes	0.00298	0.198	0.00545	1	0.203	100	70-130	190	35	mg/kg	11.18.19 17:13	XF
o-Xylene	<0.00198	0.0992	0.00344	3	0.100	100	70-130	187	35	mg/kg	11.18.19 17:13	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		114		70-130	%	11.18.19 17:13
4-Bromofluorobenzene	117		110		70-130	%	11.18.19 17:13

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	

Page 127 of 132

Chain of Custody

Work Order No: 643344

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

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849 Email:	ldelval@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 RR 003H (System riser)	Turn Around	
Project Number:	012918078	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	~~Benjamin Belill~~ Luis Del Val	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	1.0	Thermometer ID		
Received Intact:	Yes No	T-NM-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:	8	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
PH01	S	11/19/2019	1141	4'	1	X	X	X	
PH01A			1248	9'					
PH01B			1348	11'					
PH02			1426	2'					
PH02A			1444	5'					
PH02B			1503	7'					
PH03			~~1534~~ 1550	2'					Time: 1550
PH03A			1559	4'					

ANALYSIS REQUEST

Work Order Notes

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Luis Del Val		11/15/19 10:10	2		
			4		
			6		

Received by OCD: 4/9/2020 2:22:27 PM
Final 1.000
Page 27 of 31
Released to Imaging: 9/15/2021 10:29:53 AM

Inter-Office Shipment

IOS Number **52359**

Date/Time: 11/15/19 12:55
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 777001730763

Please send report to: Jessica Kramer
Address: 1089 N Canal Street
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
643344-001	S	PH01	11/14/19 11:41	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/28/19	JKR	GRO-DRO PHCC10C28 PI	
643344-001	S	PH01	11/14/19 11:41	E300_CL	Chloride by EPA 300	11/21/19	05/12/20	JKR	CL	
643344-001	S	PH01	11/14/19 11:41	SW8021B	BTEX by EPA 8021B	11/21/19	11/28/19	JKR	BZ BZME EBZ XYLENES	
643344-002	S	PH01A	11/14/19 12:48	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/28/19	JKR	GRO-DRO PHCC10C28 PI	
643344-002	S	PH01A	11/14/19 12:48	SW8021B	BTEX by EPA 8021B	11/21/19	11/28/19	JKR	BZ BZME EBZ XYLENES	
643344-002	S	PH01A	11/14/19 12:48	E300_CL	Chloride by EPA 300	11/21/19	05/12/20	JKR	CL	
643344-003	S	PH0B	11/14/19 13:48	SW8021B	BTEX by EPA 8021B	11/21/19	11/28/19	JKR	BZ BZME EBZ XYLENES	
643344-003	S	PH0B	11/14/19 13:48	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/28/19	JKR	GRO-DRO PHCC10C28 PI	
643344-003	S	PH0B	11/14/19 13:48	E300_CL	Chloride by EPA 300	11/21/19	05/12/20	JKR	CL	
643344-004	S	PH02	11/14/19 14:25	SW8021B	BTEX by EPA 8021B	11/21/19	11/28/19	JKR	BZ BZME EBZ XYLENES	
643344-004	S	PH02	11/14/19 14:25	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/28/19	JKR	GRO-DRO PHCC10C28 PI	
643344-004	S	PH02	11/14/19 14:25	E300_CL	Chloride by EPA 300	11/21/19	05/12/20	JKR	CL	
643344-005	S	PH02A	11/14/19 14:44	SW8021B	BTEX by EPA 8021B	11/21/19	11/28/19	JKR	BZ BZME EBZ XYLENES	
643344-005	S	PH02A	11/14/19 14:44	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/28/19	JKR	GRO-DRO PHCC10C28 PI	
643344-005	S	PH02A	11/14/19 14:44	E300_CL	Chloride by EPA 300	11/21/19	05/12/20	JKR	CL	
643344-006	S	PH02B	11/14/19 15:03	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/28/19	JKR	GRO-DRO PHCC10C28 PI	
643344-006	S	PH02B	11/14/19 15:03	SW8021B	BTEX by EPA 8021B	11/21/19	11/28/19	JKR	BZ BZME EBZ XYLENES	
643344-006	S	PH02B	11/14/19 15:03	E300_CL	Chloride by EPA 300	11/21/19	05/12/20	JKR	CL	
643344-007	S	PH03	11/14/19 15:50	E300_CL	Chloride by EPA 300	11/21/19	05/12/20	JKR	CL	
643344-007	S	PH03	11/14/19 15:50	SW8021B	BTEX by EPA 8021B	11/21/19	11/28/19	JKR	BZ BZME EBZ XYLENES	
643344-007	S	PH03	11/14/19 15:50	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/28/19	JKR	GRO-DRO PHCC10C28 PI	
643344-008	S	PH03A	11/14/19 15:59	SW8021B	BTEX by EPA 8021B	11/21/19	11/28/19	JKR	BZ BZME EBZ XYLENES	
643344-008	S	PH03A	11/14/19 15:59	E300_CL	Chloride by EPA 300	11/21/19	05/12/20	JKR	CL	
643344-008	S	PH03A	11/14/19 15:59	SW8015MOD_NM	TPH by SW8015 Mod	11/21/19	11/28/19	JKR	GRO-DRO PHCC10C28 PI	

Inter-Office Shipment

IOS Number **52359**

Date/Time: 11/15/19 12:55
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 777001730763

Please send report to: Jessica Kramer
Address: 1089 N Canal Street
E-Mail: jessica.kramer@xenco.com

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 11/15/2019

Received By: Brianna Teel

Date Received: 11/18/2019 07:17

Cooler Temperature: 0.3

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 52359

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sent By: Elizabeth McClellan **Date Sent:** 11/15/2019 12:55 PM

Received By: Brianna Teel **Date Received:** 11/18/2019 07:17 AM

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

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

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

Checklist reviewed by: Brianna Teel Date: 11/18/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/15/2019 10:10:00 AM

Work Order #: 643344

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

Temperature Measuring device used : T-NM-007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 11/15/2019

Checklist reviewed by: Jessica Kramer Date: 11/18/2019

Jessica Kramer

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 4917
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bbillings	Incident closed, but Section 13 of Rule 29 at a later date.	9/15/2021