NM OIL CONSERVATION
ARTESIA DISTRICT
JUL 29 2015
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

nAB1521535958 — 2RP-3180

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 PC 001H (AKA PLU PC 17)	Facility Type: Exploration and Production

Surface Owner:Federal	Mineral Owner:	API No. 3001536635

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/*South Line*	Feet from the	*East*/West Line	County
P	17	25S	30E	350		350		Eddy

Latitude: 32.123950 **Longitude:** 103.895943

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 39 barrels	Volume Recovered: 1 barrel
Source of Release: Fuse weld on 4 inch poly failed	Date and Hour of Occurrence: 7-27-15 @ 10:00am	Date and Hour of Discovery: 7-27-15 @ 10:19am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher via email	
By Whom? Bradley Blevins	Date and Hour 7-27-15 @ 2:00pm	
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 fuse weld on 4 inch poly PW transfer line failed, releasing 39 barrels of produced water to the ground surface. A vacuum truck was called to the location and was able to recover 1 barrel of the fluid.

Describe Area Affected and Cleanup Action Taken.*
The release occurred on the north side of the battery in sandy soil conditions, a vacuum truck was used to recover 1 barrel of 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

Printed Name: Bradley Blevins

Title: Assistant Remediation Foreman

E-mail Address: bblevins@basspet.com

Date: 7-29-15 Phone: 432-214-3704

OIL CONSERVATION DIVISION

Signed By Mike Bratcher

Approved by Environmental Specialist:

Approval Date: 8/3/15 Expiration Date: N/A

Conditions of Approval: Attached ☐

Remediation per O.C.D. Rules & Guidelines
SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 9/3/15

* Attach Additional Sheets If Necessary

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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	nAB1521535958
District RP	2RP-3180
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-3180
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude N 32.123950 Longitude W 103.895943
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: PLU CVX JV PC 001H (AKA PLU PC 17)	Site Type: Production Well Facility
Date Release Discovered: 7/27/2015	API# *(if applicable):* 30-015-36635

Unit Letter	Section	Township	Range	County
P	17	25S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls):	Volume Recovered (bbls):
☒ Produced Water	Volume Released (bbls): 39	Volume Recovered (bbls): 1
	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 fuse weld on a 4-inch poly produced water transfer line failed, releasing 39 barrels of produced water to the ground surface on the north side of the battery.

State of New Mexico
Oil Conservation Division

Incident ID	nAB1521535958
District RP	2RP-3180
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? Greater than 25 bbls were released. No watercourse was reached.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Immediate notice was given to Mike Bratcher (NMOCD) via email on July 27, 2015 at 2:00pm

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: 10/11/2019

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAB1521535958
District RP	2RP-3180
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	nAB1521535958
District RP	2RP-3180
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: Garrett Green Title: SSHE Coordinator

Signature: Date: 09/22/2023

email: garrett.green@exxonmobil.com Telephone: 575-200-0729

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAB1521535958
District RP	2RP-3180
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: Garrett Green Title: SSHE Coordinator

Signature:  Date: 09/22/2023

email: Garrett.green@exxonmobil.com Telephone: 575-200-0729

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: Ashley Maxwell Date: 10/06/2023

Printed Name: Ashley Maxwell Title: Environmental Specialist

ENSOLUM

September 22, 2023

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Closure Request Addendum
PLU CVX JV PC 001H
Incident Numbers nAB1521535958 and nAB1621456328
Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following addendum to the original *Closure Request* dated October 9, 2019. This addendum provides an update to the depth to groundwater determination activities at the PLU CVX JV PC 001H (Site) in response to the New Mexico Oil Conservation Division (NMOCD) denial of the October 9, 2019, *Closure Request*. In the denial, NMOCD indicated that the depth to groundwater assessment was not sufficient. Based on the additional depth to groundwater determination activities described below, XTO is submitting this *Closure Request Addendum* and requesting closure for Incident Numbers nAB1521535958 and nAB1621456328

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 17, Township 25 South, Range 30 East, in Eddy County, New Mexico (32.123950°, -103.895943°) and is associated with oil and gas exploration and production operations on Federal land managed by the Bureau of Land Management (BLM).

On July 27, 2015, a fuse weld on a four-inch poly produced water transfer line failed, releasing approximately 39 barrels (bbls) of produced water to the ground surface on the north side of the battery. A vacuum truck recovered approximately 1 bbl of produced water. The former operator reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 (Form C-141) on July 29, 2015. The release was assigned Remediation Permit (RP) Number 2RP-3180 and Incident Number nAB1521535958.

On July 23, 2016, a poly flow line was located too close to the flare, and heat from the flare caused the line to rupture. Approximately 9.5 bbls of produced water were released onto the well pad and surrounding area. The line was repaired and relocated away from the flare. A response crew was dispatched to the location to excavate the release area. The former operator reported the release to the NMOCD on a Form C-141 on July 24, 2016. The release was assigned RP Number 2RP-3813 and Incident Number nAB1621456328.

The releases were included in the Compliance Agreement for Remediation for Historical Releases (Compliance Agreement) between XTO and the NMOCD effective November 13, 2018. The purpose of the Compliance Agreement was to ensure that 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.

BACKGROUND

The October 9, 2019, *Closure Request* detailed site characterization according to Table I, Closure Criteria for Soils Impacted by a Release, of 19.15.29 NMAC. Results from the characterization desktop review are presented on page 3 of each Form C-141, Site Assessment/Characterization. Potential Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table I Closure Criteria (Closure Criteria) were applied:

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

During June and July 2019, delineation and excavation activities were conducted at the Site to address the impacted soil resulting from the two historical produced water releases. Closure was requested on October 9, 2019, based on laboratory analytical results for the excavation and delineation soil samples indicating benzene, BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria. Additional details regarding the delineation and excavation activities can be referenced in the October 9, 2019, *Closure Request*.

On March 22, 2023, NMOCD denied the *Closure Request* for Incident Numbers nAB1521535958 and nAB1621456328 for following reason:

- *The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29 NMAC in lieu of drilling to determine the depth to groundwater.*

In response to the denial, XTO submitted a *Remediation Work Plan* (*Work Plan*) to the NMOCD on June 29, 2023. The *Work Plan* proposed to install a soil boring within 0.5 miles of the Site to investigate depth to groundwater and confirm the Closure Criteria applied to the Site. The *Work Plan* was approved by the NMOCD on June 30, 2023.

ADDITIONAL DEPTH TO GROUNDWATER DETERMINATION

As outlined in the June 29, 2023 *Work Plan*, XTO proceeded with the installation of a soil boring for determination of groundwater depth and confirmation of the Site Closure Criteria. During August 2023, a borehole, permitted as New Mexico Office of the State Engineer (NMOSE) well C-04758, was advanced to a depth of 110 feet bgs via air rotary drill rig. The borehole was located approximately 400 feet southwest of the Site and is depicted on Figure 1. A field geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling of the borehole. 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 is greater than 110 feet bgs.

The borehole was properly abandoned using hydrated bentonite chips. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

Based on confirmed depth to groundwater greater than 100 feet bgs within 0.5 miles of the Site, the Table I Closure Criteria identified in the original *Closure Request* are applicable and appropriate for protection of groundwater at this Site.

CLOSURE REQUEST

Site assessment and excavation activities were completed at the Site to address the impacted soil resulting from two historical produced water releases. Based on depth to groundwater greater than 100 feet bgs within 0.5 miles of the Site as presented in this addendum and laboratory analytical results for the final excavation and delineation soil samples compliant with the confirmed Site Closure Criteria, as documented in the October 9, 2019, *Closure Request,* XTO respectfully requests no further action for Incident Numbers nAB1521535958 and nAB1621456328. The October 9, 2019, *Closure Request* is included as Appendix B.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC

Aimee Cole
Senior Managing Scientist

Ashley Ager, P.G.
Program Director

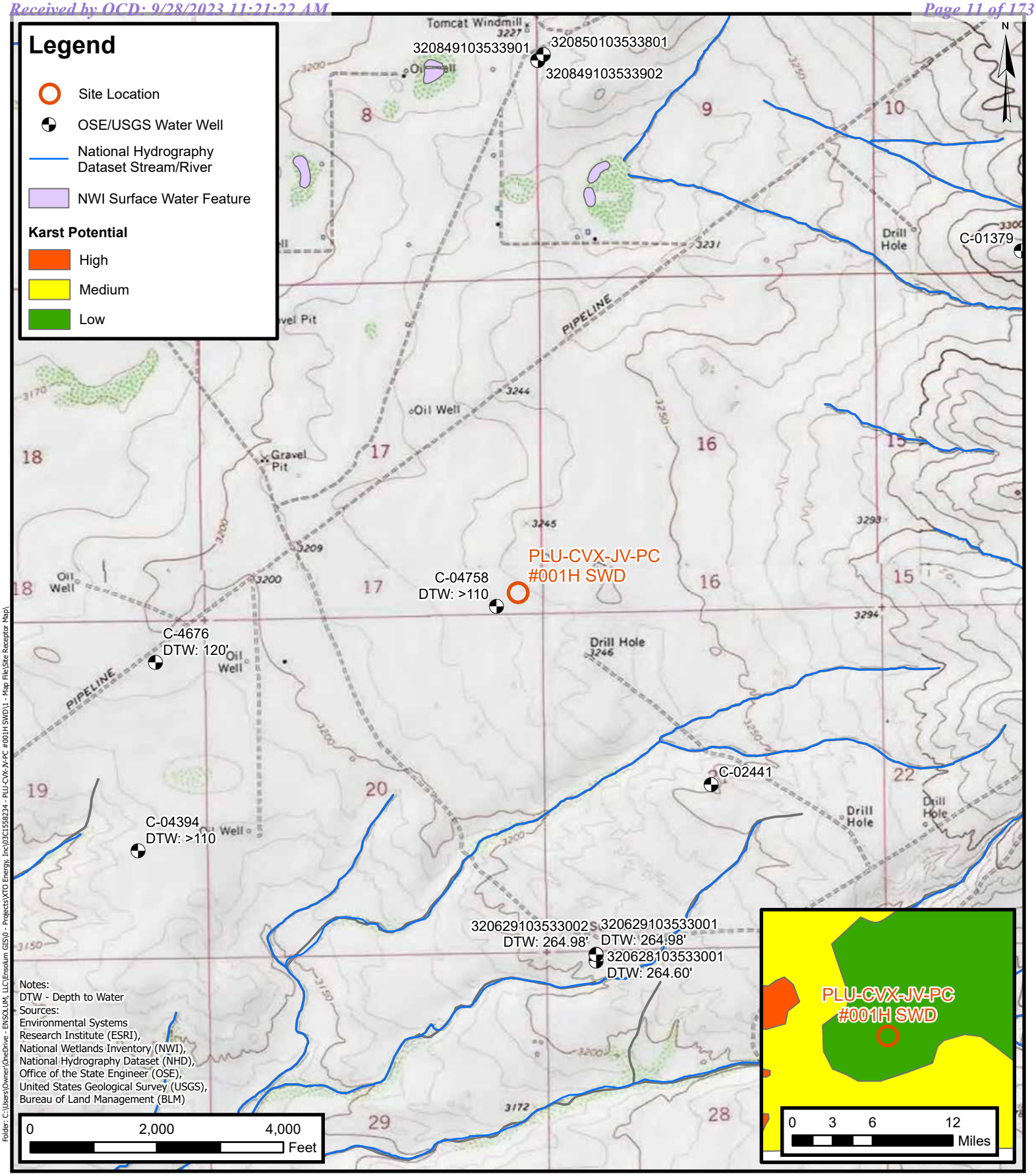
cc: Garrett Green, XTO
Shelby Pennington, XTO
Bureau of Land Management

Appendices:

Figure 1	Site Receptor Map
Appendix A	Referenced Well Records
Appendix B	October 9, 2019, Closure Request

ENSOLUM

FIGURES



Folder: C:\Users\Owner\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\XTO Energy, Inc\03C1558234 - PLU-CVX-JV-PC #001H SWD\1 - Map File\Site Receptor Map\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

XTO Energy, Inc.
PLU CVX-JV-PC #001H
Incident Number: nAB1521535958 and nAB1621456328
Unit P, Section 17, Township 25 South, Range 30 East
Eddy County, New Mexico

FIGURE 1

ENSOLUM

APPENDIX A

Referenced Well Records

ENSOLUM

	Sample Name: BH01/C-04758	Date: 8/08/2023
	Site Name: PLU PC 17 BATTERY	
	Incident Number:	
	Job Number:	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: M. O'Dell/S. Welvang	Method: Air Rotary Rig
Coordinates: 32.123284, -103.897084	Hole Diameter: 5"	Total Depth: 110'

Comments: No field screening was conducted.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
						10	CCHE	0-10'. Caliche w/sand. Tan to light brown, very fine to fine grained, well graded, subrounded to subangular grains, dry.
						20	SW	10-20'. Sand. Reddish brown, very fine to fine grained, subrounded to subangular grains, well graded, trace CCHE, dry.
						30	SW	20-30'. Sand w/CCHE mixture. Very fine to fine grained, CCHE medium to coarse grains, sand reddish brown, tan to light brown CCHE Well graded.
						40	SC	30-50'. Clayey sand w/ gravel. Brown, very fine to fine grained, gravel small grained, trace CCHE, dry.
						50		
						60	SP	50-80'. Sand, brown (trace red), very fine to fine grained, poorly graded, subrounded to subangular, dry.
						70		
						80		80-90'. Sand. Yellowish tan, very fine to fine grained, poorly graded, trace silty, trace orange sand, trace CCHE, dry.
						90		90'-110'. Sand. Brownish red, very fine to fine grained, poorly graded, subrounded to subangular, dry.
						100		
						110		110': stopped drilling and set casing to 110'.

TD at 110' bgs.

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 749154
File Nbr: C 04758

Jul. 24, 2023

BENJAMIN BELILL
ENSOLUM, LLC
3122 NATIONAL PARKS HIGHWAY
CARLSBAD, NM 88220

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.

* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.

* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.

* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,

Vanessa Clements
(575)622-6521

Enclosure

explore

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 749154
File Nbr: C 04758

Jul. 24, 2023

GARRETT GREEN
XTO ENERGY, INC.
3401 E GREENE ST
CARLSBAD, NM 88220

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.

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* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,

Vanessa Clements
(575)622-6521

Enclosure

explore

File No. C- 4758

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: http://www.ose.state.nm.us/

Purpose:	☐ Pollution Control And/Or Recovery	☐ Ground Source Heat Pump
☐ Exploratory Well (Pump test)	☐ Construction Site/Public Works Dewatering	☐ Other(Describe):
☒ Monitoring Well	☐ Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

☒ Temporary Request - Requested Start Date: 7/17/2023 Requested End Date: TBD

Plugging Plan of Operations Submitted? ☒ Yes ☐ No

1. APPLICANT(S)

Name: XTO Energy, Inc	Name: Ensolum, LLC
Contact or Agent: Garrett Green — check here if Agent ☐	Contact or Agent: Benjamin Belill — check here if Agent ☒
Mailing Address: 3401 E. Greene Street	Mailing Address: 3122 National Parks Highway
City: Carlsbad	City: Carlsbad
State: New Mexico Zip Code: 88220	State: New Mexico Zip Code: 88220
Phone: 575-200-0729 ☐ Home ☒ Cell Phone (Work):	Phone: 989-854-0852 ☐ Home ☒ Cell Phone (Work):
E-mail (optional): Garrett.Green@ExxonMobil.com	E-mail (optional): bbelill@ensolum.com

OSE DII JUL 7 2023 AM 11:30

FOR OSE INTERNAL USE Application for Permit, Form WR-07, Rev 11/17/16

File No.: C-4758	Trn. No.: 749154	Receipt No.: 245957
Trans Description (optional): MON		
Sub-Basin: CUB	PCW/LOG Due Date: 7-24-24	

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

■ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (*Quarters or Halves , Section, Township, Range*) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
C-4758 Pad 1 BH01	-103.896478	32.123445	Unit P, S17, T25S, R30E, Eddy County

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ☐ Yes ■ No **If yes, how many**_____

Other description relating well to common landmarks, streets, or other:
Located on active well pad facility at the the Poker Lake Unit CVX JV RR #010H (32.123445,-103.896478).

Well is on land owned by: Federal - Bureau of Land Management

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? ☐ Yes ■ No
If yes, how many_____

Approximate depth of well (feet): 110	Outside diameter of well casing (inches): 2
Driller Name: Scarborough Drilling	Driller License Number: WD-1188

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

One soil boring to be advanced at the site to assess subsurface soil and regional groundwater depth. Temporary 2-inch inside diameter PVC well screen will be placed in open borehole to determine depth to water at the site. The borehole will be abandoned after 72 hours from the time the borehole is completed. The borehole location is depicted on the attached figure.

OSE OIL JUL 7 2023 AM 11:30

FOR OSE INTERNAL USE — Application for Permit, Form WR-07

File No.: C-4758	Trn No.: 749154

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory: ☐ Include a description of any proposed pump test, if applicable.	**Pollution Control and/or Recovery:** ☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for the pollution control or recovery operation. ☐ The estimated maximum period of time for completion of the operation. ☐ The annual diversion amount. ☐ The annual consumptive use amount. ☐ The maximum amount of water to be diverted and injected for the duration of the operation. ☐ The method and place of discharge. ☐ The method of measurement of water produced and discharged. ☐ The source of water to be injected. ☐ The method of measurement of water injected. ☐ The characteristics of the aquifer. ☐ The method of determining the resulting annual consumptive use of water and depletion from any related stream system. ☐ Proof of any permit required from the New Mexico Environment Department. ☐ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	**Construction De-Watering:** ☐ Include a description of the proposed dewatering operation, ☐ The estimated duration of the operation, ☐ The maximum amount of water to be diverted, ☐ A description of the need for the dewatering operation, and, ☐ A description of how the diverted water will be disposed of.	**Mine De-Watering:** ☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for mine dewatering. ☐ The estimated maximum period of time for completion of the operation. ☐ The source(s) of the water to be diverted. ☐ The geohydrologic characteristics of the aquifer(s). ☐ The maximum amount of water to be diverted per annum. ☐ The maximum amount of water to be diverted for the duration of the operation. ☐ The quality of the water. ☐ The method of measurement of water diverted. ☐ The recharge of water to the aquifer. ☐ Description of the estimated area of hydrologic effect of the project. ☐ The method and place of discharge. ☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. ☐ A description of the methods employed to estimate effects on surface water rights and underground water rights. ☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring: ■ Include the reason for the monitoring well, and, ■ The duration of the planned monitoring.		**Ground Source Heat Pump:** ☐ Include a description of the geothermal heat exchange project, ☐ The number of boreholes for the completed project and required depths. ☐ The time frame for constructing the geothermal heat exchange project, and, ☐ The duration of the project. ☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Benjamin Belill
Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Benjamin Belill Digitally signed by Benjamin Belill Date: 2023.07.06 10:37:13 -04'00'
Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☑ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 24th day of July 20 23, for the State Engineer.
OSE DIT JUL 7 2023 AM 11:30

Mike A. Hamman, P.E, State Engineer

By: K. Parekh (Signature) Kashyap Parekh (Print)

Title: Water Resources Manager I (Print)

FOR OSE INTERNAL USE Application for Permit, Form WR-07

File No.: C-4758	Trn No.: 749154

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

17-16 Construction of a water well by anyone without a valid New Mexico Well Driller License is illegal, and the landowner shall bear the cost of plugging the well by a licensed New Mexico well driller. This does not apply to driven wells, the casing of which does not exceed two and three-eighths inches outside diameter.

17-1A Depth of the well shall not exceed the thickness of the valley fill.

17-4 No water shall be appropriated and beneficially used under this permit.

17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

Trn Desc: C 04758 POD1

File Number: C 04758
Trn Number: 749154

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.

17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.
The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.

17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.

17-Q The State Engineer retains jurisdiction over this permit.

17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

Trn Desc: C 04758 POD1 File Number: C 04758
Trn Number: 749154

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

LOG The Point of Diversion C 04758 POD1 must be completed and the Well Log filed on or before 07/23/2024.

IT IS THE PERMITTEE'S RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

ACTION OF STATE ENGINEER

Notice of Intention Rcvd: Date Rcvd. Corrected:
Formal Application Rcvd: 07/07/2023 Pub. of Notice Ordered:
Date Returned - Correction: Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 24 day of Jul A.D., 2023

Mike A. Hamman, P.E., State Engineer

By: K-Parekh
KASHYAP PAREKH

Trn Desc: C 04758 POD1

File Number: C 04758
Trn Number: 749154

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
ROSWELL

Mike A. Hamman, P.E.
State Engineer

DISTRICT II
1900 West Second St.
Roswell, New Mexico 88201
Phone: (575) 622-6521
Fax: (575) 623-8559

July 10, 2023

XTO Energy Inc.
3401 E. Greene Street
Carlsbad, NM 88220

RE: Well Plugging Plan of Operations for well no. C-4758-POD1

Greetings:

Enclosed is your copy of the Well Plugging Plan of Operations for the above referenced well subject to the attached Conditions of Approval. The proposed method of operation is found to be acceptable and in accordance with the Rules and Regulations Governing Well Driller Licensing; Construction, Repair and Plugging of Wells 19.27.4 NMAC adopted June 30, 2017 by the State Engineer. subject to the attached Conditions of Approval.

Well Plugging Plan of Operations form (WD-08) has been updated. Current form can be found on the OSE website at the following link https://www.ose.state.nm.us/Statewide/wdForms.php.

Within 30 days after the well is plugged, the well driller is required to file a complete plugging record with the OSE and the permit holder.

Sincerely,

K Parekh

Kashyap Parekh
Water Resources Manager I

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
ROSWELL
1900 West Second St.
Roswell, New Mexico 88201
Phone: (575) 622-6521
Fax: (575) 623- 8559

Applicant has identified wells, listed below, to be plugged. Scarborough Drilling Inc. (WD-1188) will perform the plugging.

Permittee: XTO Energy Inc.
NMOSE Permit Number: C-4758-POD1

NMOSE File	Casing diameter (inches)	Well depth (feet bgl)	Approximate static water level (feet bgl)	Latitude	Longitude
C-4758-POD1	8.0 (Soil Boring)	110	Unknown	32° 7' 24.40"	103° 53' 47.32"

Specific Plugging Conditions of Approval for Well located in Eddy County, New Mexico.

1. Water well drilling and well drilling activities, including well plugging, are regulated under 19.27.4 NMAC, which requires any person engaged in the business of well drilling within New Mexico to obtain a Well Driller License issued by the New Mexico Office of the State Engineer (NMOSE). Therefore, the firm of a New Mexico licensed Well Driller shall perform the well plugging.

2. Ground Water encountered: The total Theoretical volume of sealant required for abandonment of soil boring well is approximately 287.0 gallons. Total minimum volume of necessary sealant shall be calculated upon sounding the actual pluggable depth of well, which is estimated at 110 feet.

3. Dry Hole: The total Theoretical volume of sealant required for abandonment of soil boring well is approximately 26.0 gallons. Total minimum volume of necessary sealant shall be calculated upon sounding the actual pluggable depth of well, which is estimated at 10 feet.

4. Ground Water encountered: Type I/II Portland cement mixed with 5.2 to 6.0 gallons of fresh water per 94-lb sack of cement is approved for the plugging the well.

5. Dry Hole: (a) Drill cuttings up to ten feet of land surface. (b) 10 feet to 0 feet – Hydrated bentonite. The bentonite shall be hydrated separately with its required increments of water prior to being mixed into the cement slurry.

6. Sealant shall be placed by pumping through a tremie pipe extended to near well bottom and kept below top of the slurry column as the well is plugged from bottom-upwards in a manner that displaces

the standing water column upwards from below. Tremie pipe may be pulled as necessary to retain minimal submergence in the advancing column of sealant.

7. Should cement "shrinks-back" occur in the well, use of a tremie for topping off is required for cement placement deeper than 20 feet below land surface or if water is present in the casing. The approved sealant for topping off is identified in condition 3. and 4. of these Specific Conditions of Approval.

8. Any open annulus encountered surrounding the casing shall also be sealed by the placement of the approved sealant. When plugging shallow wells with no construction or environmental concerns, and if the well record on a well to be plugged shows a proper 20-foot annular seal, a plugging plan can propose the use of clean fill material to a nominal 30 feet bgs, then placing an OSE approved sealant to surface. Lacking that information, we would require an excavation of at least 2-feet which shall then be filled in its entirety with sealant to surface.

9. Should the NMED, or another regulatory agency sharing jurisdiction of the project authorize, or by regulation require a more stringent well plugging procedure than herein acknowledged, the more-stringent procedure should be followed. This, in part, includes provisions regarding pre-authorization to proceed, contaminant remediation, inspection, pulling/perforating of casing, or prohibition of free discharge of any fluid from the borehole during or related to the plugging process.

10. NMOSE witnessing of the plugging of the soil boring will not be required.

11. Any deviation from this plan must obtain an approved variance from this office prior to implementation.

12. A Well Plugging Record itemizing actual abandonment process and materials used shall be filed with the State Engineer within 30 days after completion of well plugging. For the plugging record, please resurvey coordinate location for well and note coordinate system for GPS unit. Please attach a copy of these plugging conditions.

The NMOSE Well Plugging Plan of Operations is hereby approved with the aforesaid conditions applied.

Witness my hand and seal this 10th day of July 2023

Mike A. Hamman, P.E. State Engineer

By: K. Parekh

Kashyap Parekh
Water Resources Manager I

GREAT SEAL OF THE STATE OF NEW MEXICO 1912

2

WELL PLUGGING PLAN OF OPERATIONS

NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging methodology.

Alert! Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NM Bureau of Geology geoinfo.nmt.edu/resources/water/cgmn/ if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email nmbg-waterlevels@nmt.edu. prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

I. FILING FEE: There is no filing fee for this form.

II. GENERAL / WELL OWNERSHIP: ☐ Check here if proposing one plan for multiple monitoring wells on the same site and attaching WD-08m

Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: TBD C-4758-P001

Name of well owner: XTO Energy Inc

Mailing address: 3401 E. Greene Street County: Eddy

City: Carlsbad State: New Mexico Zip code: 88220

Phone number: 575-200-0729 E-mail: Garrett.Green@ExxonMobil.com

III. WELL DRILLER INFORMATION:

Well Driller contracted to provide plugging services: Scarborough Drilling Inc

New Mexico Well Driller License No.: WD-1188 Expiration Date: 3/31/2024

IV. WELL INFORMATION: ☐ **Check here if this plan describes method for plugging multiple monitoring wells on the same site and attach supplemental form WD-08m and skip to #2 in this section.**

Note: A copy of the existing Well Record for the well(s) to be plugged should be attached to this plan.

1) GPS Well Location: Latitude: 32 deg, 7 min, 24.40 sec
Longitude: 103 deg, 53 min, 47.32 sec, NAD 83

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2) Reason(s) for plugging well(s):

Monitoring well to be plugged when no longer needed. Dry borehole will be plugged within 3 days of completion if encountered

3) Was well used for any type of monitoring program? No If yes, please use section VII of this form to detail what hydrogeologic parameters were monitored. If the well was used to monitor contaminated or poor quality water, authorization from the New Mexico Environment Department may be required prior to plugging.

4) Does the well tap brackish, saline, or otherwise poor quality water? NA If yes, provide additional detail, including analytical results and/or laboratory report(s):

5) Static water level: NA feet below land surface / feet above land surface (circle one)

6) Depth of the well: 110 feet

7) Inside diameter of innermost casing: 2 inches.

8) Casing material: Temporary SCH 40 PVC

9) The well was constructed with:

☐ an open-hole production interval, state the open interval: NA

☐ a well screen or perforated pipe, state the screened interval(s): NA

10) What annular interval surrounding the artesian casing of this well is cement-grouted? NA

11) Was the well built with surface casing? NO If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? NA If yes, please describe:

12) Has all pumping equipment and associated piping been removed from the well? NA If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.

V. DESCRIPTION OF PLANNED WELL PLUGGING:

☐ **If plugging method differs between multiple wells on same site, a separate form must be completed for each method.**

Note: If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such as geophysical logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this plugging plan.

Also, if this planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by the applicant.

1) Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:

Temporary 2 inch well will be removed. If no water is encountered, drill cuttings will be used to ten feet below ground surface (bgs) and plugged from 0 to 10 feet bgs with hydrated bentonite. If groundwater is encountered, borehole will be plugged, tremie pipe from the bottom upwards to a slurry of Type I/II neat cement.

2) Will well head be cut-off below land surface after plugging? YES

VI. PLUGGING AND SEALING MATERIALS:

Note: The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant. Attach a copy of the batch mix recipe from the cement company and/or product description for specialty cement mixes or any sealant that deviates from the list of OSE approved sealants.

1) For plugging intervals that employ cement grout, complete and attach Table A.

2) For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.

3) Theoretical volume of grout required to plug the well to land surface: 287 gallons(8 inch borehole)

4) Type of Cement proposed: Type I/II Neat Cement

5) Proposed cement grout mix: <6.0 gallons of water per 94 pound sack of Portland cement.

6) Will the grout be: _____ batch-mixed and delivered to the site

x mixed on site

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7) Grout additives requested, and percent by dry weight relative to cement:

NA

8) Additional notes and calculations:

NA

VII. ADDITIONAL INFORMATION: List additional information below, or on separate sheet(s):

NA

VIII. SIGNATURE:

I, Benjamin Belill, say that I have carefully read the foregoing Well Plugging Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Well Plugging Plan of Operations and attachments are true to the best of my knowledge and belief.

Benjamin Belill Digitally signed by Benjamin Belill Date: 2023.07.06 10:36:39 -04'00'

Signature of Applicant Date

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IX. ACTION OF THE STATE ENGINEER:

This Well Plugging Plan of Operations is:

X Approved subject to the attached conditions.

_____ Not approved for the reasons provided on the attached letter.

Witness my hand and official seal this 10th day of July, 2023

Mike A. Hamman P.E., New Mexico State Engineer

By: K.Parekh

KASHYAP PAREKH

W.R.M. I

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)	NA	NA	0
Bottom of proposed interval of grout placement (ft bgl)	NA	NA	110
Theoretical volume of grout required per interval (gallons)	NA	NA	287
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement	NA	NA	<6.0
Mixed on-site or batch-mixed and delivered?	NA	NA	onsite
Grout additive 1 requested	NA	NA	NA
Additive 1 percent by dry weight relative to cement	NA	NA	NA
Grout additive 2 requested	NA	NA	NA
Additive 2 percent by dry weight relative to cement	NA	NA	NA

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TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)	NA	NA	0
Bottom of proposed sealant of grout placement (ft bgl)	NA	NA	10
Theoretical volume of sealant required per interval (gallons)	NA	NA	26
Proposed abandonment sealant (manufacturer and trade name)	NA	NA	Bariod Hole Plug

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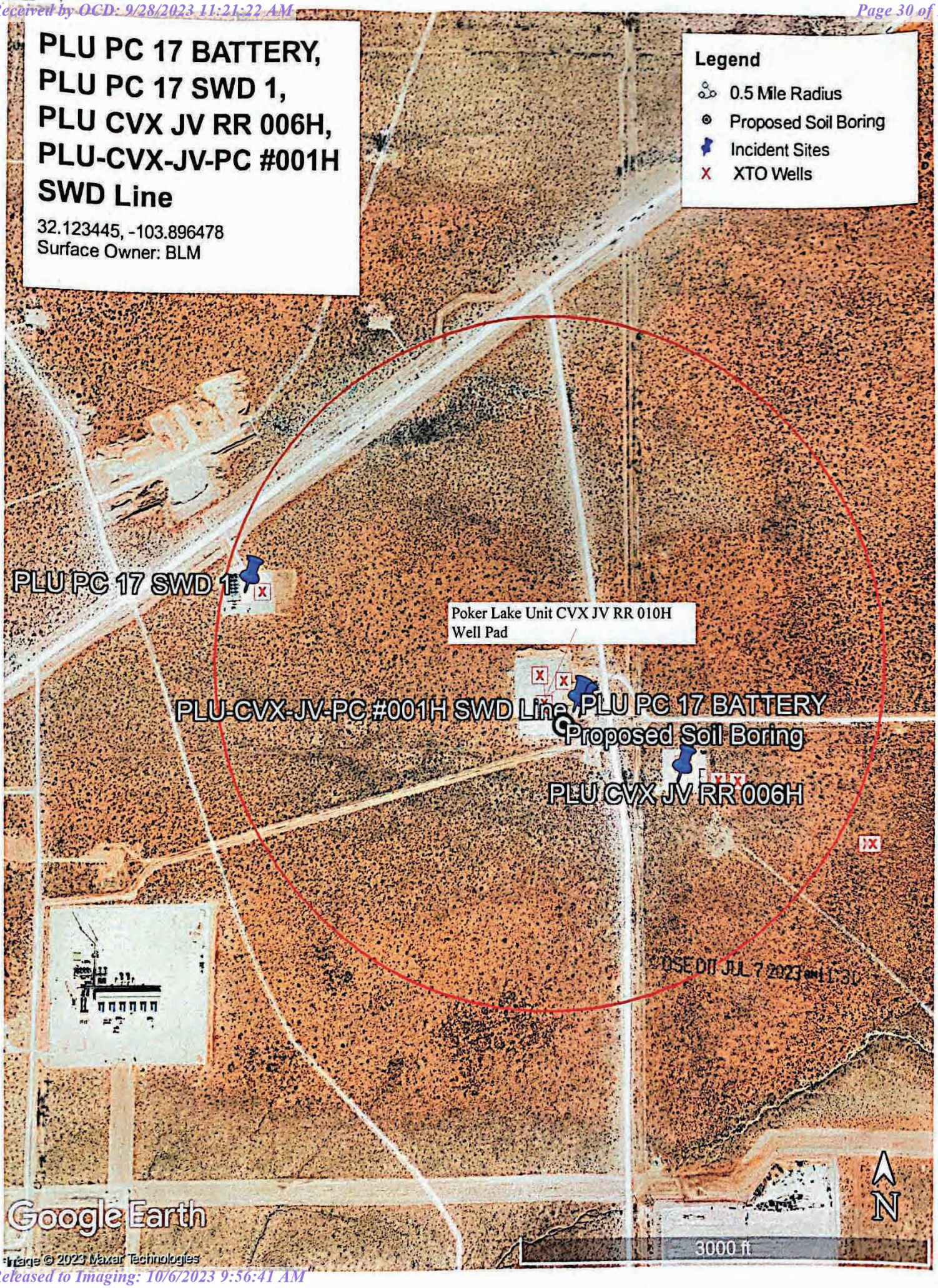
PLU PC 17 BATTERY,
PLU PC 17 SWD 1,
PLU CVX JV RR 006H,
PLU-CVX-JV-PC #001H
SWD Line
32.123445, -103.896478
Surface Owner: BLM
Legend
0.5 Mile Radius
Proposed Soil Boring
Incident Sites
XTO Wells
PLU PC 17 SWD 1
Poker Lake Unit CVX JV RR 010H
Well Pad
PLU-CVX-JV-PC #001H SWD Line
PLU PC 17 BATTERY
Proposed Soil Boring
PLU CVX JV RR 006H
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Google Earth
Image © 2023 Maxar Technologies
3000 ft
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APPENDIX B

October 9, 2019 Closure Request

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

October 9, 2019

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

RE: Closure Request
Poker Lake Unit CVX JV PC 001H (AKA PLU PC 17)
Remediation Permit Numbers 2RP-3180 and 2RP-3813
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, soil sampling, and excavation activities at the Poker Lake Unit (PLU) CVX JV PC 001H (AKA PLU PC 17) (Site) in Unit P, Section 17, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, soil sampling, and excavation activities was to address impacts to soil following two separate events that caused the release of produced water at the Site.

The releases are 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 releases are categorized as Tier IV sites in the Compliance Agreement, meaning the releases occurred prior to August 14, 2018, the effective date of 19.15.29 NMAC; however, remediation was ongoing.

RELEASE BACKGROUND

On July 27, 2015, a fuse weld on a four-inch poly produced water transfer line failed, releasing approximately 39 barrels (bbls) of produced water to the ground surface on the north side of the battery. A vacuum truck was used to recover approximately 1 bbl of produced water. The former operator reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 (Form C-141) on July 29, 2015, and was assigned Remediation Permit (RP) Number 2RP-3180 (Attachment 1).

On July 23, 2016, a poly flow line was located too close to the flare and heat from the flare caused the line to rupture. Approximately 9.5 bbls of produced water were released to the well pad and surrounding soils. The line was repaired and relocated away from the flare. A response crew was

dispatched to the location to excavate and sample the release area. The former operator reported the release to the NMOCD on a Form C-141 on July 24, 2016, and was assigned RP Number 2RP-3813 (Attachment 1).

Although the releases 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. Since both releases occurred on the same well pad, excavation and sampling activities were completed to address and close both releases simultaneously. Based on the site assessment activities and results of the soil sampling events, XTO is requesting no further action for these two release events.

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 5,855 feet southeast of the Site. The water well has a depth to groundwater of 264 feet and a total depth of 280 feet. Ground surface elevation at the water well location is 3,209 feet above mean sea level (AMSL), which is approximately 34 feet lower in elevation than the Site. The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash located approximately 3,198 feet southwest 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.

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

During June 2019, LTE personnel inspected the Site to evaluate the release extents based on information provided on the Form C-141s and visual observations. Surficial staining was observed near the former flare location, in the release area associated with the flow line rupture (2RP-3813). No evidence of the historical produced water transfer line release, located north of the battery, was observed (2RP-3180).

Between June 28, and July 3, 2019, LTE personnel returned to the Site to oversee site assessment and excavation activities as indicated by visual observations and field screening results. Potholes were advanced via track-hoe at nine locations within and around the release extents. Potholes PH01 and PH04 through PH09 were advanced around the former flare location to depths ranging from 4 feet to 8 feet bgs to assess for potential soil impacts associated with release 2RP-3813. Potholes PH02 and PH03 were advanced north of the tank battery to a depth of 4 feet bgs to assess for potential soil impacts associated with release 2RP-3180. Delineation soil samples were collected from each pothole PH01 through PH09 at depths ranging from 2 feet to 8 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach© chloride QuanTab© test strips, respectively. Based on visual observations and field screening results from potholes PH02 and PH03, no soil excavation was warranted in the release area associated with 2RP-3180. Based on visual observations and field screening results in the release area associated with 2RP-3813, excavation of impacted soil was warranted. Field screening results and observations for each pothole were logged on lithologic/soil sampling logs, which are included in Attachment 2. The pothole and delineation soil sample locations are depicted on Figure 2.

On July 3, 2019, LTE personnel was at the Site to oversee excavation of soil in the release area associated with 2RP-3813 as indicated by visual observations, potholing activities, and field screening results. To direct excavation activities, LTE screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by depositing five aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing.

Composite soil samples SW01 through SW05 were collected from the sidewalls of the excavation from depths ranging from ground surface to 4 feet bgs. Composite soil samples FS01 through FS06 were collected from the floor of the excavation from a depth of 4 feet bgs. The excavation extent and excavation soil sample locations are depicted on Figure 3.

The delineation and excavation 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. Photographic documentation was conducted during the Site visit. Photographs are included in Attachment 3.

The excavation extent measured approximately 2,917 square feet in area. A total of approximately 430 cubic yards of impacted soil were removed from the excavation. The impacted soil was transported and properly disposed of at the Lea Land landfill facility located in Hobbs, New Mexico.

ANALYTICAL RESULTS

Laboratory analytical results indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in all delineation soil samples collected from potholes PH01 through PH09. Laboratory analytical results indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in excavation soil samples SW01 through SW05 and FS01 through FS06, collected from the final excavation extent associated with release 2RP-3813. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

CLOSURE REQUEST

Potholes were advanced at nine locations within the two historical release areas to assess for potential soil impacts resulting from the July 27, 2015 and July 23, 2016 produced water releases at the Site.

Impacted soil was excavated from the release area associated with 2RP-3813. Laboratory analytical results for the excavation soil samples collected from the final excavation extent indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Delineation soil sampling was completed in and around the release extent. Laboratory analytical results for the delineation soil samples collected from potholes PH01 and PH04 through PH09 indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria, and confirmed that the impacted soil had been removed. Based on the excavation and delineation soil sample analytical results, no further remediation was required.

Delineation soil sampling was completed in the release area associated with 2RP-3180. Laboratory analytical results for the delineation soil samples collected from potholes PH02 and PH03 indicated that BTEX, GRO/DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on visual observations, field screening activities in the release area, and

laboratory analytical results for the delineation soil samples collected from potholes PH02 and PH03, no further remediation was required.

Initial response efforts, natural attenuation, and excavation of impacted soil have mitigated impacts at this Site. XTO requests no further action for RP Numbers 2RP-3180 and 2RP-3813. XTO will backfill the excavations with material purchased locally and recontour the Site to match pre-existing site conditions. An updated NMOCD Form C-141 for each release 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.

Bryan Paraspolo
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	Excavation Soil Sample Locations
Figure 3	Delineation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Initial/Final NMOCD Form C-141 (2RP-3180 and 2RP-3813)
Attachment 2	Lithologic / Soil Sample Logs
Attachment 3	Photographic Log
Attachment 4	Laboratory Analytical Reports

FIGURES

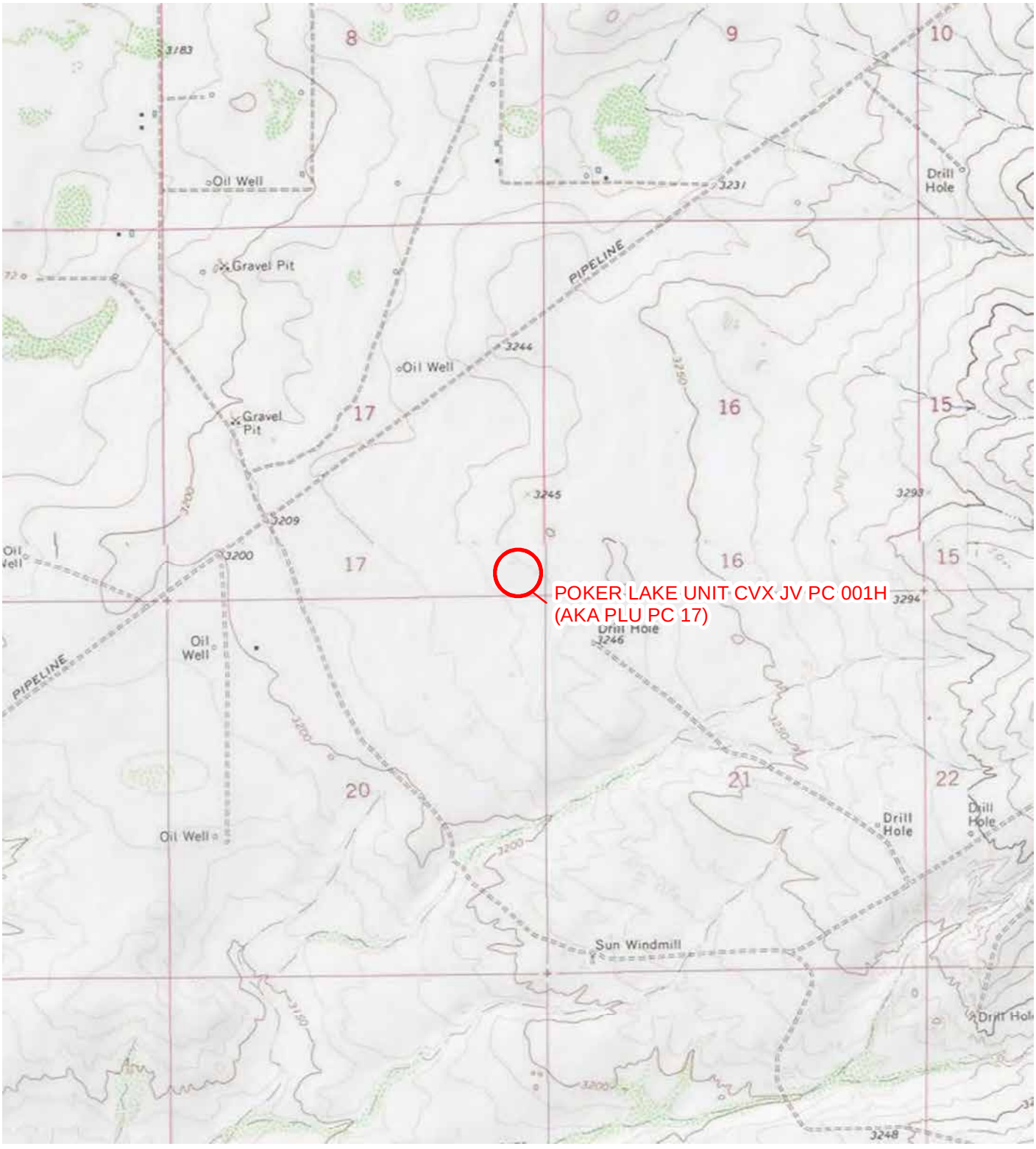

IMAGE COURTESY OF ESRI/USGS

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

N

NEW MEXICO

NOTE: REMEDIATION
PERMIT NUMBER
2RP-3180 AND 2RP-3813

FIGURE 1
SITE LOCATION MAP
POKER LAKE UNIT CVX JV PC 001H (AKA PLU PC 17)
UNIT P SEC 17 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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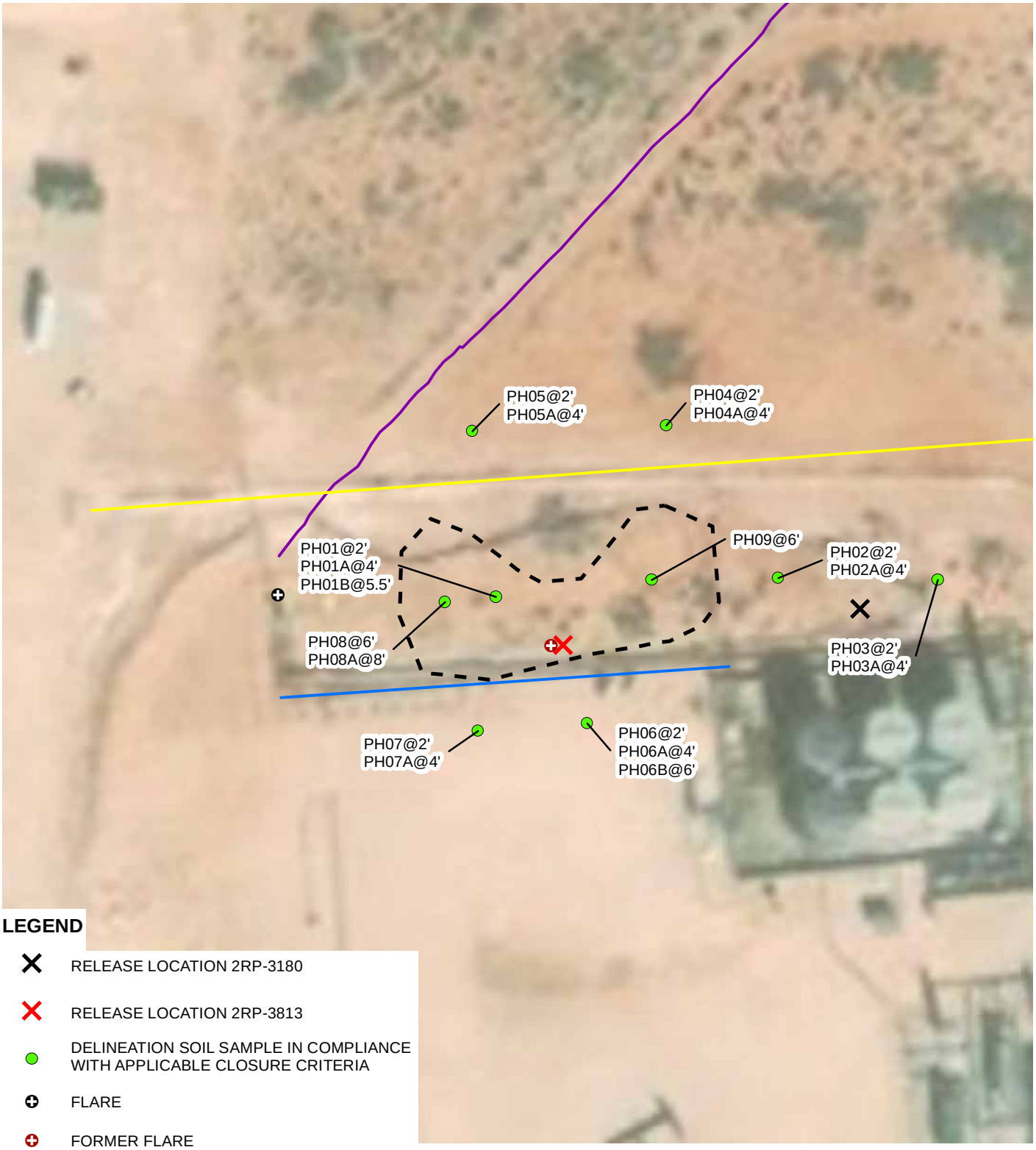


LEGEND

- RELEASE LOCATION 2RP-3180
- RELEASE LOCATION 2RP-3813
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- FLARE
- FORMER FLARE
- GAS LINE
- SUBSURFACE WATER LINE
- WATER LINE
- EXCAVATION EXTENT

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
NOTE: REMEDIATION PERMIT NUMBER 2RP-3180 AND 2RP-3813

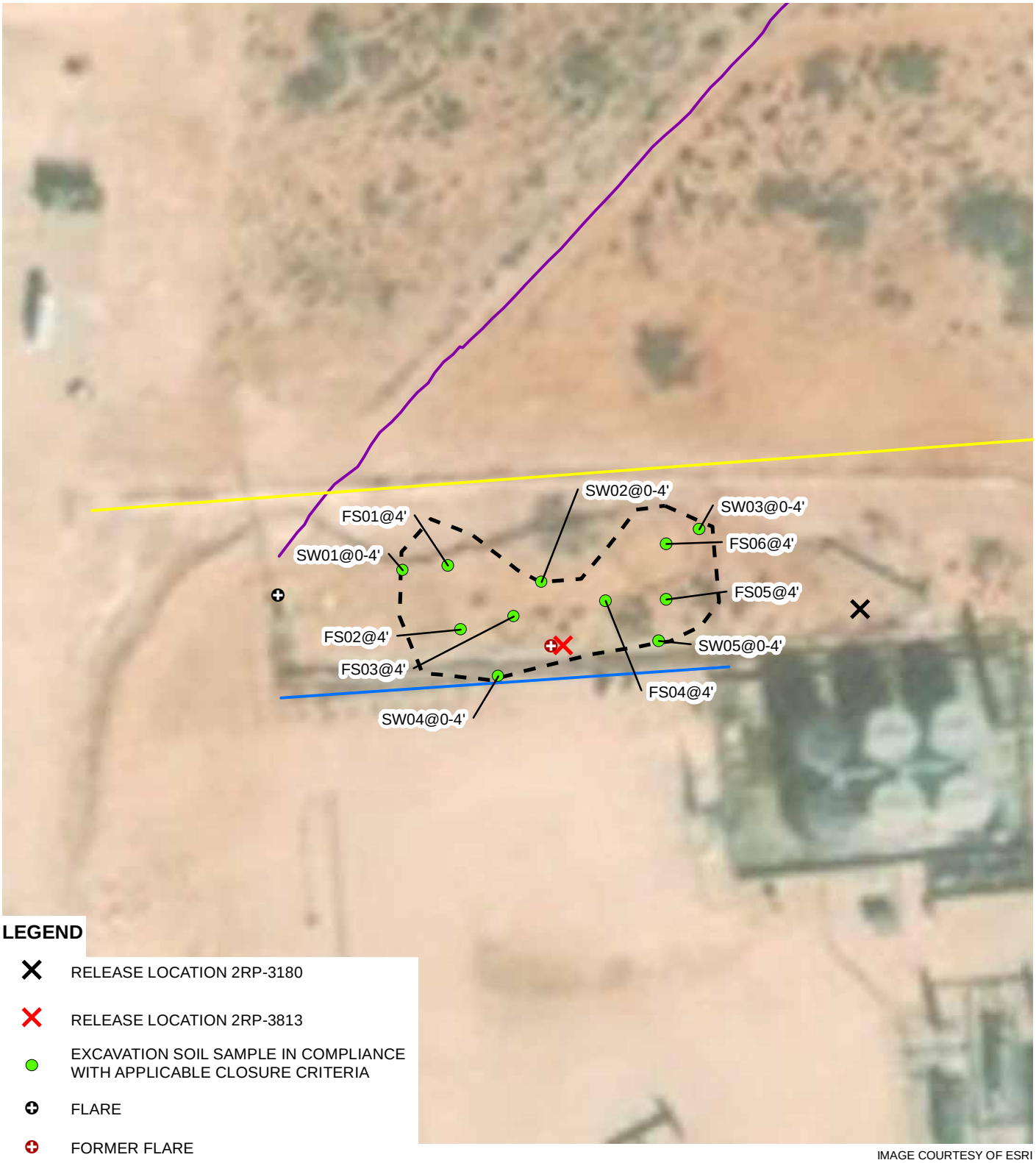
IMAGE COURTESY OF ESRI

0 40 80
Feet

N

FIGURE 2
DELINEATION SOIL SAMPLE LOCATIONS
POKER LAKE UNIT CVX JV PC 001H (AKA PLU PC 17)
UNIT P SEC 17 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919135_PLU CVX JV PC 001H\012919135_FIG02_DELINEATION_2019.mxd



LEGEND

- RELEASE LOCATION 2RP-3180
- RELEASE LOCATION 2RP-3813
- EXCAVATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- FLARE
- FORMER FLARE
- GAS LINE
- SUBSURFACE WATER LINE
- WATER LINE
- EXCAVATION EXTENT

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
NOTE: REMEDIATION PERMIT NUMBER 2RP-3180 AND 2RP-3813

IMAGE COURTESY OF ESRI

0 40 80
Feet

N

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
POKER LAKE UNIT CVX JV PC 001H (AKA PLU PC 17)
UNIT P SEC 17 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919135_PLU CVX JV PC 001H\012919135_FIG03_EXCAVATION_2019.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

POKER LAKE UNIT CVX JV PC 001H (AKA PLU PC 17)
REMEDIATION PERMIT NUMBERS 2RP-3180 and 2RP-3813
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)
PH01	2	06/28/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	1,980
PH01A	4	06/28/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	114
PH01B	5.5	06/28/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	86.5
PH02	2	06/28/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	71.2
PH02A	4	06/28/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	57.3
PH03	2	06/28/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	96.8
PH03A	4	06/28/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	90.5
PH04	2	06/28/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	39.9
PH04A	4	06/28/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	60.1
PH05	2	06/28/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	82.8
PH05A	4	06/28/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	35.4
PH06	2	06/28/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	607
PH06A	4	06/28/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	565
PH06B	6	06/28/2019	<0.00197	<0.00197	<0.00197	<0.00197	<0.00197	<15.0	<15.0	<15.0	<15.0	<15.0	78.7
PH07	2	06/28/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	252
PH07A	4	06/28/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	89.6
PH08	6	07/03/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	791
PH08A	8	07/03/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	46.3
PH09	6	07/03/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	113
SW01	0-4	07/03/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	342
SW02	0-4	07/03/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	285
SW03	0-4	07/03/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	226
SW04	0-4	07/03/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	19.9
SW05	0-4	07/03/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	122
FS01	4	07/03/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	2,110
FS02	4	07/03/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	2,260
FS03	4	07/03/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	2,450
FS04	4	07/03/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	1,130
FS05	4	07/03/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	881
FS06	4	07/03/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	2,110
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 xylenes
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram
MRO - motor oil range organics
NMAC - New Mexico Administrative Code
NMOCD - New Mexico Oil Conservation Division
NE - not established
TPH - total petroleum hydrocarbons
Bold - indicates result exceeds the applicable regulatory standard
< - indicates result is below laboratory reporting limits
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018

ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141 (2RP-2664 and 2RP-3213)

NM OIL CONSERVATION
ARTESIA DISTRICT
JUL 29 2015
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

nAB1521535958 — 2RP-3180

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 PC 001H (AKA PLU PC 17)	Facility Type: Exploration and Production

Surface Owner:Federal	Mineral Owner:	API No. 3001536635

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/*South Line*	Feet from the	*East*/West Line	County
P	17	25S	30E	350		350		Eddy

Latitude: 32.123950 **Longitude:** 103.895943

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 39 barrels	Volume Recovered: 1 barrel
Source of Release: Fuse weld on 4 inch poly failed	Date and Hour of Occurrence: 7-27-15 @ 10:00am	Date and Hour of Discovery: 7-27-15 @ 10:19am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher via email	
By Whom? Bradley Blevins	Date and Hour 7-27-15 @ 2:00pm	
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 fuse weld on 4 inch poly PW transfer line failed, releasing 39 barrels of produced water to the ground surface. A vacuum truck was called to the location and was able to recover 1 barrel of the fluid.

Describe Area Affected and Cleanup Action Taken.*
The release occurred on the north side of the battery in sandy soil conditions, a vacuum truck was used to recover 1 barrel of 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

Printed Name: Bradley Blevins

Title: Assistant Remediation Foreman

E-mail Address: bblevins@basspet.com

Date: 7-29-15 Phone: 432-214-3704

* Attach Additional Sheets If Necessary

OIL CONSERVATION DIVISION

Signed By Mike Bratcher

Approved by Environmental Specialist:

Approval Date: 8/3/15 Expiration Date: N/A

Conditions of Approval: Attached ☐

Remediation per O.C.D. Rules & Guidelines
SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 9/3/15

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-3180
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-3180
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude N 32.123950 Longitude W 103.895943
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: PLU CVX JV PC 001H (AKA PLU PC 17)	Site Type: Production Well Facility
Date Release Discovered: 7/27/2015	API# *(if applicable):* 30-015-36635

Unit Letter	Section	Township	Range	County
P	17	25S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls):	Volume Recovered (bbls):
☒ Produced Water	Volume Released (bbls): 39	Volume Recovered (bbls): 1
	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 fuse weld on a 4-inch poly produced water transfer line failed, releasing 39 barrels of produced water to the ground surface on the north side of the battery.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3180
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? Greater than 25 bbls were released. No watercourse was reached.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Immediate notice was given to Mike Bratcher (NMOCD) via email on July 27, 2015 at 2:00pm	

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: 10/11/2019

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

OCD Only

Received by: Date:

Incident ID	
District RP	2RP-3180
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-3180
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: 10/11/2019

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-3180
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: 10/11/2019

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

OCD Only

Received by: Date:

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

Closure Approved by: Date:

Printed Name: Title:

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

NM OIL CONSERVATION
ARTESIA DISTRICT
JUL 29 2016
RECEIVED

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

nAB1621451328

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 PC 001H (AKA PLU PC 17)	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner:	API No.30-015-36635

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	17	25S	30E	350		350		Eddy

Latitude: 32.123950 **Longitude**: 103.895943

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 9.5 barrels PW	Volume Recovered: None
Source of Release: Poly line failed	Date and Hour of Occurrence 7-23-16 @ 8:00am	Date and Hour of Discovery 7-23-16 @ 8:45am
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
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.*
Poly flowline was located to close to the flare, the heat from the flare caused poly line to rupture. Produced water was released to the well pad and surrounding soils. An initial response crew will be dispatched to the location to conduct a scrape and sampling event.

Describe Area Affected and Cleanup Action Taken.*
Poly line was repaired and relocated away from the flare. A vacuum truck was called to the location, by the time the driver arrived to recover the standing fluid had soaked in.

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
Printed Name: Bradley Blevins	Approved by Environmental Specialist:
Title: Assistant Remediation Foreman	Approval Date: 8/1/16 Expiration Date: N/A
E-mail Address: bblevins@basspet.com	Conditions of Approval: Attached ☐
Date: 7-28-16 Phone: 432-214-3704	Remediation per O.C.D. Rules & Guidelines SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 9/3/16

* Attach Additional Sheets If Necessary

2RP-3813

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-3813
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-3813
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude N 32.123950 Longitude W -103.895943
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: PLU CVX JV PC 001H (AKA PLU PC 17)	Site Type: Production Well Facility
Date Release Discovered: 7/23/2016	API# *(if applicable):* 30-015-36635

Unit Letter	Section	Township	Range	County
P	17	25S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls):	Volume Recovered (bbls):
☒ Produced Water	Volume Released (bbls): 9.5	Volume Recovered (bbls): 0
	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 poly flowline was located too close to the flare and the heat cause the poly line to rupture. Produced water was released to the well pad and surrounding soils.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3813
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? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

Initial Response

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

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:
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: 10/11/2019

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-3813
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-3813
Facility ID	
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 10/11/2019

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-3813
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: 10/11/2019

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

OCD Only

Received by: Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

ATTACHMENT 2: LITHOLOGIC / SOIL SAMPLE LOGS

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

Identifier: PH01	Date: 6/28/19
Project Name: PLU CUKJUPC 001H	RP Number: 2RP-3813, 2RP-3180
Logged By: Ben Belill	Method: Track hoe
Hole Diameter: N/A	Total Depth: 5.5'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: PID, Chlorides

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0		SP	SAND, dry, brown, poorly graded, f.-m., some vegetation / roots, no odor.
					1			
D	1,971	5.4	N	PH01	2	2'	CLCHE	CALICHE, dry, tan-offwhite, well consolidated, no odor. (12:10)
					3			
D	<124	10.6	N	PH01A	4	4'	CLCHE	SAA (Same As Above) (12:15)
					5			
D	<124	2.6	N	PH01B		5.5'	CLCHE	SAA (12:20)
					6			EOP @ 5.5'
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: PH02	Date: 6/28/19
Project Name: PLU CVXJU PC 001H	RP Number: 2RP-3813, 2RP-3180
Logged By: BB	Method: Track hoe
Hole Diameter: NA	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:
Field Screening: PID, Chlorides
Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0–1		SP	SAND, dry, brown, poorly graded, f.-m., some vegetation / roots, no odor
D	<112	0.7	N	PH02	2	2'	CLCHE	CALICHE, dry, tan-off wht, well consolidation, no odor. (12:30)
D	<112	2.3	N	PH02A	4	4'	CLCHE	SAA (Same As Above) (12:45) ↑ EOP @ 4'
					5–12			

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

Identifier: PH03	Date: 6/28/19
Project Name: PLU CUX JU PC 001H	RP Number: 2RP-3813, 2RP-3180
Logged By: BB	Method: Track Hoe
Hole Diameter: N/A	Total Depth: 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:
Field Screening: PID, chlorides
Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0		SP	SAND, dry, brown, poorly graded, f.-m, some vegetation/roots, no odor.
					1			
D	<112	2.3	N	PH03	2	2'	CLCHE	CALICHE, dry, tan-off wht, well consolidated, no odor. (13:00)
					3			
D	<112	2.0	N	PH03A	4	4'	CLCHE	SAA (same as above) (13:20)
					5			EOP @ 4'
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier:	Date:
PH04	6/28/19
Project Name:	**RP Number:**
PLU CUKTUPC 001H	2RP-3813, 2RP-3180
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: BB / Method: Trade Gas
Lat/Long:	Field Screening: PID, Chlorides / Hole Diameter: N/A / Total Depth: 4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0		SP	SAND, dry, brown, poorly graded, f.-m., some vegetation/roots, no odor.
					1		CLCHE	CALICHE, dry, tan-off wht, well consolidated, no odor.
D	<124	1.4	N	PH04	2	2'	CLCHE	SAA (Same As Above) (13:40)
					3			
D	<124	0.9	N	PH04A	4	4'	CLCHE	SAA (Same As Above) (13:50) EOP@4'
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier:	Date:
PH05	6/28/19
Project Name:	**RP Number:**
PLU CUYJUPC 001H	2RP-388, 2RP-3180
Logged By: BB	**Method:** trackhoe
Hole Diameter: N/A	**Total Depth:** 4'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:
Field Screening: PID, chlorides
Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0		SP	SAND, dry, brown, poorly graded f.-m., some vegetation / roots, no odor.
					1			
D	<124	2.1	N	PH05	2	2'	CLCHE	CALICHE, dry, tan-off wht, well consolidated, no odor. (1400)
					3			
D	<124	3.2	N	PH05A	4	4'	CLCHE	SAA (Same As Above) (1410)
								EOP @ 4'
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Compliance · Engineering · Remediation

Identifier: PH06	Date: [redacted] 6/28/19
Project Name: ~~Corral Canyon Fed 11~~ PLU CVKJV PC 001H	RP Number: [redacted] 2RP-3813, 2RP-3180
Logged By: BEN BELILL	Method: Trackhoe
Hole Diameter: N/A	Total Depth: 6'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: CHLORIDES, TPH, BTEX, GRO, DRO, and MRO.

Comment All Chloride test include a 60% error factor.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0		CLCHE W/ Sand (Fill)	CALICHE w/ sand, dry, lt brn, poorly consolidated, no odor, Fill.
					1			
D	531	0.7	N	PH06	2	2'	CLCHE	CALICHE, dry, tan - off wht, well consolidated, no odor. (14:45)
					3			
D	742	4.5	N	PH06A	4	4'	CLCHE	SAA (Same As Above) (14:50)
					5			
D	<124	3.2	N	PH06B	6	6'	CLCHE	SAA (15:00) ← EOPe 6'
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: PH07 | Date: 6/28/19
Project Name: ~~Corral Canyon Fed 1H~~ RLW CVK FP PC 001H | RP Number: ~~2RP-5201~~ 2RP-5813, 2RP-3180

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: BEN BELILL | Method: Truck hose
Lat/Long: | Field Screening: CHLORIDES, TPH, BTEX, GRO, DRO, and MRO. | Hole Diameter: N/A | Total Depth: 4'

Comment: All Chloride test include a 60% error factor.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0		CLCHE w/ Sand, fill,	CALICHE. w/ sand, dry, lt brn, poorly consolidated, no odor, fill.
					1		SP	SAND, dry, brown-red, poorly graded, f.-m., no odor.
D	243	0.8	N	PH07	2	2'	CLCHE	CALICHE, dry, tan-off wht, well consolidated, no odor. (15:10)
					3			
D	<124	6.4	N	PH07A	4	4'	CLCHE	SAA (Same As Above) (15:15)
					5			EOP @ 4'
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: PH08	Date: 7/3/19
Project Name: PLU CUK JU PC 001H	RP Number: 2RP-3813, 2RP-3180
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: BB / Method: EXCAVATOR
Lat/Long: / Field Screening: CHLORIDES, PID.	Hole Diameter: NA / Total Depth: 8'

Comment: All Chloride test include a 60% error factor.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0–4			Open Excavation
D	1,081	1.2	N	PH08	5–6	6'	CLCHE	CALICHE, dry, tan-off wht, well consolidated, fine crystalline, no odor. (10:40)
D	<124	0.9	N	PH08A	7–8	8'	CLCHE	SAA (Same As Above) (10:50)
								EOB @ 8'
					9–12			

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

Identifier:	Date:
PH09	7/3/19
Project Name:	**RP Number:**
PLU CVX JV PC 001H	2RP-3813, 2RP-3180
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: BB / Method: EXCAVATOR
Lat/Long:	Field Screening: CHLORIDES, PID. / Hole Diameter: N/A / Total Depth: 6'

Comment All Chloride test include a 60% error factor.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0–4			OPEN Excavation
					5			CALICHE, dry, tan-off wht, well consolidated, fine crystalline, no odor.
D	1.0	<MDL	N	PH09	6	6'	CLICHE	(11:00) EOB @ 6'
					7–12			

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: (2RP-3813) View of release area prior to excavation, facing west.

Photograph 2: (2RP-3813) View of open excavation, facing west.

Photograph 3: (2RP-3180) View of release/assessment area, facing west.

Photograph 4: (2RP-3180) View of release area, facing southwest.

PLU CVX JV PC 001H (AKA PC 17 FED 1H)
Eddy County, New Mexico
Photographs Taken: June 28, July 1 - 3, 2019

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS

Analytical Report 629707

for

LT Environmental, Inc.

Project Manager: Ashley Ager

PLU CVX JV PC 001H

2RP-3813, 2RP-3180

11-JUL-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

11-JUL-19

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

Reference: XENCO Report No(s): **629707**
PLU CVX JV PC 001H
Project Address: Delaware Basin

Ashley Ager:

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) 629707. 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. 629707 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 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	06-28-19 12:10	2 ft	629707-001
PH01A	S	06-28-19 12:15	4 ft	629707-002
PH01B	S	06-28-19 12:20	5.5 ft	629707-003
PH02	S	06-28-19 12:30	2 ft	629707-004
PH02A	S	06-28-19 12:45	4 ft	629707-005
PH03	S	06-28-19 13:00	2 ft	629707-006
PH03A	S	06-28-19 13:20	4 ft	629707-007
PH04	S	06-28-19 13:40	2 ft	629707-008
PH04A	S	06-28-19 13:50	4 ft	629707-009
PH05	S	06-28-19 14:00	2 ft	629707-010
PH05A	S	06-28-19 14:10	4 ft	629707-011
PH07	S	06-28-19 15:10	4 ft	629707-012
PH07A	S	06-28-19 15:15	4 ft	629707-013

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV PC 001H

Project ID: *2RP-3813, 2RP-3180*
Work Order Number(s): *629707*

Report Date: *11-JUL-19*
Date Received: *07/02/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3094579 Chloride by EPA 300

Lab Sample ID 629707-011 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 629707-001, -002, -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-3094957 BTEX by EPA 8021B

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

Certificate of Analysis Summary 629707

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV PC 001H

Project Id: 2RP-3813, 2RP-3180
Contact: Ashley Ager
Project Location: Delaware Basin

Date Received in Lab: Tue Jul-02-19 08:05 am
Report Date: 11-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	629707-001		629707-002		629707-003		629707-004		629707-005		629707-006	
	Field Id:	PH01		PH01A		PH01B		PH02		PH02A		PH03	
	Depth:	2- ft		4- ft		5.5- ft		2- ft		4- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-28-19 12:10		Jun-28-19 12:15		Jun-28-19 12:20		Jun-28-19 12:30		Jun-28-19 12:45		Jun-28-19 13:00	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-08-19 15:00		Jul-08-19 15:00		Jul-08-19 15:00		Jul-08-19 15:00		Jul-08-19 15:00		Jul-08-19 15:00	
	Analyzed:	Jul-09-19 06:19		Jul-09-19 06:41		Jul-09-19 07:03		Jul-09-19 07:25		Jul-09-19 07:47		Jul-09-19 08:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	<0.00399	0.00399	<0.00398	0.00398	<0.00401	0.00401	<0.00402	0.00402	<0.00400	0.00400
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-03-19 16:00		Jul-03-19 16:00		Jul-03-19 16:00		Jul-03-19 16:00		Jul-03-19 16:00		Jul-03-19 16:00	
	Analyzed:	Jul-05-19 15:15		Jul-05-19 14:53		Jul-05-19 15:22		Jul-05-19 15:30		Jul-05-19 15:37		Jul-05-19 16:04	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1980	24.8	114	5.00	86.5	5.05	71.2	4.99	57.3	5.01	96.8	5.00
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-05-19 08:00		Jul-05-19 08:00		Jul-05-19 08:00		Jul-05-19 08:00		Jul-05-19 08:00		Jul-05-19 08:00	
	Analyzed:	Jul-05-19 11:00		Jul-05-19 12:14		Jul-05-19 12:38		Jul-05-19 13:02		Jul-05-19 13:27		Jul-05-19 13:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 629707

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV PC 001H

Project Id: 2RP-3813, 2RP-3180
Contact: Ashley Ager
Project Location: Delaware Basin

Date Received in Lab: Tue Jul-02-19 08:05 am
Report Date: 11-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	629707-007		629707-008		629707-009		629707-010		629707-011		629707-012	
	Field Id:	PH03A		PH04		PH04A		PH05		PH05A		PH07	
	Depth:	4- ft		2- ft		4- ft		2- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-28-19 13:20		Jun-28-19 13:40		Jun-28-19 13:50		Jun-28-19 14:00		Jun-28-19 14:10		Jun-28-19 15:10	
BTEX by EPA 8021B SUB: T104704400-18-16	*Extracted:*	Jul-08-19 15:00		Jul-08-19 15:00		Jul-08-19 15:00		Jul-08-19 15:00		Jul-08-19 15:00		Jul-08-19 15:00	
	Analyzed:	Jul-09-19 08:31		Jul-09-19 08:53		Jul-09-19 09:15		Jul-09-19 09:37		Jul-09-19 11:13		Jul-09-19 11:35	
	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	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
m,p-Xylenes		<0.00398	0.00398	<0.00400	0.00400	<0.00402	0.00402	<0.00399	0.00399	<0.00401	0.00401	<0.00402	0.00402
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Total Xylenes		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Total BTEX		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201
Chloride by EPA 300 SUB: T104704400-18-16	*Extracted:*	Jul-03-19 16:00		Jul-03-19 16:00		Jul-03-19 16:00		Jul-03-19 16:00		Jul-03-19 16:00		Jul-03-19 16:00	
	Analyzed:	Jul-05-19 16:12		Jul-05-19 16:26		Jul-05-19 16:34		Jul-05-19 16:41		Jul-05-19 16:48		Jul-05-19 17:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		90.5	5.02	39.9	5.05	60.1	4.98	82.8	5.00	35.4	5.03	252	4.98
TPH by SW8015 Mod SUB: T104704400-18-16	*Extracted:*	Jul-05-19 08:00		Jul-05-19 08:00		Jul-05-19 08:00		Jul-05-19 08:00		Jul-05-19 08:00		Jul-05-19 08:00	
	Analyzed:	Jul-05-19 14:15		Jul-05-19 14:40		Jul-05-19 15:04		Jul-05-19 15:28		Jul-05-19 16:17		Jul-05-19 16:42	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Diesel Range Organics (DRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Motor Oil Range Hydrocarbons (MRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Total TPH		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Total GRO-DRO		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9

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Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 629707

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV PC 001H

Project Id: 2RP-3813, 2RP-3180
Contact: Ashley Ager
Project Location: Delaware Basin

Date Received in Lab: Tue Jul-02-19 08:05 am
Report Date: 11-JUL-19
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	629707-013					
	Field Id:	PH07A					
	Depth:	4- ft					
	Matrix:	SOIL					
	Sampled:	Jun-28-19 15:15					
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-08-19 15:00					
	Analyzed:	Jul-09-19 11:57					
	Units/RL:	mg/kg	RL				
Benzene		<0.00200	0.00200				
Toluene		<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200				
m,p-Xylenes		<0.00399	0.00399				
o-Xylene		<0.00200	0.00200				
Total Xylenes		<0.00200	0.00200				
Total BTEX		<0.00200	0.00200				
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-03-19 16:00					
	Analyzed:	Jul-05-19 17:17					
	Units/RL:	mg/kg	RL				
Chloride		89.6	4.95				
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-05-19 08:00					
	Analyzed:	Jul-05-19 17:07					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0				
Diesel Range Organics (DRO)		<15.0	15.0				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0				
Total TPH		<15.0	15.0				
Total GRO-DRO		<15.0	15.0				

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id: **PH01** Matrix: Soil Date Received:07.02.19 08.05

Lab Sample Id: 629707-001 Date Collected: 06.28.19 12.10 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.03.19 16.00 Basis: Wet Weight

Seq Number: 3094579 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1980**	24.8	mg/kg	07.05.19 15.15		5

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 07.05.19 08.00 Basis: Wet Weight

Seq Number: 3094602 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.19 11.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.19 11.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.05.19 11.00	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.19 11.00	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.05.19 11.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	07.05.19 11.00	
o-Terphenyl	84-15-1	85	%	70-135	07.05.19 11.00	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-001	Date Collected:	06.28.19 12.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	AMB	Date Prep:	07.08.19 15.00	Basis:	Wet Weight
Seq Number:	3094957			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.09.19 06.19	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.09.19 06.19	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.09.19 06.19	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.09.19 06.19	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.09.19 06.19	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.09.19 06.19	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.09.19 06.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	07.09.19 06.19	
4-Bromofluorobenzene	460-00-4	118	%	70-130	07.09.19 06.19	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id: **PH01A** Matrix: Soil Date Received:07.02.19 08.05

Lab Sample Id: 629707-002 Date Collected: 06.28.19 12.15 Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.03.19 16.00 Basis: Wet Weight

Seq Number: 3094579 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**114**	5.00	mg/kg	07.05.19 14.53		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 07.05.19 08.00 Basis: Wet Weight

Seq Number: 3094602 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.19 12.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.19 12.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.05.19 12.14	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.19 12.14	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.05.19 12.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	07.05.19 12.14	
o-Terphenyl	84-15-1	108	%	70-135	07.05.19 12.14	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-002	Date Collected:	06.28.19 12.15	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	AMB	Date Prep:	07.08.19 15.00	Basis:	Wet Weight
Seq Number:	3094957			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.09.19 06.41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.09.19 06.41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.09.19 06.41	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.09.19 06.41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.09.19 06.41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.09.19 06.41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.09.19 06.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	07.09.19 06.41	
4-Bromofluorobenzene	460-00-4	109	%	70-130	07.09.19 06.41	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id: **PH01B** Matrix: Soil Date Received:07.02.19 08.05

Lab Sample Id: 629707-003 Date Collected: 06.28.19 12.20 Sample Depth: 5.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.03.19 16.00 Basis: Wet Weight

Seq Number: 3094579 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**86.5**	5.05	mg/kg	07.05.19 15.22		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 07.05.19 08.00 Basis: Wet Weight

Seq Number: 3094602 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.19 12.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.19 12.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.05.19 12.38	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.19 12.38	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.05.19 12.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	07.05.19 12.38	
o-Terphenyl	84-15-1	90	%	70-135	07.05.19 12.38	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH01B**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-003	Date Collected:	06.28.19 12.20	Sample Depth:	5.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	AMB	Date Prep:	07.08.19 15.00	Basis:	Wet Weight
Seq Number:	3094957			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.09.19 07.03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.09.19 07.03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.09.19 07.03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.09.19 07.03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.09.19 07.03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.09.19 07.03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.09.19 07.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	07.09.19 07.03	
4-Bromofluorobenzene	460-00-4	114	%	70-130	07.09.19 07.03	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id: **PH02** Matrix: Soil Date Received:07.02.19 08.05

Lab Sample Id: 629707-004 Date Collected: 06.28.19 12.30 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.03.19 16.00 Basis: Wet Weight

Seq Number: 3094579 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**71.2**	4.99	mg/kg	07.05.19 15.30		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 07.05.19 08.00 Basis: Wet Weight

Seq Number: 3094602 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.19 13.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.19 13.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.05.19 13.02	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.19 13.02	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.05.19 13.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	07.05.19 13.02	
o-Terphenyl	84-15-1	97	%	70-135	07.05.19 13.02	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-004	Date Collected:	06.28.19 12.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	AMB	Date Prep:	07.08.19 15.00	Basis:	Wet Weight
Seq Number:	3094957			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.09.19 07.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.09.19 07.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.09.19 07.25	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.09.19 07.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.09.19 07.25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.09.19 07.25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.09.19 07.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	07.09.19 07.25	
1,4-Difluorobenzene	540-36-3	95	%	70-130	07.09.19 07.25	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id: **PH02A** Matrix: Soil Date Received:07.02.19 08.05

Lab Sample Id: 629707-005 Date Collected: 06.28.19 12.45 Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.03.19 16.00 Basis: Wet Weight

Seq Number: 3094579 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**57.3**	5.01	mg/kg	07.05.19 15.37		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 07.05.19 08.00 Basis: Wet Weight

Seq Number: 3094602 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.19 13.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.19 13.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.05.19 13.27	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.19 13.27	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.05.19 13.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	07.05.19 13.27	
o-Terphenyl	84-15-1	91	%	70-135	07.05.19 13.27	

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LT Environmental, Inc., Arvada, CO

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Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-005	Date Collected:	06.28.19 12.45	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	AMB	Date Prep:	07.08.19 15.00	Basis:	Wet Weight
Seq Number:	3094957			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.09.19 07.47	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.09.19 07.47	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.09.19 07.47	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.09.19 07.47	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.09.19 07.47	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.09.19 07.47	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.09.19 07.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	07.09.19 07.47	
4-Bromofluorobenzene	460-00-4	116	%	70-130	07.09.19 07.47	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-006	Date Collected:	06.28.19 13.00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.03.19 16.00	Basis:	Wet Weight
Seq Number:	3094579			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**96.8**	5.00	mg/kg	07.05.19 16.04		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.19 08.00	Basis:	Wet Weight
Seq Number:	3094602			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.19 13.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.19 13.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.05.19 13.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.19 13.51	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.05.19 13.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	07.05.19 13.51	
o-Terphenyl	84-15-1	104	%	70-135	07.05.19 13.51	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-006	Date Collected:	06.28.19 13.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	AMB	Date Prep:	07.08.19 15.00	Basis:	Wet Weight
Seq Number:	3094957			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.09.19 08.09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.09.19 08.09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.09.19 08.09	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.09.19 08.09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.09.19 08.09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.09.19 08.09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.09.19 08.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	07.09.19 08.09	
1,4-Difluorobenzene	540-36-3	98	%	70-130	07.09.19 08.09	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-007	Date Collected:	06.28.19 13.20	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.03.19 16.00	Basis:	Wet Weight
Seq Number:	3094579			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**90.5**	5.02	mg/kg	07.05.19 16.12		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.19 08.00	Basis:	Wet Weight
Seq Number:	3094602			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.05.19 14.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.05.19 14.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	07.05.19 14.15	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.05.19 14.15	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	07.05.19 14.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	07.05.19 14.15	
o-Terphenyl	84-15-1	105	%	70-135	07.05.19 14.15	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-007	Date Collected:	06.28.19 13.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	AMB	Date Prep:	07.08.19 15.00	Basis:	Wet Weight
Seq Number:	3094957			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.09.19 08.31	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.09.19 08.31	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.09.19 08.31	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.09.19 08.31	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.09.19 08.31	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.09.19 08.31	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.09.19 08.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	07.09.19 08.31	
4-Bromofluorobenzene	460-00-4	115	%	70-130	07.09.19 08.31	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-008	Date Collected:	06.28.19 13.40	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.03.19 16.00	Basis:	Wet Weight
Seq Number:	3094579			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**39.9**	5.05	mg/kg	07.05.19 16.26		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.19 08.00	Basis:	Wet Weight
Seq Number:	3094602			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.19 14.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.19 14.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.05.19 14.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.19 14.40	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.05.19 14.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	07.05.19 14.40	
o-Terphenyl	84-15-1	93	%	70-135	07.05.19 14.40	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-008	Date Collected:	06.28.19 13.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	AMB	Date Prep:	07.08.19 15.00	Basis:	Wet Weight
Seq Number:	3094957			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.09.19 08.53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.09.19 08.53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.09.19 08.53	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.09.19 08.53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.09.19 08.53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.09.19 08.53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.09.19 08.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	07.09.19 08.53	
4-Bromofluorobenzene	460-00-4	117	%	70-130	07.09.19 08.53	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-009	Date Collected:	06.28.19 13.50	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.03.19 16.00	Basis:	Wet Weight
Seq Number:	3094579			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**60.1**	4.98	mg/kg	07.05.19 16.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.19 08.00	Basis:	Wet Weight
Seq Number:	3094602			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.19 15.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.19 15.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.05.19 15.04	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.19 15.04	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.05.19 15.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	07.05.19 15.04	
o-Terphenyl	84-15-1	89	%	70-135	07.05.19 15.04	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-009	Date Collected:	06.28.19 13.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	AMB	Date Prep:	07.08.19 15.00	Basis:	Wet Weight
Seq Number:	3094957			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.09.19 09.15	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.09.19 09.15	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.09.19 09.15	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.09.19 09.15	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.09.19 09.15	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.09.19 09.15	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.09.19 09.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	07.09.19 09.15	
4-Bromofluorobenzene	460-00-4	112	%	70-130	07.09.19 09.15	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id: **PH05** Matrix: Soil Date Received:07.02.19 08.05

Lab Sample Id: 629707-010 Date Collected: 06.28.19 14.00 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.03.19 16.00 Basis: Wet Weight

Seq Number: 3094579 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**82.8**	5.00	mg/kg	07.05.19 16.41		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 07.05.19 08.00 Basis: Wet Weight

Seq Number: 3094602 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.19 15.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.19 15.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.05.19 15.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.19 15.28	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.05.19 15.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	07.05.19 15.28	
o-Terphenyl	84-15-1	101	%	70-135	07.05.19 15.28	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-010	Date Collected:	06.28.19 14.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	AMB	Date Prep:	07.08.19 15.00	Basis:	Wet Weight
Seq Number:	3094957			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.09.19 09.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.09.19 09.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.09.19 09.37	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.09.19 09.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.09.19 09.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.09.19 09.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.09.19 09.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	07.09.19 09.37	
4-Bromofluorobenzene	460-00-4	104	%	70-130	07.09.19 09.37	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id: **PH05A** Matrix: Soil Date Received:07.02.19 08.05

Lab Sample Id: 629707-011 Date Collected: 06.28.19 14.10 Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.03.19 16.00 Basis: Wet Weight

Seq Number: 3094579 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**35.4**	5.03	mg/kg	07.05.19 16.48		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 07.05.19 08.00 Basis: Wet Weight

Seq Number: 3094602 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.19 16.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.19 16.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.05.19 16.17	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.19 16.17	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.05.19 16.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	07.05.19 16.17	
o-Terphenyl	84-15-1	90	%	70-135	07.05.19 16.17	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-011	Date Collected:	06.28.19 14.10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	AMB	Date Prep:	07.08.19 15.00	Basis:	Wet Weight
Seq Number:	3094957			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.09.19 11.13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.09.19 11.13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.09.19 11.13	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.09.19 11.13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.09.19 11.13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.09.19 11.13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.09.19 11.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	07.09.19 11.13	
4-Bromofluorobenzene	460-00-4	102	%	70-130	07.09.19 11.13	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH07**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-012	Date Collected:	06.28.19 15.10	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.03.19 16.00	Basis:	Wet Weight
Seq Number:	3094579			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**252**	4.98	mg/kg	07.05.19 17.10		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.05.19 08.00	Basis:	Wet Weight
Seq Number:	3094602			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.05.19 16.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.05.19 16.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	07.05.19 16.42	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.05.19 16.42	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	07.05.19 16.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	07.05.19 16.42	
o-Terphenyl	84-15-1	101	%	70-135	07.05.19 16.42	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH07**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-012	Date Collected:	06.28.19 15.10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	AMB	Date Prep:	07.08.19 15.00	Basis:	Wet Weight
Seq Number:	3094957			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.09.19 11.35	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.09.19 11.35	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.09.19 11.35	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.09.19 11.35	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.09.19 11.35	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.09.19 11.35	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.09.19 11.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	07.09.19 11.35	
4-Bromofluorobenzene	460-00-4	99	%	70-130	07.09.19 11.35	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id: **PH07A** Matrix: Soil Date Received:07.02.19 08.05

Lab Sample Id: 629707-013 Date Collected: 06.28.19 15.15 Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.03.19 16.00 Basis: Wet Weight

Seq Number: 3094579 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**89.6**	4.95	mg/kg	07.05.19 17.17		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 07.05.19 08.00 Basis: Wet Weight

Seq Number: 3094602 SUB: T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.19 17.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.19 17.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.05.19 17.07	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.19 17.07	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.05.19 17.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	07.05.19 17.07	
o-Terphenyl	84-15-1	93	%	70-135	07.05.19 17.07	

Certificate of Analytical Results 629707

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH07A**	Matrix:	Soil	Date Received:	07.02.19 08.05
Lab Sample Id:	629707-013	Date Collected:	06.28.19 15.15	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	AMB	Date Prep:	07.08.19 15.00	Basis:	Wet Weight
Seq Number:	3094957			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.09.19 11.57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.09.19 11.57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.09.19 11.57	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.09.19 11.57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.09.19 11.57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.09.19 11.57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.09.19 11.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	07.09.19 11.57	
1,4-Difluorobenzene	540-36-3	94	%	70-130	07.09.19 11.57	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 629707

LT Environmental, Inc.

PLU CVX JV PC 001H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3094579 Matrix: Solid Date Prep: 07.03.19
MB Sample Id: 7681373-1-BLK LCS Sample Id: 7681373-1-BKS LCSD Sample Id: 7681373-1-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	273	109	273	109	90-110	0	20	mg/kg	07.05.19 14:39	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3094579 Matrix: Soil Date Prep: 07.03.19
Parent Sample Id: 629707-002 MS Sample Id: 629707-002 S MSD Sample Id: 629707-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	114	250	426	125	426	125	90-110	0	20	mg/kg	07.05.19 15:01	X

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3094579 Matrix: Soil Date Prep: 07.03.19
Parent Sample Id: 629707-011 MS Sample Id: 629707-011 S MSD Sample Id: 629707-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	35.4	252	339	120	338	120	90-110	0	20	mg/kg	07.05.19 16:55	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3094602 Matrix: Solid Date Prep: 07.05.19
MB Sample Id: 7681476-1-BLK LCS Sample Id: 7681476-1-BKS LCSD Sample Id: 7681476-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	962	96	1000	100	70-135	4	20	mg/kg	07.05.19 10:09	
Diesel Range Organics (DRO)	<8.13	1000	1060	106	1090	109	70-135	3	20	mg/kg	07.05.19 10:09	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		75		80		70-135	%	07.05.19 10:09
o-Terphenyl	103		77		88		70-135	%	07.05.19 10:09

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 629707

LT Environmental, Inc.

PLU CVX JV PC 001H

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3094602 Matrix: Soil Date Prep: 07.05.19
Parent Sample Id: 629707-001 MS Sample Id: 629707-001 S MSD Sample Id: 629707-001 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)	9.05	999	1160	115	1210	120	70-135	4	20	mg/kg	07.05.19 11:25	
Diesel Range Organics (DRO)	8.81	999	1230	122	1280	127	70-135	4	20	mg/kg	07.05.19 11:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		105		70-135	%	07.05.19 11:25
o-Terphenyl	108		111		70-135	%	07.05.19 11:25

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3094957 Matrix: Solid Date Prep: 07.08.19
MB Sample Id: 7681583-1-BLK LCS Sample Id: 7681583-1-BKS LCSD Sample Id: 7681583-1-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	0.0843	85	0.0920	92	70-130	9	35	mg/kg	07.09.19 04:01	
Toluene	<0.00199	0.0994	0.0821	83	0.0861	86	70-130	5	35	mg/kg	07.09.19 04:01	
Ethylbenzene	<0.00199	0.0994	0.0901	91	0.0953	95	70-130	6	35	mg/kg	07.09.19 04:01	
m,p-Xylenes	<0.00398	0.199	0.180	90	0.190	95	70-130	5	35	mg/kg	07.09.19 04:01	
o-Xylene	<0.00199	0.0994	0.0856	86	0.0913	91	70-130	6	35	mg/kg	07.09.19 04:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		93		96		70-130	%	07.09.19 04:01
4-Bromofluorobenzene	100		103		109		70-130	%	07.09.19 04:01

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3094957 Matrix: Soil Date Prep: 07.08.19
Parent Sample Id: 629707-001 MS Sample Id: 629707-001 S MSD Sample Id: 629707-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0779	78	0.0746	74	70-130	4	35	mg/kg	07.09.19 04:45	
Toluene	<0.00200	0.0998	0.0757	76	0.0732	72	70-130	3	35	mg/kg	07.09.19 04:45	
Ethylbenzene	<0.00200	0.0998	0.0815	82	0.0791	78	70-130	3	35	mg/kg	07.09.19 04:45	
m,p-Xylenes	<0.00399	0.200	0.163	82	0.157	78	70-130	4	35	mg/kg	07.09.19 04:45	
o-Xylene	<0.00200	0.0998	0.0801	80	0.0748	74	70-130	7	35	mg/kg	07.09.19 04:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	07.09.19 04:45
4-Bromofluorobenzene	122		124		70-130	%	07.09.19 04:45

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

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

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

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

Chain of Custody

Work Order No: 629707

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:	bbelill@ltenv.com

Work Order Comments

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

Project Name:	PLUCUK+VPC 001H	Turn Around	
Project Number:	2RP-3813, 2RP-3180	Routine	☒
P.O. Number:	0129191135	Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	(Yes) No	
Temperature (°C):	5.2	Thermometer ID	TNH007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:	13	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
PH01	S	6/28/19	1210	2'	1	X	X	X
PH01A			1215	4'		X	X	X
PH01B			1220	5.5'		X	X	X
PH02			1230	2'		X	X	X
PH02A			1245	4'		X	X	X
PH03			1300	2'		X	X	X
PH03A			1320	4'		X	X	X
PH04			1340	2'		X	X	X
PH04A			1350	4'		X	X	X
PH05	↓	↓	1400	2'	↓	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		070219 0805	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: 629707

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:		bbelill@ltenv.com

Work Order Comments

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

Project Name:	PLU CVX JV PC 001H	Turn Around	
Project Number:	2RP-3813, 2RP-3150	Routine	☒
P.O. Number:	0129191135	Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
PH05A	S	6/28/19	1410	4'	1	X	X	X
PH07			1510	2'	1	X	X	X
PH07A			1515	4'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		07-02-19 0800	2		
			4		
			6		

Inter-Office Shipment

IOS Number **42703**

Date/Time: 07/02/19 09:55
Created by: Elizabeth Mcclellan
Please send report to: Jessica Kramer

Lab# From: **Carlsbad**
Delivery Priority:
Address: 1089 N Canal Street

Lab# To: **Midland**
Air Bill No.: 775624086614
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
629707-001	S	PH01	06/28/19 12:10	E300_CL	Chloride by EPA 300	07/09/19	12/25/19	JKR	CL	
629707-001	S	PH01	06/28/19 12:10	SW8021B	BTEX by EPA 8021B	07/09/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629707-001	S	PH01	06/28/19 12:10	SW8015MOD_NM	TPH by SW8015 Mod	07/09/19	07/12/19	JKR	GRO-DRO PHCC10C28 PI	
629707-002	S	PH01A	06/28/19 12:15	E300_CL	Chloride by EPA 300	07/09/19	12/25/19	JKR	CL	
629707-002	S	PH01A	06/28/19 12:15	SW8021B	BTEX by EPA 8021B	07/09/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629707-002	S	PH01A	06/28/19 12:15	SW8015MOD_NM	TPH by SW8015 Mod	07/09/19	07/12/19	JKR	GRO-DRO PHCC10C28 PI	
629707-003	S	PH01B	06/28/19 12:20	SW8021B	BTEX by EPA 8021B	07/09/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629707-003	S	PH01B	06/28/19 12:20	SW8015MOD_NM	TPH by SW8015 Mod	07/09/19	07/12/19	JKR	GRO-DRO PHCC10C28 PI	
629707-003	S	PH01B	06/28/19 12:20	E300_CL	Chloride by EPA 300	07/09/19	12/25/19	JKR	CL	
629707-004	S	PH02	06/28/19 12:30	SW8015MOD_NM	TPH by SW8015 Mod	07/09/19	07/12/19	JKR	GRO-DRO PHCC10C28 PI	
629707-004	S	PH02	06/28/19 12:30	SW8021B	BTEX by EPA 8021B	07/09/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629707-004	S	PH02	06/28/19 12:30	E300_CL	Chloride by EPA 300	07/09/19	12/25/19	JKR	CL	
629707-005	S	PH02A	06/28/19 12:45	SW8021B	BTEX by EPA 8021B	07/09/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629707-005	S	PH02A	06/28/19 12:45	E300_CL	Chloride by EPA 300	07/09/19	12/25/19	JKR	CL	
629707-005	S	PH02A	06/28/19 12:45	SW8015MOD_NM	TPH by SW8015 Mod	07/09/19	07/12/19	JKR	GRO-DRO PHCC10C28 PI	
629707-006	S	PH03	06/28/19 13:00	E300_CL	Chloride by EPA 300	07/09/19	12/25/19	JKR	CL	
629707-006	S	PH03	06/28/19 13:00	SW8021B	BTEX by EPA 8021B	07/09/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629707-006	S	PH03	06/28/19 13:00	SW8015MOD_NM	TPH by SW8015 Mod	07/09/19	07/12/19	JKR	GRO-DRO PHCC10C28 PI	
629707-007	S	PH03A	06/28/19 13:20	E300_CL	Chloride by EPA 300	07/09/19	12/25/19	JKR	CL	
629707-007	S	PH03A	06/28/19 13:20	SW8015MOD_NM	TPH by SW8015 Mod	07/09/19	07/12/19	JKR	GRO-DRO PHCC10C28 PI	
629707-007	S	PH03A	06/28/19 13:20	SW8021B	BTEX by EPA 8021B	07/09/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629707-008	S	PH04	06/28/19 13:40	SW8015MOD_NM	TPH by SW8015 Mod	07/09/19	07/12/19	JKR	GRO-DRO PHCC10C28 PI	
629707-008	S	PH04	06/28/19 13:40	SW8021B	BTEX by EPA 8021B	07/09/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629707-008	S	PH04	06/28/19 13:40	E300_CL	Chloride by EPA 300	07/09/19	12/25/19	JKR	CL	
629707-009	S	PH04A	06/28/19 13:50	E300_CL	Chloride by EPA 300	07/09/19	12/25/19	JKR	CL	

Inter-Office Shipment

IOS Number **42703**

Date/Time: 07/02/19 09:55
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 775624086614

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
629707-009	S	PH04A	06/28/19 13:50	SW8015MOD_NM	TPH by SW8015 Mod	07/09/19	07/12/19	JKR	GRO-DRO PHCC10C28 PI	
629707-009	S	PH04A	06/28/19 13:50	SW8021B	BTEX by EPA 8021B	07/09/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629707-010	S	PH05	06/28/19 14:00	SW8021B	BTEX by EPA 8021B	07/09/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629707-010	S	PH05	06/28/19 14:00	E300_CL	Chloride by EPA 300	07/09/19	12/25/19	JKR	CL	
629707-010	S	PH05	06/28/19 14:00	SW8015MOD_NM	TPH by SW8015 Mod	07/09/19	07/12/19	JKR	GRO-DRO PHCC10C28 PI	
629707-011	S	PH05A	06/28/19 14:10	SW8015MOD_NM	TPH by SW8015 Mod	07/09/19	07/12/19	JKR	GRO-DRO PHCC10C28 PI	
629707-011	S	PH05A	06/28/19 14:10	E300_CL	Chloride by EPA 300	07/09/19	12/25/19	JKR	CL	
629707-011	S	PH05A	06/28/19 14:10	SW8021B	BTEX by EPA 8021B	07/09/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629707-012	S	PH07	06/28/19 15:10	SW8021B	BTEX by EPA 8021B	07/09/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	
629707-012	S	PH07	06/28/19 15:10	SW8015MOD_NM	TPH by SW8015 Mod	07/09/19	07/12/19	JKR	GRO-DRO PHCC10C28 PI	
629707-012	S	PH07	06/28/19 15:10	E300_CL	Chloride by EPA 300	07/09/19	12/25/19	JKR	CL	
629707-013	S	PH07A	06/28/19 15:15	SW8015MOD_NM	TPH by SW8015 Mod	07/09/19	07/12/19	JKR	GRO-DRO PHCC10C28 PI	
629707-013	S	PH07A	06/28/19 15:15	E300_CL	Chloride by EPA 300	07/09/19	12/25/19	JKR	CL	
629707-013	S	PH07A	06/28/19 15:15	SW8021B	BTEX by EPA 8021B	07/09/19	07/12/19	JKR	BR4FBZ BZ BZME EBZ X	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 07/02/2019

Received By: Brianna Teel

Date Received: 07/03/2019 11:28

Cooler Temperature: 0.4

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 42703

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

Sent By: Elizabeth McClellan **Date Sent:** 07/02/2019 09:55 AM

Received By: Brianna Teel **Date Received:** 07/03/2019 11:28 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.4	
#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: 07/03/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07/02/2019 08:05:00 AM

Work Order #: 629707

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)?	5.2	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 Custody Seals intact on sample bottles?	**No**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Subbed to Xenco 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: 07/02/2019

Checklist reviewed by: Jessica Kramer Date: 07/03/2019

Analytical Report 629690

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU CVX JV PC 001H

2RP-3813,2RP-3180

05-JUL-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

05-JUL-19

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

Reference: XENCO Report No(s): **629690**
PLU CVX JV PC 001H
Project Address: Delaware Basin

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) 629690. 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. 629690 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,

Kalei Stout
Midland Laboratory Director

Sample Cross Reference 629690

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH06	S	06-28-19 14:45	2 ft	629690-001
PH06A	S	06-28-19 14:50	4 ft	629690-002
PH06B	S	06-28-19 15:00	6 ft	629690-003

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV PC 001H

Project ID: *2RP-3813,2RP-3180*
Work Order Number(s): *629690*

Report Date: *05-JUL-19*
Date Received: *07/02/2019*

Sample receipt non conformances and comments:

07/05/19: revised report to correct sample prep and analyzed date for chlorides.

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3094254 Chloride by EPA 300
Lab Sample ID 629704-009 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: 629690-001, -002, -003.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3094305 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 629690

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV PC 001H

Project Id: 2RP-3813,2RP-3180
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Tue Jul-02-19 11:59 am
Report Date: 05-JUL-19
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	629690-001		629690-002		629690-003					
	Field Id:	PH06		PH06A		PH06B					
	Depth:	2- ft		4- ft		6- ft					
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	Jun-28-19 14:45		Jun-28-19 14:50		Jun-28-19 15:00					
BTEX by EPA 8021B	***Extracted:***	Jul-02-19 18:00		Jul-02-19 18:00		Jul-02-19 18:00					
	Analyzed:	Jul-03-19 04:18		Jul-03-19 04:40		Jul-03-19 05:02					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00197	0.00197				
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00197	0.00197				
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00197	0.00197				
m,p-Xylenes		<0.00400	0.00400	<0.00400	0.00400	<0.00394	0.00394				
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00197	0.00197				
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00197	0.00197				
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00197	0.00197				
Chloride by EPA 300	***Extracted:***	Jul-02-19 16:50		Jul-02-19 16:50		Jul-02-19 16:50					
	Analyzed:	Jul-02-19 17:05		Jul-02-19 17:19		Jul-02-19 17:24					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		607	5.02	565	4.98	78.7	5.00				
TPH by SW8015 Mod	***Extracted:***	Jul-02-19 14:00		Jul-02-19 14:00		Jul-02-19 14:00					
	Analyzed:	Jul-03-19 04:47		Jul-03-19 05:11		Jul-03-19 05:35					
	Units/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				
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0				
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0				
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<15.0	15.0				

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

Kalei Stout
Midland Laboratory Director

Certificate of Analytical Results 629690

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	07.02.19 11.59
Lab Sample Id:	629690-001	Date Collected:	06.28.19 14.45	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.02.19 16.50	Basis:	Wet Weight
Seq Number:	3094254				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**607**	5.02	mg/kg	07.02.19 17.05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.02.19 14.00	Basis:	Wet Weight
Seq Number:	3094321				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.03.19 04.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.03.19 04.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.03.19 04.47	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.03.19 04.47	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.03.19 04.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	07.03.19 04.47	
o-Terphenyl	84-15-1	86	%	70-135	07.03.19 04.47	

Certificate of Analytical Results 629690

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	07.02.19 11.59
Lab Sample Id:	629690-001	Date Collected:	06.28.19 14.45	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	FOV			% Moisture:	
Analyst:	FOV	Date Prep:	07.02.19 18.00	Basis:	Wet Weight
Seq Number:	3094305				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.03.19 04.18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.03.19 04.18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.03.19 04.18	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.03.19 04.18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.03.19 04.18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.03.19 04.18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.03.19 04.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	07.03.19 04.18	
4-Bromofluorobenzene	460-00-4	109	%	70-130	07.03.19 04.18	

Certificate of Analytical Results 629690

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	07.02.19 11.59
Lab Sample Id:	629690-002	Date Collected:	06.28.19 14.50	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.02.19 16.50	Basis:	Wet Weight
Seq Number:	3094254				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**565**	4.98	mg/kg	07.02.19 17.19		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.02.19 14.00	Basis:	Wet Weight
Seq Number:	3094321				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.03.19 05.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.03.19 05.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.03.19 05.11	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.03.19 05.11	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.03.19 05.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	07.03.19 05.11	
o-Terphenyl	84-15-1	97	%	70-135	07.03.19 05.11	

Certificate of Analytical Results 629690

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	07.02.19 11.59
Lab Sample Id:	629690-002	Date Collected:	06.28.19 14.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	FOV			% Moisture:	
Analyst:	FOV	Date Prep:	07.02.19 18.00	Basis:	Wet Weight
Seq Number:	3094305				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.03.19 04.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.03.19 04.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.03.19 04.40	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.03.19 04.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.03.19 04.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.03.19 04.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.03.19 04.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	07.03.19 04.40	
4-Bromofluorobenzene	460-00-4	108	%	70-130	07.03.19 04.40	

Certificate of Analytical Results 629690

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH06B**	Matrix:	Soil	Date Received:	07.02.19 11.59
Lab Sample Id:	629690-003	Date Collected:	06.28.19 15.00	Sample Depth:	6 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	07.02.19 16.50	Basis:	Wet Weight
Seq Number:	3094254				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**78.7**	5.00	mg/kg	07.02.19 17.24		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.02.19 14.00	Basis:	Wet Weight
Seq Number:	3094321				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.03.19 05.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.03.19 05.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.03.19 05.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.03.19 05.35	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.03.19 05.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	07.03.19 05.35	
o-Terphenyl	84-15-1	91	%	70-135	07.03.19 05.35	

Certificate of Analytical Results 629690

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH06B**	Matrix:	Soil	Date Received:	07.02.19 11.59
Lab Sample Id:	629690-003	Date Collected:	06.28.19 15.00	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	FOV			% Moisture:	
Analyst:	FOV	Date Prep:	07.02.19 18.00	Basis:	Wet Weight
Seq Number:	3094305				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00197	0.00197	mg/kg	07.03.19 05.02	U	1
Toluene	108-88-3	<0.00197	0.00197	mg/kg	07.03.19 05.02	U	1
Ethylbenzene	100-41-4	<0.00197	0.00197	mg/kg	07.03.19 05.02	U	1
m,p-Xylenes	179601-23-1	<0.00394	0.00394	mg/kg	07.03.19 05.02	U	1
o-Xylene	95-47-6	<0.00197	0.00197	mg/kg	07.03.19 05.02	U	1
Total Xylenes	1330-20-7	<0.00197	0.00197	mg/kg	07.03.19 05.02	U	1
Total BTEX		<0.00197	0.00197	mg/kg	07.03.19 05.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	07.03.19 05.02	
1,4-Difluorobenzene	540-36-3	92	%	70-130	07.03.19 05.02	

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 629690

LT Environmental, Inc.

PLU CVX JV PC 001H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3094254 Matrix: Solid Date Prep: 07.02.19
MB Sample Id: 7681263-1-BLK LCS Sample Id: 7681263-1-BKS LCSD Sample Id: 7681263-1-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	250	100	249	100	90-110	0	20	mg/kg	07.02.19 16:55	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3094254 Matrix: Soil Date Prep: 07.02.19
Parent Sample Id: 629690-001 MS Sample Id: 629690-001 S MSD Sample Id: 629690-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	607	251	798	76	796	75	90-110	0	20	mg/kg	07.02.19 17:09	X

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3094254 Matrix: Soil Date Prep: 07.02.19
Parent Sample Id: 629704-009 MS Sample Id: 629704-009 S MSD Sample Id: 629704-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	527	249	740	86	740	86	90-110	0	20	mg/kg	07.02.19 18:17	X

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3094321 Matrix: Solid Date Prep: 07.02.19
MB Sample Id: 7681279-1-BLK LCS Sample Id: 7681279-1-BKS LCSD Sample Id: 7681279-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	965	97	1030	103	70-135	7	20	mg/kg	07.02.19 21:03	
Diesel Range Organics (DRO)	<8.13	1000	1020	102	1120	112	70-135	9	20	mg/kg	07.02.19 21:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		90		92		70-135	%	07.02.19 21:03
o-Terphenyl	107		93		100		70-135	%	07.02.19 21:03

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

QC Summary 629690

LT Environmental, Inc.

PLU CVX JV PC 001H

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3094321 | Matrix: Soil | Date Prep: 07.02.19
Parent Sample Id: 629602-001 | MS Sample Id: 629602-001 S | MSD Sample Id: 629602-001 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)	11.5	997	988	98	996	99	70-135	1	20	mg/kg	07.02.19 22:17	
Diesel Range Organics (DRO)	11.5	997	1100	109	1040	103	70-135	6	20	mg/kg	07.02.19 22:17	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	85		85		70-135	%	07.02.19 22:17
o-Terphenyl	95		89		70-135	%	07.02.19 22:17

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3094305 | Matrix: Solid | Date Prep: 07.02.19
MB Sample Id: 7681305-1-BLK | LCS Sample Id: 7681305-1-BKS | LCSD Sample Id: 7681305-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0909	91	0.0923	93	70-130	2	35	mg/kg	07.03.19 00:57	
Toluene	<0.00200	0.0998	0.0896	90	0.0892	90	70-130	0	35	mg/kg	07.03.19 00:57	
Ethylbenzene	<0.00200	0.0998	0.100	100	0.102	103	70-130	2	35	mg/kg	07.03.19 00:57	
m,p-Xylenes	<0.00399	0.200	0.203	102	0.203	103	70-130	0	35	mg/kg	07.03.19 00:57	
o-Xylene	<0.00200	0.0998	0.0953	95	0.0963	97	70-130	1	35	mg/kg	07.03.19 00:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		97		95		70-130	%	07.03.19 00:57
4-Bromofluorobenzene	97		111		107		70-130	%	07.03.19 00:57

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3094305 | Matrix: Soil | Date Prep: 07.02.19
Parent Sample Id: 629696-001 | MS Sample Id: 629696-001 S | MSD Sample Id: 629696-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00197	0.0986	0.0789	80	0.0875	89	70-130	10	35	mg/kg	07.03.19 01:41	
Toluene	<0.00197	0.0986	0.0758	77	0.0868	88	70-130	14	35	mg/kg	07.03.19 01:41	
Ethylbenzene	<0.00197	0.0986	0.0861	87	0.0988	100	70-130	14	35	mg/kg	07.03.19 01:41	
m,p-Xylenes	<0.00394	0.197	0.172	87	0.201	102	70-130	16	35	mg/kg	07.03.19 01:41	
o-Xylene	<0.00197	0.0986	0.0841	85	0.0933	94	70-130	10	35	mg/kg	07.03.19 01:41	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		96		70-130	%	07.03.19 01:41
4-Bromofluorobenzene	117		118		70-130	%	07.03.19 01:41

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

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

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

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

Chain of Custody

Work Order No: 1929690

XENCO LABORATORIES

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

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
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:		bbelill@ltenv.com

Work Order Comments

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

Project Name:	PLU CUX JV PC 001H	Turn Around	
Project Number:	2RP-3813, 2RP-3180	Routine ☐	
P.O. Number:	01291A135	Rush: 24hr	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.8/0.6	Thermometer ID		
Received Intact:	(Yes) No		NB	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH06	S	6/28/19	14:45	2'	1	X	X	X
PH06A	↓	↓	14:50	4'	↓	X	X	X
PH06B	↓	↓	15:00	6'	↓	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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			7/1/19 @ 12:50	2	Fed Ex	7/1/19 14:00
3				4		1159 7/2/19
5				6		

Revised Date 051418 Rev. 2018.1

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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07/02/2019 11:59:00 AM

Work Order #: 629690

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)?	.6
#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: 07/02/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 07/02/2019

Jessica Kramer

Analytical Report 629984

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU CVX JV PC 001H

012919135

15-JUL-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

15-JUL-19

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

Reference: XENCO Report No(s): **629984**
PLU CVX JV PC 001H
Project Address: Delaware Basin

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) 629984. 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. 629984 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 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	07-03-19 09:20	0 - 4 ft	629984-001
SW02	S	07-03-19 09:25	0 - 4 ft	629984-002
SW03	S	07-03-19 09:35	0 - 4 ft	629984-003
SW04	S	07-03-19 09:45	0 - 4 ft	629984-004
SW05	S	07-03-19 09:50	0 - 4 ft	629984-005
PH08	S	07-03-19 10:40	6 - 0 ft	629984-006
PH08A	S	07-03-19 10:50	8 - 0 ft	629984-007
PH09	S	07-03-19 11:00	6 - 0 ft	629984-008
FS01	S	07-03-19 11:45	4 - 0 ft	629984-009
FS02	S	07-03-19 11:50	4 - 0 ft	629984-010
FS03	S	07-03-19 11:55	4 - 0 ft	629984-011
FS04	S	07-03-19 12:00	4 - 0 ft	629984-012
FS05	S	07-03-19 12:05	4 - 0 ft	629984-013
FS06	S	07-03-19 12:10	4 - 0 ft	629984-014

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU CVX JV PC 001H

Project ID: *012919135*
Work Order Number(s): *629984*

Report Date: *15-JUL-19*
Date Received: *07/03/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3094952 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3094964 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 629984

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV PC 001H

Project Id: 012919135
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Wed Jul-03-19 04:10 pm
Report Date: 15-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	629984-001		629984-002		629984-003		629984-004		629984-005		629984-006	
	Field Id:	SW01		SW02		SW03		SW04		SW05		PH08	
	Depth:	0-4 ft		0-4 ft		0-4 ft		0-4 ft		0-4 ft		6-0 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-03-19 09:20		Jul-03-19 09:25		Jul-03-19 09:35		Jul-03-19 09:45		Jul-03-19 09:50		Jul-03-19 10:40	
BTEX by EPA 8021B SUB: T104704400-18-16	*Extracted:*	Jul-09-19 11:15		Jul-09-19 11:15		Jul-09-19 11:15		Jul-09-19 11:15		Jul-09-19 11:15		Jul-09-19 11:15	
	Analyzed:	Jul-10-19 08:30		Jul-10-19 08:53		Jul-10-19 09:16		Jul-10-19 09:40		Jul-10-19 10:03		Jul-10-19 10:26	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		<0.00402	0.00402	<0.00399	0.00399	<0.00398	0.00398	<0.00401	0.00401	<0.00400	0.00400	<0.00398	0.00398
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Chloride by EPA 300 SUB: T104704400-18-16	*Extracted:*	Jul-09-19 13:00		Jul-09-19 13:00		Jul-09-19 13:00		Jul-09-19 13:00		Jul-09-19 13:00		Jul-09-19 13:00	
	Analyzed:	Jul-09-19 14:12		Jul-09-19 14:33		Jul-09-19 14:41		Jul-09-19 14:48		Jul-09-19 14:55		Jul-09-19 15:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		342	5.04	285	5.01	226	5.03	19.9	5.03	122	5.00	791	4.97
TPH by SW8015 Mod SUB: T104704400-18-16	*Extracted:*	Jul-14-19 10:00		Jul-14-19 10:00		Jul-14-19 10:00		Jul-14-19 10:00		Jul-14-19 10:00		Jul-14-19 10:00	
	Analyzed:	Jul-14-19 22:05		Jul-14-19 23:18		Jul-14-19 23:42		Jul-15-19 00:06		Jul-15-19 00:30		Jul-15-19 00:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 629984

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV PC 001H

Project Id: 012919135
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Wed Jul-03-19 04:10 pm
Report Date: 15-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	629984-007		629984-008		629984-009		629984-010		629984-011		629984-012	
	Field Id:	PH08A		PH09		FS01		FS02		FS03		FS04	
	Depth:	8-0 ft		6-0 ft		4-0 ft		4-0 ft		4-0 ft		4-0 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-03-19 10:50		Jul-03-19 11:00		Jul-03-19 11:45		Jul-03-19 11:50		Jul-03-19 11:55		Jul-03-19 12:00	
BTEX by EPA 8021B SUB: T104704400-18-16	*Extracted:*	Jul-09-19 13:45		Jul-09-19 13:45		Jul-09-19 13:45		Jul-09-19 13:45		Jul-09-19 13:45		Jul-09-19 13:45	
	Analyzed:	Jul-10-19 11:37		Jul-11-19 12:00		Jul-11-19 12:22		Jul-11-19 12:44		Jul-11-19 01:07		Jul-11-19 01:29	
	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	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199
m,p-Xylenes		<0.00401	0.00401	<0.00398	0.00398	<0.00402	0.00402	<0.00400	0.00400	<0.00397	0.00397	<0.00398	0.00398
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199
Chloride by EPA 300 SUB: T104704400-18-16	*Extracted:*	Jul-09-19 13:00		Jul-09-19 13:00		Jul-09-19 13:00		Jul-09-19 13:00		Jul-09-19 13:00		Jul-09-19 13:00	
	Analyzed:	Jul-09-19 15:24		Jul-09-19 15:31		Jul-09-19 15:39		Jul-09-19 15:46		Jul-09-19 16:15		Jul-09-19 16:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		46.3	5.01	113	5.00	2110	25.0	2260	25.0	2450	24.8	1130	4.99
TPH by SW8015 Mod SUB: T104704400-18-16	*Extracted:*	Jul-14-19 10:00		Jul-14-19 10:00		Jul-14-19 10:00		Jul-14-19 10:00		Jul-14-19 10:00		Jul-14-19 10:00	
	Analyzed:	Jul-15-19 01:19		Jul-15-19 01:43		Jul-15-19 02:07		Jul-15-19 02:31		Jul-15-19 03:19		Jul-15-19 03:42	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total GRO-DRO		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 629984

LT Environmental, Inc., Arvada, CO

Project Name: PLU CVX JV PC 001H

Project Id: 012919135
Contact: Dan Moir
Project Location: Delaware Basin

Date Received in Lab: Wed Jul-03-19 04:10 pm
Report Date: 15-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	629984-013				629984-014							
	Field Id:	FS05				FS06							
	Depth:	4-0 ft				4-0 ft							
	Matrix:	SOIL				SOIL							
	Sampled:	Jul-03-19 12:05				Jul-03-19 12:10							
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-09-19 13:45				Jul-09-19 13:45							
	Analyzed:	Jul-11-19 01:51				Jul-11-19 02:13							
	Units/RL:	mg/kg	RL			mg/kg	RL						
Benzene		<0.00202	0.00202			<0.00200	0.00200						
Toluene		<0.00202	0.00202			<0.00200	0.00200						
Ethylbenzene		<0.00202	0.00202			<0.00200	0.00200						
m,p-Xylenes		<0.00403	0.00403			<0.00400	0.00400						
o-Xylene		<0.00202	0.00202			<0.00200	0.00200						
Total Xylenes		<0.00202	0.00202			<0.00200	0.00200						
Total BTEX		<0.00202	0.00202			<0.00200	0.00200						
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jul-09-19 13:00				Jul-09-19 13:00							
	Analyzed:	Jul-09-19 17:35				Jul-09-19 17:42							
	Units/RL:	mg/kg	RL			mg/kg	RL						
Chloride		881	4.97			2110	24.8						
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-14-19 10:00				Jul-14-19 10:00							
	Analyzed:	Jul-15-19 04:06				Jul-15-19 04:30							
	Units/RL:	mg/kg	RL			mg/kg	RL						
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0			<15.0	15.0						
Diesel Range Organics (DRO)		<15.0	15.0			<15.0	15.0						
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0			<15.0	15.0						
Total TPH		<15.0	15.0			<15.0	15.0						
Total GRO-DRO		<15.0	15.0			<15.0	15.0						

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-001	Date Collected:	07.03.19 09.20	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.09.19 13.00	Basis:	Wet Weight
Seq Number:	3094870			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**342**	5.04	mg/kg	07.09.19 14.12		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.14.19 10.00	Basis:	Wet Weight
Seq Number:	3095302			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.14.19 22.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.14.19 22.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.14.19 22.05	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.14.19 22.05	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.14.19 22.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	07.14.19 22.05	
o-Terphenyl	84-15-1	104	%	70-135	07.14.19 22.05	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-001	Date Collected:	07.03.19 09.20	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	FOV	Date Prep:	07.09.19 11.15	Basis:	Wet Weight
Seq Number:	3094952			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.10.19 08.30	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.10.19 08.30	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.10.19 08.30	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.10.19 08.30	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.10.19 08.30	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.10.19 08.30	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.10.19 08.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	07.10.19 08.30	
1,4-Difluorobenzene	540-36-3	87	%	70-130	07.10.19 08.30	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-002	Date Collected:	07.03.19 09.25	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.09.19 13.00	Basis:	Wet Weight
Seq Number:	3094870			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**285**	5.01	mg/kg	07.09.19 14.33		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.14.19 10.00	Basis:	Wet Weight
Seq Number:	3095302			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.14.19 23.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.14.19 23.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.14.19 23.18	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.14.19 23.18	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.14.19 23.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	07.14.19 23.18	
o-Terphenyl	84-15-1	112	%	70-135	07.14.19 23.18	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-002	Date Collected:	07.03.19 09.25	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	FOV	Date Prep:	07.09.19 11.15	Basis:	Wet Weight
Seq Number:	3094952			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.10.19 08.53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.10.19 08.53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.10.19 08.53	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.10.19 08.53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.10.19 08.53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.10.19 08.53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.10.19 08.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	07.10.19 08.53	
1,4-Difluorobenzene	540-36-3	93	%	70-130	07.10.19 08.53	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-003	Date Collected:	07.03.19 09.35	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.09.19 13.00	Basis:	Wet Weight
Seq Number:	3094870			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**226**	5.03	mg/kg	07.09.19 14.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.14.19 10.00	Basis:	Wet Weight
Seq Number:	3095302			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.14.19 23.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.14.19 23.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.14.19 23.42	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.14.19 23.42	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.14.19 23.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	07.14.19 23.42	
o-Terphenyl	84-15-1	91	%	70-135	07.14.19 23.42	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-003	Date Collected:	07.03.19 09.35	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	FOV	Date Prep:	07.09.19 11.15	Basis:	Wet Weight
Seq Number:	3094952			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.10.19 09.16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.10.19 09.16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.10.19 09.16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.10.19 09.16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.10.19 09.16	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.10.19 09.16	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.10.19 09.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	07.10.19 09.16	
1,4-Difluorobenzene	540-36-3	93	%	70-130	07.10.19 09.16	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-004	Date Collected:	07.03.19 09.45	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.09.19 13.00	Basis:	Wet Weight
Seq Number:	3094870			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**19.9**	5.03	mg/kg	07.09.19 14.48		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.14.19 10.00	Basis:	Wet Weight
Seq Number:	3095302			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.15.19 00.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.15.19 00.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.15.19 00.06	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.15.19 00.06	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.15.19 00.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	07.15.19 00.06	
o-Terphenyl	84-15-1	113	%	70-135	07.15.19 00.06	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-004	Date Collected:	07.03.19 09.45	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	FOV	Date Prep:	07.09.19 11.15	Basis:	Wet Weight
Seq Number:	3094952			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.10.19 09.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.10.19 09.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.10.19 09.40	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.10.19 09.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.10.19 09.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.10.19 09.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.10.19 09.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	07.10.19 09.40	
1,4-Difluorobenzene	540-36-3	91	%	70-130	07.10.19 09.40	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-005	Date Collected:	07.03.19 09.50	Sample Depth:	0 - 4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.09.19 13.00	Basis:	Wet Weight
Seq Number:	3094870			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**122**	5.00	mg/kg	07.09.19 14.55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.14.19 10.00	Basis:	Wet Weight
Seq Number:	3095302			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.15.19 00.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.15.19 00.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.15.19 00.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.15.19 00.30	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.15.19 00.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	07.15.19 00.30	
o-Terphenyl	84-15-1	106	%	70-135	07.15.19 00.30	

Certificate of Analytical Results 629984

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Sample Id:	**SW05**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-005	Date Collected:	07.03.19 09.50	Sample Depth:	0 - 4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	FOV	Date Prep:	07.09.19 11.15	Basis:	Wet Weight
Seq Number:	3094952			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.10.19 10.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.10.19 10.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.10.19 10.03	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.10.19 10.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.10.19 10.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.10.19 10.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.10.19 10.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	07.10.19 10.03	
1,4-Difluorobenzene	540-36-3	90	%	70-130	07.10.19 10.03	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH08**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-006	Date Collected:	07.03.19 10.40	Sample Depth:	6 - 0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.09.19 13.00	Basis:	Wet Weight
Seq Number:	3094870			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**791**	4.97	mg/kg	07.09.19 15.17		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.14.19 10.00	Basis:	Wet Weight
Seq Number:	3095302			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.15.19 00.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.15.19 00.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.15.19 00.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.15.19 00.55	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.15.19 00.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	07.15.19 00.55	
o-Terphenyl	84-15-1	93	%	70-135	07.15.19 00.55	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH08**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-006	Date Collected:	07.03.19 10.40	Sample Depth:	6 - 0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	FOV	Date Prep:	07.09.19 11.15	Basis:	Wet Weight
Seq Number:	3094952			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.10.19 10.26	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.10.19 10.26	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.10.19 10.26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.10.19 10.26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.10.19 10.26	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.10.19 10.26	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.10.19 10.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	07.10.19 10.26	
4-Bromofluorobenzene	460-00-4	113	%	70-130	07.10.19 10.26	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH08A**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-007	Date Collected:	07.03.19 10.50	Sample Depth:	8 - 0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.09.19 13.00	Basis:	Wet Weight
Seq Number:	3094870			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**46.3**	5.01	mg/kg	07.09.19 15.24		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.14.19 10.00	Basis:	Wet Weight
Seq Number:	3095302			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.15.19 01.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.15.19 01.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.15.19 01.19	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.15.19 01.19	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.15.19 01.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	07.15.19 01.19	
o-Terphenyl	84-15-1	84	%	70-135	07.15.19 01.19	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH08A**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-007	Date Collected:	07.03.19 10.50	Sample Depth:	8 - 0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	FOV	Date Prep:	07.09.19 13.45	Basis:	Wet Weight
Seq Number:	3094964			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.10.19 11.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.10.19 11.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.10.19 11.37	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.10.19 11.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.10.19 11.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.10.19 11.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.10.19 11.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	07.10.19 11.37	
4-Bromofluorobenzene	460-00-4	120	%	70-130	07.10.19 11.37	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH09**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-008	Date Collected:	07.03.19 11.00	Sample Depth:	6 - 0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.09.19 13.00	Basis:	Wet Weight
Seq Number:	3094870			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**113**	5.00	mg/kg	07.09.19 15.31		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.14.19 10.00	Basis:	Wet Weight
Seq Number:	3095302			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.15.19 01.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.15.19 01.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.15.19 01.43	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.15.19 01.43	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.15.19 01.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	07.15.19 01.43	
o-Terphenyl	84-15-1	91	%	70-135	07.15.19 01.43	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**PH09**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-008	Date Collected:	07.03.19 11.00	Sample Depth:	6 - 0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	FOV	Date Prep:	07.09.19 13.45	Basis:	Wet Weight
Seq Number:	3094964			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.11.19 12.00	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.11.19 12.00	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.11.19 12.00	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.11.19 12.00	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.11.19 12.00	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.11.19 12.00	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.11.19 12.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	07.11.19 12.00	
1,4-Difluorobenzene	540-36-3	95	%	70-130	07.11.19 12.00	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-009	Date Collected:	07.03.19 11.45	Sample Depth:	4 - 0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.09.19 13.00	Basis:	Wet Weight
Seq Number:	3094870			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2110**	25.0	mg/kg	07.09.19 15.39		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.14.19 10.00	Basis:	Wet Weight
Seq Number:	3095302			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.15.19 02.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.15.19 02.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	07.15.19 02.07	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.15.19 02.07	U	1
Total GRO-DRO	PHC628	<14.9	14.9	mg/kg	07.15.19 02.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	07.15.19 02.07	
o-Terphenyl	84-15-1	105	%	70-135	07.15.19 02.07	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-009	Date Collected:	07.03.19 11.45	Sample Depth:	4 - 0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	FOV	Date Prep:	07.09.19 13.45	Basis:	Wet Weight
Seq Number:	3094964			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.11.19 12.22	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.11.19 12.22	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.11.19 12.22	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.11.19 12.22	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.11.19 12.22	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.11.19 12.22	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.11.19 12.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	07.11.19 12.22	
4-Bromofluorobenzene	460-00-4	121	%	70-130	07.11.19 12.22	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-010	Date Collected:	07.03.19 11.50	Sample Depth:	4 - 0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.09.19 13.00	Basis:	Wet Weight
Seq Number:	3094870			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2260**	25.0	mg/kg	07.09.19 15.46		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.14.19 10.00	Basis:	Wet Weight
Seq Number:	3095302			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.15.19 02.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.15.19 02.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.15.19 02.31	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.15.19 02.31	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.15.19 02.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	07.15.19 02.31	
o-Terphenyl	84-15-1	105	%	70-135	07.15.19 02.31	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-010	Date Collected:	07.03.19 11.50	Sample Depth:	4 - 0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	FOV	Date Prep:	07.09.19 13.45	Basis:	Wet Weight
Seq Number:	3094964			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.11.19 12.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.11.19 12.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.11.19 12.44	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.11.19 12.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.11.19 12.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.11.19 12.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.11.19 12.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	07.11.19 12.44	
4-Bromofluorobenzene	460-00-4	110	%	70-130	07.11.19 12.44	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-011	Date Collected:	07.03.19 11.55	Sample Depth:	4 - 0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.09.19 13.00	Basis:	Wet Weight
Seq Number:	3094870			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2450**	24.8	mg/kg	07.09.19 16.15		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.14.19 10.00	Basis:	Wet Weight
Seq Number:	3095302			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.15.19 03.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.15.19 03.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.15.19 03.19	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.15.19 03.19	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.15.19 03.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	07.15.19 03.19	
o-Terphenyl	84-15-1	99	%	70-135	07.15.19 03.19	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-011	Date Collected:	07.03.19 11.55	Sample Depth:	4 - 0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	FOV	Date Prep:	07.09.19 13.45	Basis:	Wet Weight
Seq Number:	3094964			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.11.19 01.07	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.11.19 01.07	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.11.19 01.07	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.11.19 01.07	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.11.19 01.07	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.11.19 01.07	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.11.19 01.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	07.11.19 01.07	
1,4-Difluorobenzene	540-36-3	93	%	70-130	07.11.19 01.07	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-012	Date Collected:	07.03.19 12.00	Sample Depth:	4 - 0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.09.19 13.00	Basis:	Wet Weight
Seq Number:	3094870			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1130**	4.99	mg/kg	07.09.19 16.43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.14.19 10.00	Basis:	Wet Weight
Seq Number:	3095302			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.15.19 03.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.15.19 03.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.15.19 03.42	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.15.19 03.42	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.15.19 03.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	07.15.19 03.42	
o-Terphenyl	84-15-1	104	%	70-135	07.15.19 03.42	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-012	Date Collected:	07.03.19 12.00	Sample Depth:	4 - 0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	FOV	Date Prep:	07.09.19 13.45	Basis:	Wet Weight
Seq Number:	3094964			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.11.19 01.29	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.11.19 01.29	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.11.19 01.29	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.11.19 01.29	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.11.19 01.29	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.11.19 01.29	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.11.19 01.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	07.11.19 01.29	
1,4-Difluorobenzene	540-36-3	98	%	70-130	07.11.19 01.29	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-013	Date Collected:	07.03.19 12.05	Sample Depth:	4 - 0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.09.19 13.00	Basis:	Wet Weight
Seq Number:	3094870			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**881**	4.97	mg/kg	07.09.19 17.35		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.14.19 10.00	Basis:	Wet Weight
Seq Number:	3095302			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.15.19 04.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.15.19 04.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.15.19 04.06	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.15.19 04.06	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.15.19 04.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	07.15.19 04.06	
o-Terphenyl	84-15-1	127	%	70-135	07.15.19 04.06	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-013	Date Collected:	07.03.19 12.05	Sample Depth:	4 - 0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	FOV	Date Prep:	07.09.19 13.45	Basis:	Wet Weight
Seq Number:	3094964			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.11.19 01.51	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.11.19 01.51	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.11.19 01.51	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.11.19 01.51	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.11.19 01.51	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.11.19 01.51	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.11.19 01.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	07.11.19 01.51	
1,4-Difluorobenzene	540-36-3	99	%	70-130	07.11.19 01.51	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-014	Date Collected:	07.03.19 12.10	Sample Depth:	4 - 0 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	07.09.19 13.00	Basis:	Wet Weight
Seq Number:	3094870			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2110**	24.8	mg/kg	07.09.19 17.42		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	07.14.19 10.00	Basis:	Wet Weight
Seq Number:	3095302			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.15.19 04.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.15.19 04.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	07.15.19 04.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.15.19 04.30	U	1
Total GRO-DRO	PHC628	<15.0	15.0	mg/kg	07.15.19 04.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	07.15.19 04.30	
o-Terphenyl	84-15-1	102	%	70-135	07.15.19 04.30	

Certificate of Analytical Results 629984

LT Environmental, Inc., Arvada, CO

PLU CVX JV PC 001H

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	07.03.19 16.10
Lab Sample Id:	629984-014	Date Collected:	07.03.19 12.10	Sample Depth:	4 - 0 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	DVM			% Moisture:	
Analyst:	FOV	Date Prep:	07.09.19 13.45	Basis:	Wet Weight
Seq Number:	3094964			SUB:	T104704400-18-16

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.11.19 02.13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.11.19 02.13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.11.19 02.13	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.11.19 02.13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.11.19 02.13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.11.19 02.13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.11.19 02.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	07.11.19 02.13	
4-Bromofluorobenzene	460-00-4	113	%	70-130	07.11.19 02.13	

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 629984

LT Environmental, Inc.

PLU CVX JV PC 001H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3094870 Matrix: Solid Date Prep: 07.09.19
MB Sample Id: 7681629-1-BLK LCS Sample Id: 7681629-1-BKS LCSD Sample Id: 7681629-1-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	246	98	246	98	90-110	0	20	mg/kg	07.09.19 13:47	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3094870 Matrix: Soil Date Prep: 07.09.19
Parent Sample Id: 629984-001 MS Sample Id: 629984-001 S MSD Sample Id: 629984-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	342	252	575	92	576	93	90-110	0	20	mg/kg	07.09.19 14:19	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3094870 Matrix: Soil Date Prep: 07.09.19
Parent Sample Id: 630100-001 MS Sample Id: 630100-001 S MSD Sample Id: 630100-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	133	250	376	97	377	98	90-110	0	20	mg/kg	07.09.19 16:00	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3095302 Matrix: Solid Date Prep: 07.14.19
MB Sample Id: 7681992-1-BLK LCS Sample Id: 7681992-1-BKS LCSD Sample Id: 7681992-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1130	113	1090	109	70-135	4	20	mg/kg	07.14.19 21:16	
Diesel Range Organics (DRO)	<8.13	1000	1170	117	1160	116	70-135	1	20	mg/kg	07.14.19 21:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	85		103		93		70-135	%	07.14.19 21:16
o-Terphenyl	98		126		108		70-135	%	07.14.19 21:16

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

QC Summary 629984

LT Environmental, Inc.

PLU CVX JV PC 001H

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3095302 Matrix: Soil Date Prep: 07.14.19
Parent Sample Id: 629984-001 MS Sample Id: 629984-001 S MSD Sample Id: 629984-001 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)	8.34	997	978	97	999	99	70-135	2	20	mg/kg	07.14.19 22:30	
Diesel Range Organics (DRO)	<8.10	997	1070	107	1070	107	70-135	0	20	mg/kg	07.14.19 22:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		90		70-135	%	07.14.19 22:30
o-Terphenyl	113		114		70-135	%	07.14.19 22:30

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3094952 Matrix: Solid Date Prep: 07.09.19
MB Sample Id: 7681643-1-BLK LCS Sample Id: 7681643-1-BKS LCSD Sample Id: 7681643-1-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	0.0812	81	0.0870	87	70-130	7	35	mg/kg	07.09.19 23:17	
Toluene	<0.000456	0.100	0.101	101	0.106	106	70-130	5	35	mg/kg	07.09.19 23:17	
Ethylbenzene	<0.00200	0.100	0.116	116	0.120	120	70-130	3	35	mg/kg	07.09.19 23:17	
m,p-Xylenes	<0.00101	0.200	0.231	116	0.241	121	70-130	4	35	mg/kg	07.09.19 23:17	
o-Xylene	0.000359	0.100	0.109	109	0.114	114	70-130	4	35	mg/kg	07.09.19 23:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	85		87		88		70-130	%	07.09.19 23:17
4-Bromofluorobenzene	107		109		107		70-130	%	07.09.19 23:17

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3094964 Matrix: Solid Date Prep: 07.09.19
MB Sample Id: 7681647-1-BLK LCS Sample Id: 7681647-1-BKS LCSD Sample Id: 7681647-1-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	0.0996	0.0863	87	0.0900	90	70-130	4	35	mg/kg	07.10.19 09:17	
Toluene	<0.00199	0.0996	0.0870	87	0.0894	89	70-130	3	35	mg/kg	07.10.19 09:17	
Ethylbenzene	<0.00199	0.0996	0.0965	97	0.0978	98	70-130	1	35	mg/kg	07.10.19 09:17	
m,p-Xylenes	<0.00398	0.199	0.196	98	0.199	100	70-130	2	35	mg/kg	07.10.19 09:17	
o-Xylene	<0.00199	0.0996	0.0957	96	0.0986	99	70-130	3	35	mg/kg	07.10.19 09:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		91		92		70-130	%	07.10.19 09:17
4-Bromofluorobenzene	101		104		112		70-130	%	07.10.19 09:17

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

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

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

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

QC Summary 629984

LT Environmental, Inc.

PLU CVX JV PC 001H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3094952 Matrix: Soil Date Prep: 07.09.19
Parent Sample Id: 629723-003 MS Sample Id: 629723-003 S MSD Sample Id: 629723-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0729	73	0.0768	77	70-130	5	35	mg/kg	07.10.19 00:03	
Toluene	0.000780	0.100	0.0881	87	0.0928	92	70-130	5	35	mg/kg	07.10.19 00:03	
Ethylbenzene	<0.000566	0.100	0.0953	95	0.101	101	70-130	6	35	mg/kg	07.10.19 00:03	
m,p-Xylenes	0.00262	0.200	0.190	94	0.202	99	70-130	6	35	mg/kg	07.10.19 00:03	
o-Xylene	0.00101	0.100	0.0913	90	0.0967	96	70-130	6	35	mg/kg	07.10.19 00:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		90		70-130	%	07.10.19 00:03
4-Bromofluorobenzene	110		111		70-130	%	07.10.19 00:03

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3094964 Matrix: Soil Date Prep: 07.09.19
Parent Sample Id: 629984-007 MS Sample Id: 629984-007 S MSD Sample Id: 629984-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0842	84	0.0763	76	70-130	10	35	mg/kg	07.10.19 10:02	
Toluene	<0.00201	0.100	0.0840	84	0.0775	78	70-130	8	35	mg/kg	07.10.19 10:02	
Ethylbenzene	<0.00201	0.100	0.0942	94	0.0851	85	70-130	10	35	mg/kg	07.10.19 10:02	
m,p-Xylenes	<0.00402	0.201	0.189	94	0.172	86	70-130	9	35	mg/kg	07.10.19 10:02	
o-Xylene	<0.00201	0.100	0.0943	94	0.0866	87	70-130	9	35	mg/kg	07.10.19 10:02	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		96		70-130	%	07.10.19 10:02
4-Bromofluorobenzene	122		127		70-130	%	07.10.19 10:02

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

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 629984

www.xenco.com Page 1 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
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:	bbelill@ltenv.com

Work Order Comments

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

Project Name:	PLU CUK JV PC 001H	Turn Around	
Project Number:	ZRP-3813, ZRP-3180	Routine	☒
P.O. Number:	0129195	Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	5.9	Thermometer ID	TNM007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	14

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
SW01	S	7/3/19	0920	0-4'	1	X	X	X
SW02			0925	0-4'		X	X	X
SW03			0935	0-4'		X	X	X
SW04			0945	0-4'		X	X	X
SW05			0950	0-4'		X	X	X
PH08			1040	6'		X	X	X
PH08A			1050	8'		X	X	X
PH09			1100	6'		X	X	X
FS01			1145	4'		X	X	X
FS02	↓	↓	1150	4'	↓	X	X	X

Work Order Notes

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

Sample Comments

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		7/3/19 @ 16:10	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

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

Work Order No: 629984

Page 2 of 2

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:	bbelill@ltenv.com

Work Order Comments

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

Project Name:	PLU CUX JU PC 601H	Turn Around	
Project Number:	2RP-3813, 2RP-3180	Routine	☒
P.O. Number:	0179191135	Rush:	
Sampler's Name:	Benjamin Belill	Due Date:	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS03	S	7/3/19	1155	4'	1	X	X	X
FS04	↓	↓	1200	4'	↓	X	X	X
FS05	↓	↓	1205	4'	↓	X	X	X
FS06	↓	↓	1210	4'	↓	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		7/3/19 @ 1610	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number **42942**

Date/Time: 07/08/19 11:41
Created by: Elizabeth Mcclellan
Please send report to: Jessica Kramer

Lab# From: **Carlsbad**
Delivery Priority:
Address: 1089 N Canal Street

Lab# To: **Midland**
Air Bill No.: 775657776393
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
629984-001	S	SW01	07/03/19 09:20	SW8015MOD_NM	TPH by SW8015 Mod	07/10/19	07/17/19	JKR	GRO-DRO PHCC10C28 PI	
629984-001	S	SW01	07/03/19 09:20	SW8021B	BTEX by EPA 8021B	07/10/19	07/17/19	JKR	BR4FBZ BZ BZME EBZ X	
629984-001	S	SW01	07/03/19 09:20	E300_CL	Chloride by EPA 300	07/10/19	12/30/19	JKR	CL	
629984-002	S	SW02	07/03/19 09:25	SW8015MOD_NM	TPH by SW8015 Mod	07/10/19	07/17/19	JKR	GRO-DRO PHCC10C28 PI	
629984-002	S	SW02	07/03/19 09:25	SW8021B	BTEX by EPA 8021B	07/10/19	07/17/19	JKR	BR4FBZ BZ BZME EBZ X	
629984-002	S	SW02	07/03/19 09:25	E300_CL	Chloride by EPA 300	07/10/19	12/30/19	JKR	CL	
629984-003	S	SW03	07/03/19 09:35	SW8021B	BTEX by EPA 8021B	07/10/19	07/17/19	JKR	BR4FBZ BZ BZME EBZ X	
629984-003	S	SW03	07/03/19 09:35	SW8015MOD_NM	TPH by SW8015 Mod	07/10/19	07/17/19	JKR	GRO-DRO PHCC10C28 PI	
629984-003	S	SW03	07/03/19 09:35	E300_CL	Chloride by EPA 300	07/10/19	12/30/19	JKR	CL	
629984-004	S	SW04	07/03/19 09:45	E300_CL	Chloride by EPA 300	07/10/19	12/30/19	JKR	CL	
629984-004	S	SW04	07/03/19 09:45	SW8021B	BTEX by EPA 8021B	07/10/19	07/17/19	JKR	BR4FBZ BZ BZME EBZ X	
629984-004	S	SW04	07/03/19 09:45	SW8015MOD_NM	TPH by SW8015 Mod	07/10/19	07/17/19	JKR	GRO-DRO PHCC10C28 PI	
629984-005	S	SW05	07/03/19 09:50	E300_CL	Chloride by EPA 300	07/10/19	12/30/19	JKR	CL	
629984-005	S	SW05	07/03/19 09:50	SW8021B	BTEX by EPA 8021B	07/10/19	07/17/19	JKR	BR4FBZ BZ BZME EBZ X	
629984-005	S	SW05	07/03/19 09:50	SW8015MOD_NM	TPH by SW8015 Mod	07/10/19	07/17/19	JKR	GRO-DRO PHCC10C28 PI	
629984-006	S	PH08	07/03/19 10:40	E300_CL	Chloride by EPA 300	07/10/19	12/30/19	JKR	CL	
629984-006	S	PH08	07/03/19 10:40	SW8015MOD_NM	TPH by SW8015 Mod	07/10/19	07/17/19	JKR	GRO-DRO PHCC10C28 PI	
629984-006	S	PH08	07/03/19 10:40	SW8021B	BTEX by EPA 8021B	07/10/19	07/17/19	JKR	BR4FBZ BZ BZME EBZ X	
629984-007	S	PH08A	07/03/19 10:50	SW8021B	BTEX by EPA 8021B	07/10/19	07/17/19	JKR	BR4FBZ BZ BZME EBZ X	
629984-007	S	PH08A	07/03/19 10:50	SW8015MOD_NM	TPH by SW8015 Mod	07/10/19	07/17/19	JKR	GRO-DRO PHCC10C28 PI	
629984-007	S	PH08A	07/03/19 10:50	E300_CL	Chloride by EPA 300	07/10/19	12/30/19	JKR	CL	
629984-008	S	PH09	07/03/19 11:00	SW8021B	BTEX by EPA 8021B	07/10/19	07/17/19	JKR	BR4FBZ BZ BZME EBZ X	
629984-008	S	PH09	07/03/19 11:00	E300_CL	Chloride by EPA 300	07/10/19	12/30/19	JKR	CL	
629984-008	S	PH09	07/03/19 11:00	SW8015MOD_NM	TPH by SW8015 Mod	07/10/19	07/17/19	JKR	GRO-DRO PHCC10C28 PI	
629984-009	S	FS01	07/03/19 11:45	SW8015MOD_NM	TPH by SW8015 Mod	07/10/19	07/17/19	JKR	GRO-DRO PHCC10C28 PI	

Inter-Office Shipment

IOS Number **42942**

Date/Time: 07/08/19 11:41
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Elizabeth Mcclellan
Delivery Priority:
Air Bill No.: 775657776393

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
629984-009	S	FS01	07/03/19 11:45	SW8021B	BTEX by EPA 8021B	07/10/19	07/17/19	JKR	BR4FBZ BZ BZME EBZ X	
629984-009	S	FS01	07/03/19 11:45	E300_CL	Chloride by EPA 300	07/10/19	12/30/19	JKR	CL	
629984-010	S	FS02	07/03/19 11:50	SW8021B	BTEX by EPA 8021B	07/10/19	07/17/19	JKR	BR4FBZ BZ BZME EBZ X	
629984-010	S	FS02	07/03/19 11:50	SW8015MOD_NM	TPH by SW8015 Mod	07/10/19	07/17/19	JKR	GRO-DRO PHCC10C28 PI	
629984-010	S	FS02	07/03/19 11:50	E300_CL	Chloride by EPA 300	07/10/19	12/30/19	JKR	CL	
629984-011	S	FS03	07/03/19 11:55	SW8015MOD_NM	TPH by SW8015 Mod	07/10/19	07/17/19	JKR	GRO-DRO PHCC10C28 PI	
629984-011	S	FS03	07/03/19 11:55	E300_CL	Chloride by EPA 300	07/10/19	12/30/19	JKR	CL	
629984-011	S	FS03	07/03/19 11:55	SW8021B	BTEX by EPA 8021B	07/10/19	07/17/19	JKR	BR4FBZ BZ BZME EBZ X	
629984-012	S	FS04	07/03/19 12:00	SW8021B	BTEX by EPA 8021B	07/10/19	07/17/19	JKR	BR4FBZ BZ BZME EBZ X	
629984-012	S	FS04	07/03/19 12:00	SW8015MOD_NM	TPH by SW8015 Mod	07/10/19	07/17/19	JKR	GRO-DRO PHCC10C28 PI	
629984-012	S	FS04	07/03/19 12:00	E300_CL	Chloride by EPA 300	07/10/19	12/30/19	JKR	CL	
629984-013	S	FS05	07/03/19 12:05	SW8015MOD_NM	TPH by SW8015 Mod	07/10/19	07/17/19	JKR	GRO-DRO PHCC10C28 PI	
629984-013	S	FS05	07/03/19 12:05	E300_CL	Chloride by EPA 300	07/10/19	12/30/19	JKR	CL	
629984-013	S	FS05	07/03/19 12:05	SW8021B	BTEX by EPA 8021B	07/10/19	07/17/19	JKR	BR4FBZ BZ BZME EBZ X	
629984-014	S	FS06	07/03/19 12:10	SW8021B	BTEX by EPA 8021B	07/10/19	07/17/19	JKR	BR4FBZ BZ BZME EBZ X	
629984-014	S	FS06	07/03/19 12:10	E300_CL	Chloride by EPA 300	07/10/19	12/30/19	JKR	CL	
629984-014	S	FS06	07/03/19 12:10	SW8015MOD_NM	TPH by SW8015 Mod	07/10/19	07/17/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 07/08/2019

Received By: Brianna Teel

Date Received: 07/09/2019 11:08

Cooler Temperature: 0.6

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 42942

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

Sent By: Elizabeth McClellan **Date Sent:** 07/08/2019 11:41 AM

Received By: Brianna Teel **Date Received:** 07/09/2019 11:08 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.6	
#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: 07/09/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 07/03/2019 04:10:00 PM

Work Order #: 629984

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)?	5.9	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 Custody Seals intact on sample bottles?	**No**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Subbed to Xenco 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: 07/03/2019

Checklist reviewed by: Jessica Kramer Date: 07/09/2019

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

Action 270089

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 270089
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	10/6/2023