



LT Environmental, Inc.

3300 North "A" Street
Building 1, Unit 103
Midland, Texas 79705
432.704.5178

February 5, 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 RR #003H/Poker Lake Unit Ross Ranch 19 Battery
Remediation Permit Number 2RP-4706
Eddy County, New Mexico

Dear Mr. Billings:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following letter report detailing excavation of impacted soil and confirmation soil sampling activities at the Poker Lake Unit CVX JV RR #003H/Poker Lake Unit Ross Ranch 19 Battery (Site) located in Unit P, Section 19, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1).

The purpose of the excavation and soil sampling activities was to address impacts to soil after the well pumped off and caused fluid to release from the stuffing box E-pot. The power was shut down during response activities, inactivating the water transfer pump. As a result, the water tank overflowed into the lined containment while the power was off. The release of approximately 4 barrels (bbls) of crude oil and 110 bbls of produced water was discovered on April 1, 2018. The initial release affected approximately 3,900 square feet of caliche pad near the well head, while the second release remained within the lined tank battery containment. Approximately 3.5 bbls of crude oil and 103.5 bbls of produced water were recovered with a vacuum truck. The free-standing fluid was recovered from the ground surface, and all fluid released within the lined containment was recovered and returned to the production tanks. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on April 16, 2018, and was assigned Remediation Permit (RP) Number 2RP-4706 (Attachment 1).

The release is 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 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) dated August 14, 2018. This release is categorized as a Tier II site in the Compliance Agreement, meaning remediation of the release began prior to August 14, 2018, the effective date of 19.15.29 NMAC, however the



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closure report is pending. Based on the excavation activities and results of the confirmation soil sampling events, XTO is requesting no further action for this release.

BACKGROUND

According to Section 12 of 19.15.29 NMAC, LTE applied Table 1, the *Closure Criteria for Soils Impacted by a Release*. 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 well 320629103533002 25S.30E.21.33342 A, located approximately 1.26 miles east of the Site, with a depth to groundwater of 265 feet and a total depth of 280 feet. The water well is approximately 38 feet higher in elevation than the Site. The closest surface water to the Site is a seasonal arroyo located approximately 1,025 feet south of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. Based on these criteria, the following NMOCD Table 1 closure criteria apply: 10 milligrams per kilogram (mg/kg) benzene; 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX); 2,500 mg/kg total petroleum hydrocarbons (TPH); 1,000 mg/kg TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO); and 20,000 mg/kg chloride.

EXCAVATION AND SOIL SAMPLING ACTIVITIES

During April 2018, LTE personnel inspected the Site to evaluate and document the release areas. Excavation was scheduled for the stuffing box release area near the well head. No further remediation was required for the produced water tank release in the lined containment; the released fluid was recovered, and the liner was intact.

During July 2018, LTE personnel returned to the Site to oversee the excavation of impacted soil as indicated by field screening, surface staining, and the documented release area. Excavation activities commenced on July 6, 2018, and concluded on August 10, 2018. To delineate hydrocarbon and chloride impacts to soil and direct excavation activities, LTE screened soil using a photo-ionization detector (PID) and Hach® chloride QuanTab® test strips. Impacted soil was excavated from the release area to depths ranging from 10 feet to 13 feet bgs. Following removal of impacted soil, LTE collected discrete confirmation soil samples from the final lateral and vertical extents of the excavation as illustrated on Figure 2. Confirmation soil samples SW12 and SW14 through SW17 were collected from the sidewalls of the excavation from depths of 2 feet to 6 feet bgs. Confirmation soil samples FS05 and FS13 through FS15 were collected from the floor of the excavation from depths of 10 feet to 13 feet bgs. Soil sample nomenclature does not appear chronologically because some samples were submitted to the laboratory, however analysis was not requested or required and some samples were collected for field screening purposes only.



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Excavation of the impacted soil was conducted prior to the Compliance Agreement and the August 14, 2018, NMOCD modification to 19.15.29 NMAC; however, since a closure report had not been submitted, this release was included in Tier II of the Compliance Agreement. Excavation confirmation soil samples were collected as discrete samples instead of composite samples. The area of impacted soil could be visually discerned, and the location of the release was well documented; therefore, LTE used experienced judgement for the sampling protocol, selecting sample locations based on visual observation to represent the floor and sidewalls of the excavation. The sampling protocol complied with *Guidance on Choosing a Sampling Design for Environmental Data Collection for Use in Developing a Quality Assurance Project Plan*, EPA QA/G-5S, December 2002.

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

The excavation measured approximately 3,000 square feet in area with a depth of 10 feet to 13 feet bgs. The horizontal extent of the excavation is illustrated on Figure 2. Approximately 1,660 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 in Hobbs, New Mexico, and the R30 Red Bluff Landfill Facility in Orla, Texas.

ANALYTICAL RESULTS

Laboratory analytical results for the confirmation sidewall samples (SW12 and SW14 through SW17) and the confirmation floor samples (FS05 and FS13 through FS15) collected from the final excavation extent indicated that BTEX, TPH, and chloride concentrations were compliant with the NMOCD Table 1 closure criteria.

Upon review of the soil sample locations, it was determined that additional excavation sidewall samples were warranted from the southeast portion of the excavation. On January 15, 2019, LTE returned to the Site to collect 5-point composite soil samples SW01, SW02, SW03, and SW06 from the sidewalls of the excavation. The 5-point composite samples were collected by depositing 5 aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The final confirmation soil samples were collected after August 14, 2018, by composite sampling to comply with 19.15.29.12 NMAC. The soil samples were collected, handled, and analyzed as described above and submitted to Xenco in Midland, Texas.

Laboratory analytical results for the additional confirmation sidewall samples (SW01, SW02, SW03, and SW06) confirmed that BTEX, TPH, and chloride concentrations were compliant with





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the NMOCD Table 1 closure criteria and no further excavation was required. Laboratory analytical results are presented on Figure 2 and summarized in Table 1, and the complete laboratory analytical reports are included as Attachment 2.

CONCLUSIONS

The impacted soil was excavated from the release area, and laboratory analytical results for the confirmation soil samples collected from the final excavation extent indicated that BTEX, TPH, and chloride concentrations were compliant with the NMOCD Table 1 closure criteria. Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. XTO requests no further action for this release. Upon approval of the no further action request, XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. An updated NMOCD Form C-141 is included as Attachment 1. A photographic log of the Site is included as Attachment 3.

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

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in blue ink that reads 'Adrian Baker'.

Adrian Baker
Project Geologist

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

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Mike Bratcher, NMOCD
Jim Amos, BLM

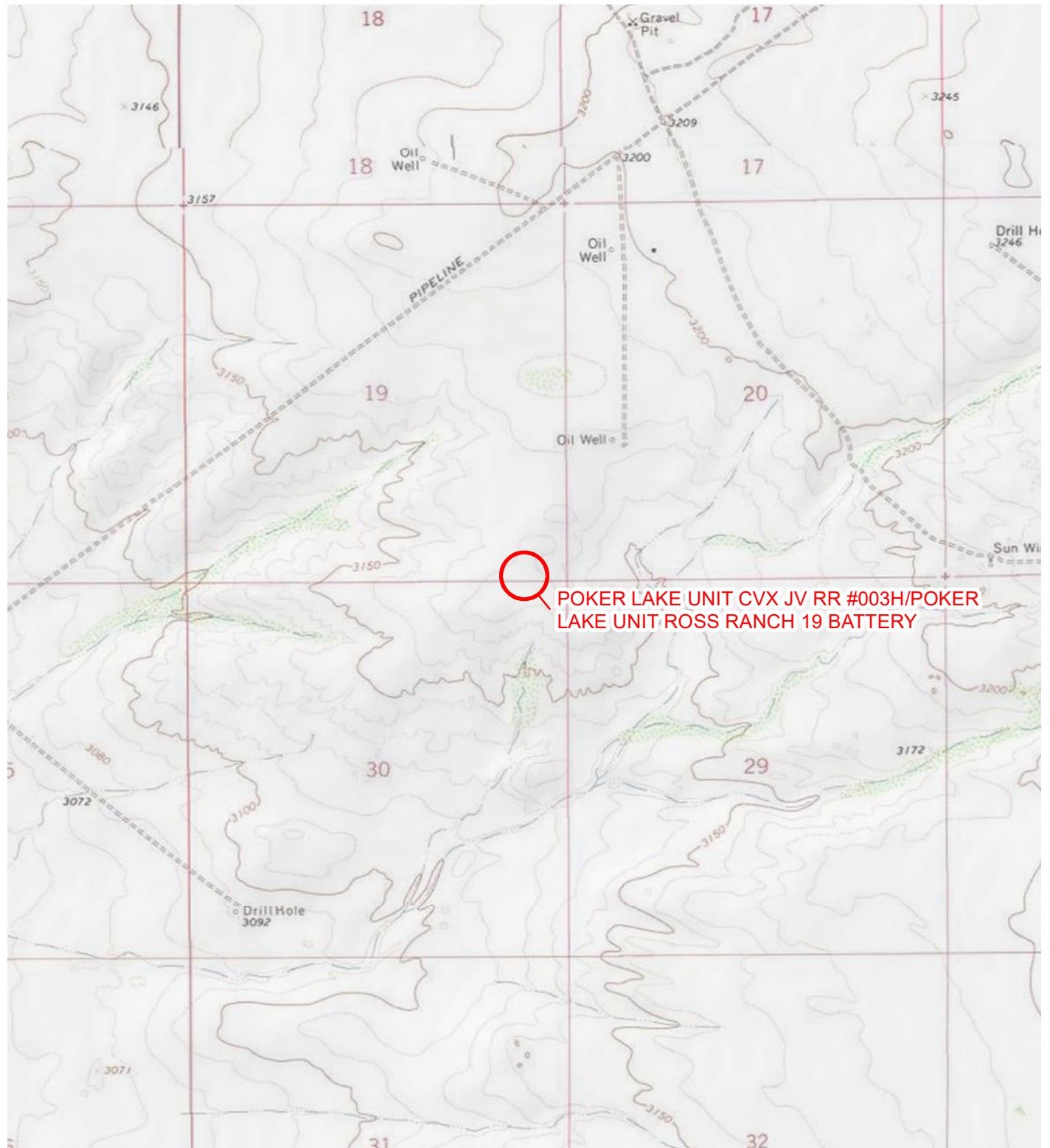
Attachments:

Figure 1 Site Location Map
Figure 2 Final Soil Sample Locations
Table 1 Soil Analytical Results
Attachment 1 Initial/Final NMOCD Form C-141 (2RP-4706)
Attachment 2 Laboratory Analytical Reports
Attachment 3 Photographic Log



FIGURES



**LEGEND**

○ SITE LOCATION

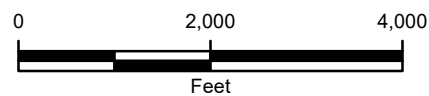


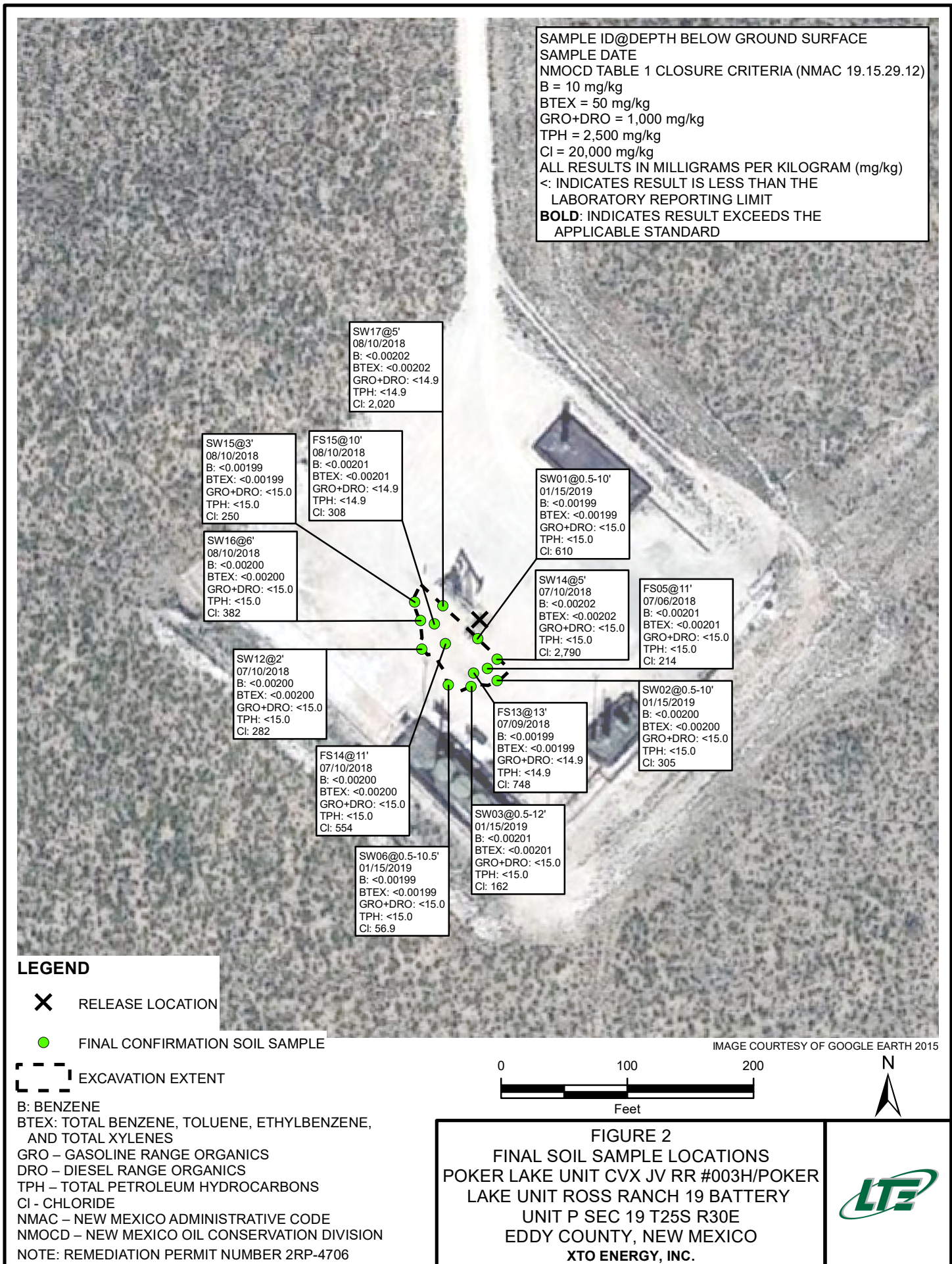
IMAGE COURTESY OF ESRI/USGS



NOTE: REMEDIATION PERMIT
NUMBER 2RP-4706

FIGURE 1
SITE LOCATION MAP
POKER LAKE UNIT CVX JV RR #003H/POKER
LAKE UNIT ROSS RANCH 19 BATTERY
UNIT P SEC 19 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.





TABLE



TABLE 1
SOIL ANALYTICAL RESULTS

POKER LAKE UNIT CVX JV RR #003H/POKER LAKE UNIT ROSS RANCH 19 BATTERY
REMEDIATION PERMIT NUMBER 2RP-4706
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	C6-C10 GRO (mg/kg)	C10-C28 DRO (mg/kg)	C28-C40 ORO (mg/kg)	GRO and DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
FS05	11	07/06/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	214
FS13	13	07/09/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	748
FS14	11	07/10/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	554
SW12	2	07/10/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	282
SW14	5	07/10/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	2,790
FS15	10	08/10/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	308
SW15	3	08/10/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	250
SW16	6	08/10/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	382
SW17	5	08/10/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<14.9	<14.9	<14.9	<14.9	<14.9	2,020
SW01	0.5 - 10	01/15/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	610
SW02	0.5 - 10	01/15/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	305
SW03	0.5 - 12	01/15/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	162
SW06	0.5 - 10.5	01/15/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	56.9
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

mg/kg - milligrams per kilogram

NE - not established

NMOCD - New Mexico Oil Conservation Division

DRO - diesel range organics

GRO - gasoline range organics

ORO - oil range organics

TPH - total petroleum hydrocarbons

< - indicates result is below laboratory reporting limits

Bold - indicates result exceeds the applicable regulatory standard

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

NMAC - New Mexico Administrative Code



ATTACHMENT 1: INITIAL/FINAL NMOC FORM C-141 (2RP-4706)



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

APR 16 2018

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

OPERATOR ☒ Initial Report ☐ Final Report

Name of Company: XTO Energy **BP 260737** Contact: Amy Ruth
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220 Telephone No: 575-689-3380
Facility Name: Poker Lake Unit CVX JV RR #003H (and
Poker Lake RR 19 Battery) Facility Type: Exploration and Production




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

LOCATION OF RELEASE

Unit Letter P	Section 19	Township 25S	Range 30E	Feet from the 100	North/South Line South	Feet from the 480	East/West Line East	County Eddy
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Latitude 32.108508° Longitude -103.913598° NAD83

NATURE OF RELEASE

Type of Release	Produced Water and Crude Oil	Volume of Release	4 BO 110 BPW	Volume Recovered	3.5 BO 103.5 BPW
Source of Release	Stuffing box and water tank	Date and Hour of Occurrence	4/1/2018 time unknown	Date and Hour of Discovery	4/1/2018 9:30 am
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Mike Bratcher/Crystal Weaver (NMOCD), Shelly Tucker/Jim Amos (BLM)		
By Whom?	Amy Ruth	Date and Hour:	4/2/2018 11:44 am by email		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	N/A		
If a Watercourse was Impacted, Describe Fully.* N/A					
Describe Cause of Problem and Remedial Action Taken.* The well pumped off and caused fluid to release from stuffing box E-pot. The pumping unit power was switched off at main pole disconnect in order for the lease operator to wait at a safe distance for the wellhead to bleed down. The failed stuffing box packing and E-pot were replaced. Due to the power shut down and well repair, the water transfer pump for the battery was also not operating. This caused the water tank to overflow into the lined containment.					
Describe Area Affected and Cleanup Action Taken.* The release affected approximately 3,900 square feet of caliche pad surrounding the wellhead and the area within the lined battery containment. Free standing fluids were recovered from the ground. All fluids released to lined containment were recovered and returned to production. The tanks and containment were power washed. An environmental contractor has been retained to assist with delineation and remediation efforts.					
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: 		OIL CONSERVATION DIVISION			
Printed Name: Amy Ruth		Approved by Environmental Specialist: 			
Title: Environmental Coordinator		Approval Date: 4/17/18		Expiration Date: N/A	
E-mail Address: Amy_Ruth@xtoenergy.com		Conditions of Approval: See attached		Attached 	
Date: 4/16/2018 Phone: 575-689-3380					

* Attach Additional Sheets If Necessary

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-4706
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-4706
Contact mailing address 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude 32.108508

Longitude -103.913598

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Poker Lake Unit CVX JV RR #003H/Poker Lake Unit Ross Ranch 19 Battery	Site Type: Exploration and Production
Date Release Discovered: April 1, 2018	API# (if applicable) 30-015-37800

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

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

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 4	Volume Recovered (bbls) 3.5
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 110	Volume Recovered (bbls) 103.5
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The well pumped off and caused fluid to release from stuffing box E-pot. The pumping unit power was switched off at main pole disconnect in order for the lease operator to wait at a safe distance for the wellhead to bleed down. The failed stuffing box packing and E-pot were replaced. Due to the power shut down and well repair, the water transfer pump for the battery was also not operating. This caused the water tank to overflow into the lined containment.

The release affected approximately 3,900 square feet of caliche pad surrounding the wellhead and the area within the lined battery containment. Free standing fluids were recovered from the ground. All fluids released to lined containment were recovered and returned to production.

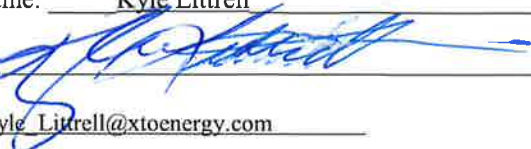
Oil Conservation Division

Incident ID	
District RP	2RP-4706
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Application ID	

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

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: 	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Kyle Littrell</u>	Title: <u>SH&E Coordinator</u>
Signature: 	Date: <u>02/05/2019</u>
email: <u>Kyle.Littrell@xtoenergy.com</u>	Telephone: <u>432-221-7331</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

Incident ID	
District RP	2RP-4706
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?	<u>>100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.

Oil Conservation Division

Incident ID	
District RP	2RP-4706
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 Coordinator

Signature:  Date: 02/05/2019

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

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	2RP-4706
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 Coordinator

Signature:  Date: 02/05/2019

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: 2/24/2023

Printed Name: Brittany Hall Title: Environmental Specialist

ATTACHMENT 2: LABORATORY ANALYTICAL REPORTS



Analytical Report 592018

for
LT Environmental, Inc.

Project Manager: Adrian Baker

PLU Ross Ranch 19 FED

10-DEC-18

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

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

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

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



10-DEC-18

Project Manager: **Adrian Baker**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **592018**

PLU Ross Ranch 19 FED

Project Address: Eddy County, NM

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 592018. 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. 592018 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer

Project Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 592018****LT Environmental, Inc., Arvada, CO**

PLU Ross Ranch 19 FED

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BG01	S	07-10-18 13:55	.5 ft	592018-001
FS05	S	07-06-18 09:05	11 ft	592018-002
FS13	S	07-09-18 14:50	13 ft	592018-003
FS14	S	07-10-18 14:35	11 ft	592018-004
SW12	S	07-10-18 12:30	2 ft	592018-006
SW14	S	07-10-18 13:10	5 ft	592018-008
SW11	S	07-10-18 12:10	3 ft	Not Analyzed
SW13	S	07-10-18 13:05	5 ft	Not Analyzed



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *PLU Ross Ranch 19 FED*

Project ID:

Work Order Number(s): 592018

Report Date: 10-DEC-18

Date Received: 07/12/2018

Sample receipt non conformances and comments:

per clients email, took samples 2,3,4,6 and 8 to be ran for CL, 8015, BTEX. Standard TAT. JKR 07/16/18

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3056801 BTEX by EPA 8021B

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



Certificate of Analysis Summary 592018

LT Environmental, Inc., Arvada, CO

Project Name: PLU Ross Ranch 19 FED



Project Id:

Contact: Adrian Baker

Project Location: Eddy County, NM

Date Received in Lab: Thu Jul-12-18 11:00 am

Report Date: 10-DEC-18

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	592018-001	592018-002	592018-003	592018-004	592018-006	592018-008
	<i>Field Id:</i>	BG01	FS05	FS13	FS14	SW12	SW14
	<i>Depth:</i>	.5- ft	11- ft	13- ft	11- ft	2- ft	5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jul-10-18 13:55	Jul-06-18 09:05	Jul-09-18 14:50	Jul-10-18 14:35	Jul-10-18 12:30	Jul-10-18 13:10
BTEX by EPA 8021B	<i>Extracted:</i>		Jul-17-18 16:00	Jul-17-18 16:00	Jul-17-18 16:00	Jul-17-18 16:00	Jul-17-18 16:00
	<i>Analyzed:</i>		Jul-18-18 04:32	Jul-18-18 04:50	Jul-18-18 05:08	Jul-18-18 05:26	Jul-18-18 05:44
	<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene			<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
Toluene			<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene			<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes			<0.00402 0.00402	<0.00398 0.00398	<0.00399 0.00399	<0.00401 0.00401	<0.00403 0.00403
o-Xylene			<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes			<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
Total BTEX			<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
Inorganic Anions by EPA 300	<i>Extracted:</i>	Jul-12-18 15:00	Jul-18-18 16:00	Jul-18-18 16:00	Jul-18-18 16:00	Jul-18-18 16:00	Jul-18-18 16:00
	<i>Analyzed:</i>	Jul-12-18 18:05	Jul-18-18 18:02	Jul-18-18 18:07	Jul-18-18 18:13	Jul-18-18 17:46	Jul-18-18 18:18
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		28.5 5.00	214 25.3	748 4.97	554 5.00	282 5.00	2790 24.9
TPH by SW8015 Mod	<i>Extracted:</i>		Jul-16-18 17:00	Jul-16-18 17:00	Jul-16-18 17:00	Jul-16-18 17:00	Jul-16-18 17:00
	<i>Analyzed:</i>		Jul-16-18 20:02	Jul-16-18 21:00	Jul-16-18 21:20	Jul-16-18 21:39	Jul-16-18 21:59
	<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)			<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	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons (ORO)			<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	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0

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

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

Version: 1.9%

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analytical Results 592018



LT Environmental, Inc., Arvada, CO

PLU Ross Ranch 19 FED

Sample Id: **BG01**
Lab Sample Id: 592018-001

Matrix: Soil
Date Collected: 07.10.18 13.55

Date Received: 07.12.18 11.00
Sample Depth: .5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 07.12.18 15.00

Basis: Wet Weight

Seq Number: 3056282

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	28.5	5.00	mg/kg	07.12.18 18.05		1



Certificate of Analytical Results 592018



LT Environmental, Inc., Arvada, CO

PLU Ross Ranch 19 FED

Sample Id: **FS05**
Lab Sample Id: 592018-002

Matrix: Soil
Date Collected: 07.06.18 09.05

Date Received: 07.12.18 11.00
Sample Depth: 11 ft

Analytical Method: Inorganic Anions by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3056961

Date Prep: 07.18.18 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	214	25.3	mg/kg	07.18.18 18.02		5

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3056702

Date Prep: 07.16.18 17.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.16.18 20.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.16.18 20.02	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.16.18 20.02	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.16.18 20.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	07.16.18 20.02	
o-Terphenyl	84-15-1	105	%	70-135	07.16.18 20.02	



Certificate of Analytical Results 592018

LT Environmental, Inc., Arvada, CO

PLU Ross Ranch 19 FED

Sample Id: **FS05**
 Lab Sample Id: 592018-002

Matrix: Soil
 Date Collected: 07.06.18 09.05

Date Received: 07.12.18 11.00
 Sample Depth: 11 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.17.18 16.00

Basis: Wet Weight

Seq Number: 3056801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.18.18 04.32	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.18.18 04.32	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.18.18 04.32	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.18.18 04.32	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.18.18 04.32	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.18.18 04.32	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.18.18 04.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	07.18.18 04.32		
1,4-Difluorobenzene	540-36-3	79	%	70-130	07.18.18 04.32		



Certificate of Analytical Results 592018



LT Environmental, Inc., Arvada, CO

PLU Ross Ranch 19 FED

Sample Id: **FS13**
Lab Sample Id: 592018-003

Matrix: Soil
Date Collected: 07.09.18 14.50

Date Received: 07.12.18 11.00
Sample Depth: 13 ft

Analytical Method: Inorganic Anions by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3056961

Date Prep: 07.18.18 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	748	4.97	mg/kg	07.18.18 18.07		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3056702

Date Prep: 07.16.18 17.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.16.18 21.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	07.16.18 21.00	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	07.16.18 21.00	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	07.16.18 21.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	07.16.18 21.00	
o-Terphenyl	84-15-1	103	%	70-135	07.16.18 21.00	



Certificate of Analytical Results 592018

LT Environmental, Inc., Arvada, CO

PLU Ross Ranch 19 FED

Sample Id: **FS13**
 Lab Sample Id: 592018-003

Matrix: Soil
 Date Collected: 07.09.18 14.50

Date Received: 07.12.18 11.00
 Sample Depth: 13 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.17.18 16.00

Basis: Wet Weight

Seq Number: 3056801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.18.18 04.50	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.18.18 04.50	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.18.18 04.50	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.18.18 04.50	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.18.18 04.50	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.18.18 04.50	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.18.18 04.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	82	%	70-130	07.18.18 04.50		
1,4-Difluorobenzene	540-36-3	77	%	70-130	07.18.18 04.50		



Certificate of Analytical Results 592018



LT Environmental, Inc., Arvada, CO

PLU Ross Ranch 19 FED

Sample Id: **FS14**
Lab Sample Id: 592018-004

Matrix: Soil
Date Collected: 07.10.18 14.35

Date Received: 07.12.18 11.00
Sample Depth: 11 ft

Analytical Method: Inorganic Anions by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3056961

Date Prep: 07.18.18 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	554	5.00	mg/kg	07.18.18 18.13		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3056702

Date Prep: 07.16.18 17.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.16.18 21.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.16.18 21.20	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.16.18 21.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.16.18 21.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	07.16.18 21.20	
o-Terphenyl	84-15-1	104	%	70-135	07.16.18 21.20	



Certificate of Analytical Results 592018

LT Environmental, Inc., Arvada, CO

PLU Ross Ranch 19 FED

Sample Id: **FS14**
 Lab Sample Id: 592018-004

Matrix: Soil
 Date Collected: 07.10.18 14.35

Date Received: 07.12.18 11.00
 Sample Depth: 11 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.17.18 16.00

Basis: Wet Weight

Seq Number: 3056801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.18.18 05.08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.18.18 05.08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.18.18 05.08	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.18.18 05.08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.18.18 05.08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.18.18 05.08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.18.18 05.08	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		95	%	70-130	07.18.18 05.08	
4-Bromofluorobenzene	460-00-4		94	%	70-130	07.18.18 05.08	



Certificate of Analytical Results 592018



LT Environmental, Inc., Arvada, CO

PLU Ross Ranch 19 FED

Sample Id: **SW12**
Lab Sample Id: 592018-006

Matrix: Soil
Date Collected: 07.10.18 12.30

Date Received: 07.12.18 11.00
Sample Depth: 2 ft

Analytical Method: Inorganic Anions by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3056961

Date Prep: 07.18.18 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	282	5.00	mg/kg	07.18.18 17.46		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3056702

Date Prep: 07.16.18 17.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.16.18 21.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.16.18 21.39	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.16.18 21.39	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.16.18 21.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	07.16.18 21.39	
o-Terphenyl	84-15-1	104	%	70-135	07.16.18 21.39	



Certificate of Analytical Results 592018

LT Environmental, Inc., Arvada, CO

PLU Ross Ranch 19 FED

Sample Id: **SW12**
 Lab Sample Id: 592018-006

Matrix: Soil
 Date Collected: 07.10.18 12.30

Date Received: 07.12.18 11.00
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.17.18 16.00

Basis: Wet Weight

Seq Number: 3056801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.18.18 05.26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.18.18 05.26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.18.18 05.26	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.18.18 05.26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.18.18 05.26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.18.18 05.26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.18.18 05.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	07.18.18 05.26		
1,4-Difluorobenzene	540-36-3	93	%	70-130	07.18.18 05.26		



Certificate of Analytical Results 592018



LT Environmental, Inc., Arvada, CO

PLU Ross Ranch 19 FED

Sample Id: **SW14**
 Lab Sample Id: 592018-008

Matrix: Soil
 Date Collected: 07.10.18 13.10

Date Received: 07.12.18 11.00
 Sample Depth: 5 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 07.18.18 16.00

Basis: Wet Weight

Seq Number: 3056961

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2790	24.9	mg/kg	07.18.18 18.18		5

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.16.18 17.00

Basis: Wet Weight

Seq Number: 3056702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.16.18 21.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.16.18 21.59	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.16.18 21.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.16.18 21.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	07.16.18 21.59	
o-Terphenyl	84-15-1	100	%	70-135	07.16.18 21.59	



Certificate of Analytical Results 592018



LT Environmental, Inc., Arvada, CO

PLU Ross Ranch 19 FED

Sample Id: **SW14**
Lab Sample Id: 592018-008

Matrix: Soil
Date Collected: 07.10.18 13.10

Date Received: 07.12.18 11.00
Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.17.18 16.00

Basis: Wet Weight

Seq Number: 3056801

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.18.18 05.44	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.18.18 05.44	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.18.18 05.44	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.18.18 05.44	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.18.18 05.44	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.18.18 05.44	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.18.18 05.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	07.18.18 05.44		
1,4-Difluorobenzene	540-36-3	90	%	70-130	07.18.18 05.44		



Flagging Criteria



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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

PLU Ross Ranch 19 FED

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3056282

MB Sample Id: 7658306-1-BLK

Matrix: Solid

LCS Sample Id: 7658306-1-BKS

Prep Method: E300P

Date Prep: 07.12.18

LCSD Sample Id: 7658306-1-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	264	106	263	105	90-110	0	20	mg/kg	07.12.18 17:06	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3056961

MB Sample Id: 7658662-1-BLK

Matrix: Solid

LCS Sample Id: 7658662-1-BKS

Prep Method: E300P

Date Prep: 07.18.18

LCSD Sample Id: 7658662-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	251	100	250	100	90-110	0	20	mg/kg	07.18.18 17:35	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3056282

Parent Sample Id: 591481-007

Matrix: Soil

MS Sample Id: 591481-007 S

Prep Method: E300P

Date Prep: 07.12.18

MSD Sample Id: 591481-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.94	247	255	103	246	100	90-110	4	20	mg/kg	07.12.18 17:22	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3056282

Parent Sample Id: 592020-001

Matrix: Soil

MS Sample Id: 592020-001 S

Prep Method: E300P

Date Prep: 07.12.18

MSD Sample Id: 592020-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	163	248	405	98	405	98	90-110	0	20	mg/kg	07.12.18 18:47	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3056961

Parent Sample Id: 592018-006

Matrix: Soil

MS Sample Id: 592018-006 S

Prep Method: E300P

Date Prep: 07.18.18

MSD Sample Id: 592018-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	282	250	532	100	522	96	90-110	2	20	mg/kg	07.18.18 17:51	

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

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

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

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



LT Environmental, Inc.

PLU Ross Ranch 19 FED

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3056961

Parent Sample Id: 592472-001

Matrix: Soil

MS Sample Id: 592472-001 S

Prep Method: E300P

Date Prep: 07.18.18

MSD Sample Id: 592472-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	83.3	248	334	101	334	101	90-110	0	20	mg/kg	07.18.18 19:07	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3056702

MB Sample Id: 7658490-1-BLK

Matrix: Solid

LCS Sample Id: 7658490-1-BKS

Prep Method: TX1005P

Date Prep: 07.16.18

LCSD Sample Id: 7658490-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1020	102	1030	103	70-135	1	20	mg/kg	07.16.18 19:22	
Diesel Range Organics (DRO)	<15.0	1000	1040	104	1070	107	70-135	3	20	mg/kg	07.16.18 19:22	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		121		125		70-135	%	07.16.18 19:22
o-Terphenyl	109		117		117		70-135	%	07.16.18 19:22

Analytical Method: TPH by SW8015 Mod

Seq Number: 3056702

Parent Sample Id: 592018-002

Matrix: Soil

MS Sample Id: 592018-002 S

Prep Method: TX1005P

Date Prep: 07.16.18

MSD Sample Id: 592018-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	1080	108	1110	111	70-135	3	20	mg/kg	07.16.18 20:21	
Diesel Range Organics (DRO)	<15.0	999	1100	110	1100	110	70-135	0	20	mg/kg	07.16.18 20:21	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		128		70-135	%	07.16.18 20:21
o-Terphenyl	128		129		70-135	%	07.16.18 20:21

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

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

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

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



LT Environmental, Inc.

PLU Ross Ranch 19 FED

Analytical Method: BTEX by EPA 8021B

Seq Number: 3056801

MB Sample Id: 7658578-1-BLK

Matrix: Solid

LCS Sample Id: 7658578-1-BKS

Prep Method: SW5030B

Date Prep: 07.17.18

LCSD Sample Id: 7658578-1-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	0.0944	95	0.110	110	70-130	15	35	mg/kg	07.18.18 02:10	
Toluene	<0.00200	0.0998	0.0972	97	0.106	106	70-130	9	35	mg/kg	07.18.18 02:10	
Ethylbenzene	<0.00200	0.0998	0.0942	94	0.103	103	70-130	9	35	mg/kg	07.18.18 02:10	
m,p-Xylenes	<0.00399	0.200	0.195	98	0.212	105	70-130	8	35	mg/kg	07.18.18 02:10	
o-Xylene	<0.00200	0.0998	0.0908	91	0.0994	99	70-130	9	35	mg/kg	07.18.18 02:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		90		96		70-130	%	07.18.18 02:10
4-Bromofluorobenzene	102		104		101		70-130	%	07.18.18 02:10

Analytical Method: BTEX by EPA 8021B

Seq Number: 3056801

Parent Sample Id: 592472-001

Matrix: Soil

MS Sample Id: 592472-001 S

Prep Method: SW5030B

Date Prep: 07.17.18

MSD Sample Id: 592472-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0740	74	0.0723	72	70-130	2	35	mg/kg	07.18.18 02:46	
Toluene	<0.00199	0.0996	0.0693	70	0.0777	78	70-130	11	35	mg/kg	07.18.18 02:46	
Ethylbenzene	<0.00199	0.0996	0.0660	66	0.0651	65	70-130	1	35	mg/kg	07.18.18 02:46	X
m,p-Xylenes	<0.00398	0.199	0.136	68	0.136	68	70-130	0	35	mg/kg	07.18.18 02:46	X
o-Xylene	<0.00199	0.0996	0.0642	64	0.0658	66	70-130	2	35	mg/kg	07.18.18 02:46	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		97		70-130	%	07.18.18 02:46
4-Bromofluorobenzene	73		89		70-130	%	07.18.18 02:46

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

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

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

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

CHAIN OF CUSTODY

[illegible]



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

Date/ Time Received: 07/12/2018 11:00:00 AM

Work Order #: 592018

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)?	4.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Katie Lowe

Date: 07/12/2018

Checklist reviewed by:

Jessica Kramer

Date: 07/12/2018

Analytical Report 595676

for
LT Environmental, Inc.

Project Manager: Adrian Baker

PLU RR 19 Fed

23-AUG-18

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-16)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)



23-AUG-18

Project Manager: **Adrian Baker**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **595676**

PLU RR 19 Fed

Project Address: Eddy NM

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 595676. 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. 595676 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer

Project Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 595676****LT Environmental, Inc., Arvada, CO**

PLU RR 19 Fed

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW15	S	08-10-18 10:00	3 ft	595676-001
SW16	S	08-10-18 15:35	6 ft	595676-002
SW17	S	08-10-18 15:30	5 ft	595676-003
FS15	S	08-10-18 15:40	10 ft	595676-004



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU RR 19 Fed

Project ID:
Work Order Number(s): 595676

Report Date: 23-AUG-18
Date Received: 08/14/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3060904 BTEX by EPA 8021B

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



Certificate of Analysis Summary 595676

LT Environmental, Inc., Arvada, CO

Project Name: PLU RR 19 Fed



Project Id:

Contact: Adrian Baker

Project Location: Eddy NM

Date Received in Lab: Tue Aug-14-18 01:26 pm

Report Date: 23-AUG-18

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	595676-001	595676-002	595676-003	595676-004		
	<i>Field Id:</i>	SW15	SW16	SW17	FS15		
	<i>Depth:</i>	3- ft	6- ft	5- ft	10- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Aug-10-18 10:00	Aug-10-18 15:35	Aug-10-18 15:30	Aug-10-18 15:40		
BTEX by EPA 8021B	<i>Extracted:</i>	Aug-22-18 15:00	Aug-22-18 15:00	Aug-22-18 15:00	Aug-22-18 15:00		
	<i>Analyzed:</i>	Aug-22-18 21:59	Aug-22-18 22:20	Aug-22-18 22:41	Aug-22-18 23:01		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201		
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201		
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201		
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399	<0.00403 0.00403	<0.00402 0.00402		
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201		
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201		
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201		
Inorganic Anions by EPA 300	<i>Extracted:</i>	Aug-15-18 16:45	Aug-15-18 16:45	Aug-15-18 16:45	Aug-15-18 16:45		
	<i>Analyzed:</i>	Aug-15-18 21:30	Aug-15-18 21:36	Aug-15-18 21:41	Aug-15-18 21:47		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		250 49.5	382 24.8	2020 25.0	308 24.8		
TPH by SW8015 Mod	<i>Extracted:</i>	Aug-15-18 11:00	Aug-15-18 11:00	Aug-15-18 11:00	Aug-15-18 11:00		
	<i>Analyzed:</i>	Aug-15-18 17:26	Aug-15-18 17:46	Aug-15-18 18:06	Aug-15-18 18:26		
	<i>Units/RL:</i>	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	<14.9 14.9		
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<14.9 14.9		
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<14.9 14.9	<14.9 14.9		
Total TPH		<15.0 15.0	<15.0 15.0	<14.9 14.9	<14.9 14.9		

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

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analytical Results 595676



LT Environmental, Inc., Arvada, CO

PLU RR 19 Fed

Sample Id: **SW15**
Lab Sample Id: 595676-001

Matrix: Soil
Date Collected: 08.10.18 10.00

Date Received: 08.14.18 13.26
Sample Depth: 3 ft

Analytical Method: Inorganic Anions by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3060255

Date Prep: 08.15.18 16.45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	250	49.5	mg/kg	08.15.18 21.30		10

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3060224

Date Prep: 08.15.18 11.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.15.18 17.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.15.18 17.26	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.15.18 17.26	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.15.18 17.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	08.15.18 17.26	
o-Terphenyl	84-15-1	81	%	70-135	08.15.18 17.26	



Certificate of Analytical Results 595676



LT Environmental, Inc., Arvada, CO

PLU RR 19 Fed

Sample Id: **SW15**
Lab Sample Id: 595676-001

Matrix: Soil
Date Collected: 08.10.18 10.00

Date Received: 08.14.18 13.26
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.22.18 15.00

Basis: Wet Weight

Seq Number: 3060904

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.22.18 21.59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.22.18 21.59	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.22.18 21.59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.22.18 21.59	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.22.18 21.59	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.22.18 21.59	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.22.18 21.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	08.22.18 21.59		
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.22.18 21.59		



Certificate of Analytical Results 595676



LT Environmental, Inc., Arvada, CO

PLU RR 19 Fed

Sample Id: **SW16**
Lab Sample Id: 595676-002

Matrix: Soil
Date Collected: 08.10.18 15.35

Date Received: 08.14.18 13.26
Sample Depth: 6 ft

Analytical Method: Inorganic Anions by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3060255

Date Prep: 08.15.18 16.45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	382	24.8	mg/kg	08.15.18 21.36		5

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3060224

Date Prep: 08.15.18 11.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.15.18 17.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.15.18 17.46	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.15.18 17.46	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.15.18 17.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	08.15.18 17.46	
o-Terphenyl	84-15-1	86	%	70-135	08.15.18 17.46	



Certificate of Analytical Results 595676



LT Environmental, Inc., Arvada, CO

PLU RR 19 Fed

Sample Id: **SW16**
Lab Sample Id: 595676-002

Matrix: Soil
Date Collected: 08.10.18 15.35

Date Received: 08.14.18 13.26
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3060904

Date Prep: 08.22.18 15.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.22.18 22.20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.22.18 22.20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.22.18 22.20	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.22.18 22.20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.22.18 22.20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.22.18 22.20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.22.18 22.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.22.18 22.20		
1,4-Difluorobenzene	540-36-3	99	%	70-130	08.22.18 22.20		



Certificate of Analytical Results 595676



LT Environmental, Inc., Arvada, CO

PLU RR 19 Fed

Sample Id: **SW17**
Lab Sample Id: 595676-003

Matrix: Soil
Date Collected: 08.10.18 15.30

Date Received: 08.14.18 13.26
Sample Depth: 5 ft

Analytical Method: Inorganic Anions by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3060255

Date Prep: 08.15.18 16.45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2020	25.0	mg/kg	08.15.18 21.41		5

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3060224

Date Prep: 08.15.18 11.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.15.18 18.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.15.18 18.06	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	08.15.18 18.06	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.15.18 18.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	08.15.18 18.06	
o-Terphenyl	84-15-1	89	%	70-135	08.15.18 18.06	



Certificate of Analytical Results 595676



LT Environmental, Inc., Arvada, CO

PLU RR 19 Fed

Sample Id: **SW17**
Lab Sample Id: 595676-003

Matrix: Soil
Date Collected: 08.10.18 15.30

Date Received: 08.14.18 13.26
Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.22.18 15.00

Basis: Wet Weight

Seq Number: 3060904

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.22.18 22.41	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.22.18 22.41	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.22.18 22.41	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.22.18 22.41	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.22.18 22.41	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.22.18 22.41	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.22.18 22.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.22.18 22.41		
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.22.18 22.41		



Certificate of Analytical Results 595676



LT Environmental, Inc., Arvada, CO

PLU RR 19 Fed

Sample Id: **FS15**
Lab Sample Id: 595676-004

Matrix: Soil
Date Collected: 08.10.18 15.40

Date Received: 08.14.18 13.26
Sample Depth: 10 ft

Analytical Method: Inorganic Anions by EPA 300

Tech: SCM

Analyst: SCM

Seq Number: 3060255

Date Prep: 08.15.18 16.45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	308	24.8	mg/kg	08.15.18 21.47		5

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3060224

Date Prep: 08.15.18 11.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.15.18 18.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.15.18 18.26	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	08.15.18 18.26	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.15.18 18.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	08.15.18 18.26	
o-Terphenyl	84-15-1	89	%	70-135	08.15.18 18.26	



Certificate of Analytical Results 595676



LT Environmental, Inc., Arvada, CO

PLU RR 19 Fed

Sample Id: **FS15**
Lab Sample Id: 595676-004

Matrix: Soil
Date Collected: 08.10.18 15.40

Date Received: 08.14.18 13.26
Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Tech: ALJ

Analyst: ALJ

Seq Number: 3060904

Date Prep: 08.22.18 15.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.22.18 23.01	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.22.18 23.01	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.22.18 23.01	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.22.18 23.01	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.22.18 23.01	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.22.18 23.01	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.22.18 23.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.22.18 23.01		
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.22.18 23.01		



Flagging Criteria



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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

PLU RR 19 Fed

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3060255

MB Sample Id: 7660544-1-BLK

Matrix: Solid

LCS Sample Id: 7660544-1-BKS

Prep Method: E300P

Date Prep: 08.15.18

LCSD Sample Id: 7660544-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	249	100	256	102	90-110	3	20	mg/kg	08.15.18 19:19	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3060255

Parent Sample Id: 595769-001

Matrix: Soil

MS Sample Id: 595769-001 S

Prep Method: E300P

Date Prep: 08.15.18

MSD Sample Id: 595769-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	364	250	600	94	604	96	90-110	1	20	mg/kg	08.15.18 19:35	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3060255

Parent Sample Id: 595769-002

Matrix: Soil

MS Sample Id: 595769-002 S

Prep Method: E300P

Date Prep: 08.15.18

MSD Sample Id: 595769-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	93.7	249	349	103	355	105	90-110	2	20	mg/kg	08.15.18 20:52	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3060224

MB Sample Id: 7660477-1-BLK

Matrix: Solid

LCS Sample Id: 7660477-1-BKS

Prep Method: TX1005P

Date Prep: 08.15.18

LCSD Sample Id: 7660477-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	882	88	969	97	70-135	9	20	mg/kg	08.15.18 14:07	
Diesel Range Organics (DRO)	<15.0	1000	914	91	962	96	70-135	5	20	mg/kg	08.15.18 14:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	89		126		112		70-135	%	08.15.18 14:07
o-Terphenyl	90		98		93		70-135	%	08.15.18 14:07

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

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

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

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



LT Environmental, Inc.

PLU RR 19 Fed

Analytical Method: TPH by SW8015 Mod

Seq Number: 3060224

Parent Sample Id: 595675-001

Matrix: Soil

MS Sample Id: 595675-001 S

Prep Method: TX1005P

Date Prep: 08.15.18

MSD Sample Id: 595675-001 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)	37.3	1000	885	85	891	85	70-135	1	20	mg/kg	08.15.18 15:06	
Diesel Range Organics (DRO)	298	1000	1240	94	1230	93	70-135	1	20	mg/kg	08.15.18 15:06	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		108		70-135	%	08.15.18 15:06
o-Terphenyl	95		95		70-135	%	08.15.18 15:06

Analytical Method: BTEX by EPA 8021B

Seq Number: 3060904

MB Sample Id: 7660920-1-BLK

Matrix: Solid

LCS Sample Id: 7660920-1-BKS

Prep Method: SW5030B

Date Prep: 08.22.18

LCSD Sample Id: 7660920-1-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	0.0957	96	0.0970	97	70-130	1	35	mg/kg	08.22.18 10:36	
Toluene	<0.00200	0.0998	0.0911	91	0.0937	94	70-130	3	35	mg/kg	08.22.18 10:36	
Ethylbenzene	<0.00200	0.0998	0.100	100	0.104	104	70-130	4	35	mg/kg	08.22.18 10:36	
m,p-Xylenes	<0.00399	0.200	0.216	108	0.234	116	70-130	8	35	mg/kg	08.22.18 10:36	
o-Xylene	<0.00200	0.0998	0.103	103	0.112	112	70-130	8	35	mg/kg	08.22.18 10:36	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		104		112		70-130	%	08.22.18 10:36
4-Bromofluorobenzene	92		100		104		70-130	%	08.22.18 10:36

Analytical Method: BTEX by EPA 8021B

Seq Number: 3060904

Parent Sample Id: 595901-001

Matrix: Soil

MS Sample Id: 595901-001 S

Prep Method: SW5030B

Date Prep: 08.22.18

MSD Sample Id: 595901-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0677	67	0.0655	66	70-130	3	35	mg/kg	08.22.18 12:08	X
Toluene	<0.00202	0.101	0.0655	65	0.0622	62	70-130	5	35	mg/kg	08.22.18 12:08	X
Ethylbenzene	<0.00202	0.101	0.0684	68	0.0647	65	70-130	6	35	mg/kg	08.22.18 12:08	X
m,p-Xylenes	<0.00403	0.202	0.143	71	0.137	69	70-130	4	35	mg/kg	08.22.18 12:08	X
o-Xylene	<0.00202	0.101	0.0673	67	0.0632	63	70-130	6	35	mg/kg	08.22.18 12:08	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		129		70-130	%	08.22.18 12:08
4-Bromofluorobenzene	106		110		70-130	%	08.22.18 12:08

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

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

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

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



Setting the Standard since 1990
Stafford, Texas (281-240-4200)
Dallas Texas (214-902-0300)

San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

CHAIN OF CUSTODY

Page 1 of 1

Client / Reporting Information		Project Information		Analytical Information		Matrix Codes	
Company Name / Branch: <u>LT Environmental, Inc. Perian</u>		Project Name/Number: <u>PLU RE 19 Fed</u>		<div style="border: 1px solid black; padding: 5px;"> W = Water S = Soil/Sed/Solid GW = Ground Water DW = Drinking Water P = Product SW = Surface water SL = Sludge OW = Ocean/Sea Water WI = Waste O = Oil WM = Waste Water A = Air </div>		<div style="border: 1px solid black; padding: 5px;"> 595676 </div>	
Company Address: <u>3300 N 1st Building, Unit #103, Millerville TN 37165</u>		Project Location: <u>Endy NM -</u>					
Email: <u>adrian@ltenv.com</u> Phone No: <u>432-794-5178</u>		Invoice To: <u>Endy NM -</u>					
Project Contact: <u>Adrian Baker</u>		PO Number: <u>XT-0 Energy - Kyle Little</u>					
Sampler's Name: <u>Yvonne Landeck</u>							

No.	Field ID / Point of Collection	Collection		Number of Assays per Matrix										Field Comments				
		Sample Depth	Date / Time	Matrix	# of bottles	Cl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE					
1	SW15	3'	08/10/18 10:00	S	1													
2	SW16	6'	15:35	S	1													
3	SW17	5'	15:30	S	1													
4	ES15	10'	15:40	S	1													
5																		
6																		
7																		
8																		
9																		
10																		

Turnaround Time (Business days)		Data Deliverable Information		Notes:	
<input type="checkbox"/> Same Day TAT	<input type="checkbox"/> 5 Day TAT	<input type="checkbox"/> Level II Std QC	<input type="checkbox"/> Level IV (Full Data Pig / raw data)		
<input type="checkbox"/> Next Day EMERGENCY	<input type="checkbox"/> 7 Day TAT	<input type="checkbox"/> Level III Std QC + Forms	<input type="checkbox"/> TRRP Level IV		
<input type="checkbox"/> 2 Day EMERGENCY	<input checked="" type="checkbox"/> Contract TAT	<input type="checkbox"/> Level 3 (CLP Forms)	<input type="checkbox"/> UST / RG -411		
<input type="checkbox"/> 3 Day EMERGENCY		<input type="checkbox"/> TRRP Checklist			

TAT Starts Day received by Lab, if received by 5:00 pm				FED-EX / UPS: Tracking # <u>7729 6468 6598</u>			
Relinquished by Sample: <u>[Signature]</u> Date Time: <u>08/13/18 10:35</u>				Relinquished by: <u>[Signature]</u> Date Time: <u>08/13/18 15:30</u>			
Relinquished by: <u>[Signature]</u> Date Time: <u>08/13/18 10:35</u>				Relinquished by: <u>[Signature]</u> Date Time: <u>08/14/18 13:20</u>			
Relinquished by: <u>[Signature]</u> Date Time: <u>08/13/18 10:35</u>				Relinquished by: <u>[Signature]</u> Date Time: <u>08/14/18 13:20</u>			
Relinquished by: <u>[Signature]</u> Date Time: <u>08/13/18 10:35</u>				Relinquished by: <u>[Signature]</u> Date Time: <u>08/14/18 13:20</u>			

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

ORIGIN ID:MAFA (806) 794-1296 XENCO XENCO 1211 W. FLORIDA AVE MIDLAND, TX 79701 UNITED STATES US		SHIP DATE: 13AUG18 ACTWGT: 25.00 LB CAD: 101813706/NET4040 DIMS: 26x14x14 IN
TO XENCO XENCO 1211 W. FLORIDA AVE MIDLAND TX 79701 (806) 794-1296 REF: INV: PO:		DEPT:
552J1.0309/DCA5		

TRK# 7729 6468 6598 0201	TUE - 14 AUG 3:00P STANDARD OVERNIGHT
41 MAFA TX:US LBB 79701	

	
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Client: LT Environmental, Inc.

Date/ Time Received: 08/14/2018 01:26:00 PM

Work Order #: 595676

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)?	4.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Shawnee Gomez

Date: 08/14/2018

Checklist reviewed by:

Jessica Kramer

Date: 08/14/2018

Analytical Report 611644

for
LT Environmental, Inc.

Project Manager: Adrian Baker

Poker Lake Unit RR 19 Battery

21-JAN-19

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

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

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

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



21-JAN-19

Project Manager: **Adrian Baker**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **611644**

Poker Lake Unit RR 19 Battery

Project Address: Delaware Basin

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 611644. 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. 611644 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer

Project Assistant

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

Certified and approved by numerous States and Agencies.

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

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

**Sample Cross Reference 611644****LT Environmental, Inc., Arvada, CO**

Poker Lake Unit RR 19 Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	01-15-19 10:40	0.5 - 10 ft	611644-001
SW02	S	01-15-19 10:45	0.5 - 10 ft	611644-002
SW03	S	01-15-19 10:50	0.5 - 12 ft	611644-003
SW06	S	01-15-19 10:55	0.5 - 10.5 ft	611644-004



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Poker Lake Unit RR 19 Battery

Project ID:

Work Order Number(s): 611644

Report Date: 21-JAN-19

Date Received: 01/17/2019

Sample receipt non conformances and comments:

Per clients email, corrected sample depths. NEW VERSION GENERATED. 01/21/19 JK

SW03 0.2-12'

SW06 0.5-10.5'

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3076200 BTEX by EPA 8021B

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



Certificate of Analysis Summary 611644

LT Environmental, Inc., Arvada, CO

Project Name: Poker Lake Unit RR 19 Battery



Project Id:

Contact: Adrian Baker

Project Location: Delaware Basin

Date Received in Lab: Thu Jan-17-19 12:05 pm

Report Date: 21-JAN-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	611644-001	611644-002	611644-003	611644-004		
	<i>Field Id:</i>	SW01	SW02	SW03	SW06		
	<i>Depth:</i>	0.5-10 ft	0.5-10 ft	0.5-12 ft	0.5-10.5 ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Jan-15-19 10:40	Jan-15-19 10:45	Jan-15-19 10:50	Jan-15-19 10:55		
BTEX by EPA 8021B	<i>Extracted:</i>	Jan-17-19 16:00	Jan-17-19 16:00	Jan-17-19 16:00	Jan-17-19 16:00		
	<i>Analyzed:</i>	Jan-18-19 01:49	Jan-18-19 02:08	Jan-18-19 02:27	Jan-18-19 02:46		
	<i>Units/RL:</i>	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	<0.00199 0.00199		
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199		
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199		
m,p-Xylenes		<0.00398 0.00398	<0.00400 0.00400	<0.00402 0.00402	<0.00398 0.00398		
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199		
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199		
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199		
Inorganic Anions by EPA 300	<i>Extracted:</i>	Jan-17-19 16:00	Jan-17-19 16:00	Jan-17-19 16:00	Jan-17-19 16:00		
	<i>Analyzed:</i>	Jan-17-19 23:55	Jan-18-19 00:01	Jan-18-19 00:08	Jan-18-19 00:29		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		610 49.5	305 24.8	162 49.8	56.9 49.9		
TPH by SW8015 Mod	<i>Extracted:</i>	Jan-18-19 08:30	Jan-18-19 08:30	Jan-18-19 08:30	Jan-18-19 08:30		
	<i>Analyzed:</i>	Jan-18-19 11:43	Jan-18-19 12:43	Jan-18-19 13:03	Jan-18-19 13:23		
	<i>Units/RL:</i>	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		
Diesel Range Organics (DRO)		<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		
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		

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

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

Version: 1.9%

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analytical Results 611644



LT Environmental, Inc., Arvada, CO

Poker Lake Unit RR 19 Battery

Sample Id: **SW01**
 Lab Sample Id: 611644-001

Matrix: Soil
 Date Collected: 01.15.19 10.40

Date Received: 01.17.19 12.05
 Sample Depth: 0.5 - 10 ft

Analytical Method: Inorganic Anions by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 01.17.19 16.00

Basis: Wet Weight

Seq Number: 3076282

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	610	49.5	mg/kg	01.17.19 23.55		10

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 01.18.19 08.30

Basis: Wet Weight

Seq Number: 3076301

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	01.18.19 11.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	01.18.19 11.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	01.18.19 11.43	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	01.18.19 11.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	01.18.19 11.43	
o-Terphenyl	84-15-1	87	%	70-135	01.18.19 11.43	



Certificate of Analytical Results 611644



LT Environmental, Inc., Arvada, CO

Poker Lake Unit RR 19 Battery

Sample Id: **SW01**
Lab Sample Id: 611644-001

Matrix: Soil
Date Collected: 01.15.19 10.40

Date Received: 01.17.19 12.05
Sample Depth: 0.5 - 10 ft

Analytical Method: BTEX by EPA 8021B

Tech: SCM

Analyst: SCM

Seq Number: 3076200

Date Prep: 01.17.19 16.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.18.19 01.49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.18.19 01.49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.18.19 01.49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.18.19 01.49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.18.19 01.49	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.18.19 01.49	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.18.19 01.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	01.18.19 01.49		
1,4-Difluorobenzene	540-36-3	112	%	70-130	01.18.19 01.49		



Certificate of Analytical Results 611644



LT Environmental, Inc., Arvada, CO

Poker Lake Unit RR 19 Battery

Sample Id: **SW02**
Lab Sample Id: 611644-002

Matrix: Soil
Date Collected: 01.15.19 10.45

Date Received: 01.17.19 12.05
Sample Depth: 0.5 - 10 ft

Analytical Method: Inorganic Anions by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3076282

Date Prep: 01.17.19 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	305	24.8	mg/kg	01.18.19 00.01		5

Analytical Method: TPH by SW8015 Mod

Tech: ALJ

Analyst: ALJ

Seq Number: 3076301

Date Prep: 01.18.19 08.30

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	01.18.19 12.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	01.18.19 12.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	01.18.19 12.43	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	01.18.19 12.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	01.18.19 12.43	
o-Terphenyl	84-15-1	91	%	70-135	01.18.19 12.43	



Certificate of Analytical Results 611644



LT Environmental, Inc., Arvada, CO

Poker Lake Unit RR 19 Battery

Sample Id: **SW02**
Lab Sample Id: 611644-002

Matrix: Soil
Date Collected: 01.15.19 10.45

Date Received: 01.17.19 12.05
Sample Depth: 0.5 - 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 01.17.19 16.00

Basis: Wet Weight

Seq Number: 3076200

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.18.19 02.08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.18.19 02.08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.18.19 02.08	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	01.18.19 02.08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.18.19 02.08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.18.19 02.08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.18.19 02.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	01.18.19 02.08		
1,4-Difluorobenzene	540-36-3	110	%	70-130	01.18.19 02.08		



Certificate of Analytical Results 611644



LT Environmental, Inc., Arvada, CO

Poker Lake Unit RR 19 Battery

Sample Id: **SW03**
Lab Sample Id: 611644-003

Matrix: Soil
Date Collected: 01.15.19 10.50

Date Received: 01.17.19 12.05
Sample Depth: 0.5 - 12 ft

Analytical Method: Inorganic Anions by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3076282

Date Prep: 01.17.19 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	162	49.8	mg/kg	01.18.19 00.08		10

Analytical Method: TPH by SW8015 Mod

Tech: ALJ

Analyst: ALJ

Seq Number: 3076301

Date Prep: 01.18.19 08.30

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	01.18.19 13.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	01.18.19 13.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	01.18.19 13.03	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	01.18.19 13.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	01.18.19 13.03	
o-Terphenyl	84-15-1	107	%	70-135	01.18.19 13.03	



Certificate of Analytical Results 611644



LT Environmental, Inc., Arvada, CO

Poker Lake Unit RR 19 Battery

Sample Id: **SW03**

Matrix: Soil

Date Received: 01.17.19 12.05

Lab Sample Id: 611644-003

Date Collected: 01.15.19 10.50

Sample Depth: 0.5 - 12 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 01.17.19 16.00

Basis: Wet Weight

Seq Number: 3076200

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.18.19 02.27	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.18.19 02.27	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.18.19 02.27	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.18.19 02.27	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.18.19 02.27	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.18.19 02.27	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.18.19 02.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	115	%	70-130	01.18.19 02.27		
4-Bromofluorobenzene	460-00-4	114	%	70-130	01.18.19 02.27		



Certificate of Analytical Results 611644



LT Environmental, Inc., Arvada, CO

Poker Lake Unit RR 19 Battery

Sample Id: **SW06**
Lab Sample Id: 611644-004

Matrix: Soil
Date Collected: 01.15.19 10.55

Date Received: 01.17.19 12.05
Sample Depth: 0.5 - 10.5 ft

Analytical Method: Inorganic Anions by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3076282

Date Prep: 01.17.19 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	56.9	49.9	mg/kg	01.18.19 00.29		10

Analytical Method: TPH by SW8015 Mod

Tech: ALJ

Analyst: ALJ

Seq Number: 3076301

Date Prep: 01.18.19 08.30

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	01.18.19 13.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	01.18.19 13.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	01.18.19 13.23	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	01.18.19 13.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	01.18.19 13.23	
o-Terphenyl	84-15-1	94	%	70-135	01.18.19 13.23	



Certificate of Analytical Results 611644



LT Environmental, Inc., Arvada, CO

Poker Lake Unit RR 19 Battery

Sample Id: **SW06**
Lab Sample Id: 611644-004

Matrix: Soil
Date Collected: 01.15.19 10.55

Date Received: 01.17.19 12.05
Sample Depth: 0.5 - 10.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: SCM

Analyst: SCM

Seq Number: 3076200

Date Prep: 01.17.19 16.00

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.18.19 02.46	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.18.19 02.46	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.18.19 02.46	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.18.19 02.46	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.18.19 02.46	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.18.19 02.46	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.18.19 02.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	115	%	70-130	01.18.19 02.46		
4-Bromofluorobenzene	460-00-4	116	%	70-130	01.18.19 02.46		



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 **SQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Poker Lake Unit RR 19 Battery

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3076282

MB Sample Id: 7669955-1-BLK

Matrix: Solid

LCS Sample Id: 7669955-1-BKS

Prep Method: E300P

Date Prep: 01.17.19

LCSD Sample Id: 7669955-1-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	248	99	246	98	90-110	1	20	mg/kg	01.17.19 23:18	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3076282

Parent Sample Id: 611567-003

Matrix: Soil

MS Sample Id: 611567-003 S

Prep Method: E300P

Date Prep: 01.17.19

MSD Sample Id: 611567-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	30.4	249	272	97	267	95	90-110	2	20	mg/kg	01.18.19 01:06	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3076282

Parent Sample Id: 611646-001

Matrix: Soil

MS Sample Id: 611646-001 S

Prep Method: E300P

Date Prep: 01.17.19

MSD Sample Id: 611646-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	371	248	565	78	586	87	90-110	4	20	mg/kg	01.17.19 23:37	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3076301

MB Sample Id: 7670031-1-BLK

Matrix: Solid

LCS Sample Id: 7670031-1-BKS

Prep Method: TX1005P

Date Prep: 01.18.19

LCSD Sample Id: 7670031-1-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	810	81	812	81	70-135	0	20	mg/kg	01.18.19 11:03	
Diesel Range Organics (DRO)	<8.13	1000	889	89	897	90	70-135	1	20	mg/kg	01.18.19 11:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	88		125		124		70-135	%	01.18.19 11:03
o-Terphenyl	89		121		120		70-135	%	01.18.19 11:03

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

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

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

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



LT Environmental, Inc.
Poker Lake Unit RR 19 Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3076301

Parent Sample Id: 611644-001

Matrix: Soil

MS Sample Id: 611644-001 S

Prep Method: TX1005P

Date Prep: 01.18.19

MSD Sample Id: 611644-001 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)	<8.00	1000	939	94	844	84	70-135	11	20	mg/kg	01.18.19 12:03	
Diesel Range Organics (DRO)	13.1	1000	1020	101	936	92	70-135	9	20	mg/kg	01.18.19 12:03	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	130		118		70-135	%	01.18.19 12:03
o-Terphenyl	126		109		70-135	%	01.18.19 12:03

Analytical Method: BTEX by EPA 8021B

Seq Number: 3076200

MB Sample Id: 7669975-1-BLK

Matrix: Solid

LCS Sample Id: 7669975-1-BKS

Prep Method: SW5030B

Date Prep: 01.17.19

LCSD Sample Id: 7669975-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000387	0.101	0.126	125	0.124	124	70-130	2	35	mg/kg	01.17.19 23:57	
Toluene	<0.000458	0.101	0.109	108	0.107	107	70-130	2	35	mg/kg	01.17.19 23:57	
Ethylbenzene	<0.000568	0.101	0.100	99	0.0978	98	70-130	2	35	mg/kg	01.17.19 23:57	
m,p-Xylenes	<0.00102	0.201	0.200	100	0.194	97	70-130	3	35	mg/kg	01.17.19 23:57	
o-Xylene	<0.000346	0.101	0.0994	98	0.0968	97	70-130	3	35	mg/kg	01.17.19 23:57	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		108		109		70-130	%	01.17.19 23:57
4-Bromofluorobenzene	94		108		109		70-130	%	01.17.19 23:57

Analytical Method: BTEX by EPA 8021B

Seq Number: 3076200

Parent Sample Id: 611644-001

Matrix: Soil

MS Sample Id: 611644-001 S

Prep Method: SW5030B

Date Prep: 01.17.19

MSD Sample Id: 611644-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000386	0.100	0.0962	96	0.102	102	70-130	6	35	mg/kg	01.18.19 00:35	
Toluene	<0.000457	0.100	0.0842	84	0.0899	90	70-130	7	35	mg/kg	01.18.19 00:35	
Ethylbenzene	<0.000566	0.100	0.0756	76	0.0816	82	70-130	8	35	mg/kg	01.18.19 00:35	
m,p-Xylenes	<0.00102	0.200	0.152	76	0.164	82	70-130	8	35	mg/kg	01.18.19 00:35	
o-Xylene	<0.000345	0.100	0.0756	76	0.0821	82	70-130	8	35	mg/kg	01.18.19 00:35	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		109		70-130	%	01.18.19 00:35
4-Bromofluorobenzene	110		109		70-130	%	01.18.19 00:35

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:

Bellevue

Houston, TX (281) 240-4200 Dallas, TX (214) 902-3300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 275-3927
Hobbs, NM (575-392-7550)

www.xenco.com

Page 2 of 2

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

Work Order Comments			
Program: UST/PST	<input type="checkbox"/> RP	<input type="checkbox"/> Rowfields	<input type="checkbox"/> C <input type="checkbox"/> perfund <input type="checkbox"/>
State of Project:			
Reporting: Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> ST/UST	<input type="checkbox"/> RP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD	<input type="checkbox"/> ADAPT	<input type="checkbox"/>	Other: <input type="checkbox"/>

Project Name:		Poker Lake Unit RR 19 Battery		Turn Around		ANALYSIS REQUEST	Work Order Notes
Project Number:				Routine <input type="checkbox"/> Rush: SAME DAY			
P.O. Number:		ZRP-4706		Due Date:			
Sampler's Name:		Anna Byers					
SAMPLE RECEIPT		Temp Blank:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Temperature (°C):		6.5/10.2		Thermometer: <i>PE</i>			
Received Intact:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Cooler Custody Seals:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		Correction Factor:			
Sample Custody Seals:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		Total Containers:			
Number of Containers							
(PA 8015)							
(PA 8021)							
(EPA 300.0)							
TAT starts the day received by the lab, if received by 4:30pm							

[illegible]

Total 200.7 / 6010	200.8 / 6020:	
8RCRA 13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
		1631 / 245 / 17470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	11/16/2015	2 <i>[Signature]</i>	<i>[Signature]</i>	11/17/2015
3 <i>[Signature]</i>	<i>[Signature]</i>		4 <i>[Signature]</i>		
5			6		

ORIGIN ID:CAOA	(575) 887-6245	SHIP DATE: 16JAN19
XENCO		ACTWTG: 46.00 LB
PAC N MAIL		CAD: 101813706/INET 4040
910 W PIERCE ST		DIMS: 25x15x14 IN
CARLSBAD, NM 88220		BILL RECIPIENT
UNITED STATES US		
TO HOLD FOR XENCO		
FEDEX EXPRESS SHIP CENTER		
FEDEX SHIP CENTER		
3600 COUNTY RD 1276 S		
MIDLAND TX 79711		
(806) 794-1296	REF:	
PO:	DEPT:	
		
		
J182118001501uv		
TRK#	THU - 17 JAN HOLD	
0201	7742 1331 2281	
	STANDARD OVERNIGHT	
	HLD	
41 MAFA	MAFA	
	TX-US	
	LBB	
		

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

Date/ Time Received: 01/17/2019 12:05:00 PM

Work Order #: 611644

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist**Comments**

#1 *Temperature of cooler(s)?	.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	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: 01/17/2019

Checklist reviewed by:

Jessica Kramer


Date: 01/18/2019

ATTACHMENT 3: PHOTOGRAPHIC LOG






Northwest facing view of the excavation.

Project: 012918103	XTO Energy, Inc. Poker Lake Unit CVX JV RR #003H/Poker Lake Unit Ross Ranch 19 Battery	 <i>Advancing Opportunity</i>
January 15, 2019	Photographic Log	




Southeast facing view of the excavation.

Project: 012918103	XTO Energy, Inc. Poker Lake Unit CVX JV RR #003H/Poker Lake Unit Ross Ranch 19 Battery	 Advancing Opportunity
January 15, 2019	Photographic Log	



View of the lined tank battery containment.

Project: 012918103	XTO Energy, Inc. Poker Lake Unit CVX JV RR #003H/Poker Lake Unit Ross Ranch 19 Battery	 Advancing Opportunity
January 15, 2019	Photographic Log	

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 190454

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 190454
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
bhall	Site must meet the requirements of 19.15.29.13 NMAC at time of plugging and abandonment.	2/24/2023