

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	NRM2004446696
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

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

### Location of Release Source

Latitude 32.21275 Longitude -103.9143  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Poker Lake Unit 213 SWD	Site Type	SWD
Date Release Discovered	01-28-20	API# (if applicable)	30-015-33859 (Poker Lake Unit #213)

Unit Letter	Section	Township	Range	County
P	18	24S	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 type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 140	Volume Recovered (bbls) 140
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input 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: An 8" fiberglass equalizing line separated resulting in a release of 140 barrels of produced water into impermeable containment of which 140 barrels were recovered. A 48-hour advance notice of liner inspection was provided by email to NMOCD District 2. The liner was visually inspected and the inspector determined the liner is insufficient. A third part contractor will be retained to complete delineation activities under the liner.

Form C-141

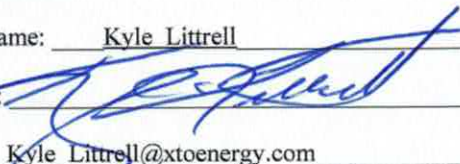
State of New Mexico  
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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?  An unauthorized release of fluid over 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes by Amy Ruth to Mike Bratcher; Rob Hamlet; Victoria Venegas; blm_nm_cfo_spill@blm.gov; Crisha Morgan; 'Griswold, Jim, EMNRD' via email on Tuesday, January 28, 2020 at 9:44 AM	

**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:  N/A	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Kyle Littrell</u>	Title: <u>SH&amp;E Supervisor</u>
Signature: 	Date: <u>2/11/2020</u>
email: <u>Kyle_Littrell@xtoenergy.com</u>	Telephone: _____
<b><u>OCD Only</u></b>	
Received by: <u>Ramona Marcus</u>	Date: <u>02/13/2020</u>

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## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 _____ (ft bgs)
Did this release impact groundwater or surface water?	<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 <b>not</b> 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.

State of New Mexico  
Oil Conservation Division

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

Printed Name: Kyle Littrell Title: SH&E Supervisor  
Signature:  Date: 04/16/2020  
email: Kyle\_Littrell@xtoenergy.com Telephone: (432) 221-7331

**OCD Only**

Received by: Cristina Eads Date: 04/21/2020



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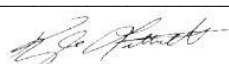
## Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor  
Signature:  Date: 04/16/2020  
email: Kyle\_Littrell@xtoenergy.com Telephone: (432) 221-7331

**OCD Only**

Received by: Cristina Eads Date: 04/21/2020

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: 07/02/2020  
Printed Name: Cristina Eads Title: Environmental Specialist



LT Environmental, Inc.

3300 North "A" Street  
Building 1, Unit 222  
Midland, Texas 79705  
432.704.5178

April 16, 2020

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

**RE: Closure Request  
Poker Lake Unit 213 SWD  
Incident Number: NRM2004446696  
Eddy County, New Mexico**

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment and soil sampling activities at the Poker Lake Unit 213 Saltwater Disposal (SWD) – Nash Draw 19 SWD (Site) in Unit P, Section 18, Township 24 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to confirm the presence or absence of impact to soil by a release of produced water at the Site. Based on field observations, field screening, and laboratory analytical results from soil sampling activities, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Number NRM2004446696.

### RELEASE BACKGROUND

On January 28, 2020, an 8-inch fiberglass line separated, resulting in the release of 140 barrels (bbls) of produced water inside a poly-lined tank battery containment. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids, of which approximately 140 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on February 11, 2020. A 48-hour advance notice of liner inspection was provided via email to NMOCD District 2 and, upon inspection, the liner was determined to be insufficient.

### SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 321321103544101, located approximately 0.7 miles north of the Site. The groundwater well has



a reported depth to groundwater of 168 feet bgs, total well depth is not determined. There are two NMOSE wells and three USGS wells within 1.3 miles with depth to water data that indicates regional depth to water is greater than 100 feet bgs. USGS well 321321103544101 and 321205103544701 were both most recently sampled in January 1998. USGS well 321321103544101 is located 0.7 miles north of the Site and had a reported depth to water of 168 feet bgs. USGS well 321205103544701, located 0.75 miles south of the Site had a reported depth to water of 231 feet bgs. Based on this depth to water data, it is highly likely that depth to water at the Site is between 168 feet bgs and 231 feet bgs. The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash, located approximately 498 feet east of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area).

## CLOSURE CRITERIA

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

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

## SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

On March 6, 2020, LTE evaluated the release based on information provided on the Form C-141 and visual observations. LTE personnel advanced a borehole via hand-auger at one location within the tank battery containment, located on the southwest edge of the caliche well pad. Site assessment activities and vertical delineation soil sampling was completed at the location of the tear in the liner found during the liner integrity inspection conducted by XTO. Two soil samples were collected at approximately 0.5 feet and 3 feet bgs (BH01 and BH01A, respectively). Soil from the discrete borehole soil samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each sample were documented on a lithologic/soil sampling log and are included as Attachment 1. The borehole was backfilled with the soil removed and XTO repaired the liner. The borehole delineation soil sample location



Bratcher, M.  
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is depicted on Figure 2. Photographic documentation was conducted during the Site visit. The photographic log is included in Attachment 2.

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

### ANALYTICAL RESULTS

Laboratory analytical results for delineation soil samples BH01 and BH01A, collected at depths of approximately 0.5 feet and 3 feet bgs, respectively, indicated benzene, BTEX, TPH-GRO and TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are presented on Figure 2 and summarized in Table 1. The complete laboratory analytical reports are included as Attachment 3.

### CLOSURE REQUEST

Following the failed liner integrity inspection, LTE personnel advanced one borehole in the location of the hole in the compromised liner. Delineation soil samples BH01 and BH01A were collected from within the lined tank battery containment at depths of approximately 0.5 feet and 3 feet bgs to assess for the presence or absence of soil impacts as a result of the January 28, 2020 produced water release. Laboratory analytical results indicated benzene, BTEX, TPH-GRO and TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in soil samples BH01 and BH01A. The liner was subsequently repaired. As such, XTO respectfully requests NFA for Incident Number NRM2004446696.

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

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink that reads 'Elizabeth Naka'.

Elizabeth A. Naka  
Staff Environmental Scientist

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

Ashley L. Ager, P.G.  
Senior Geologist





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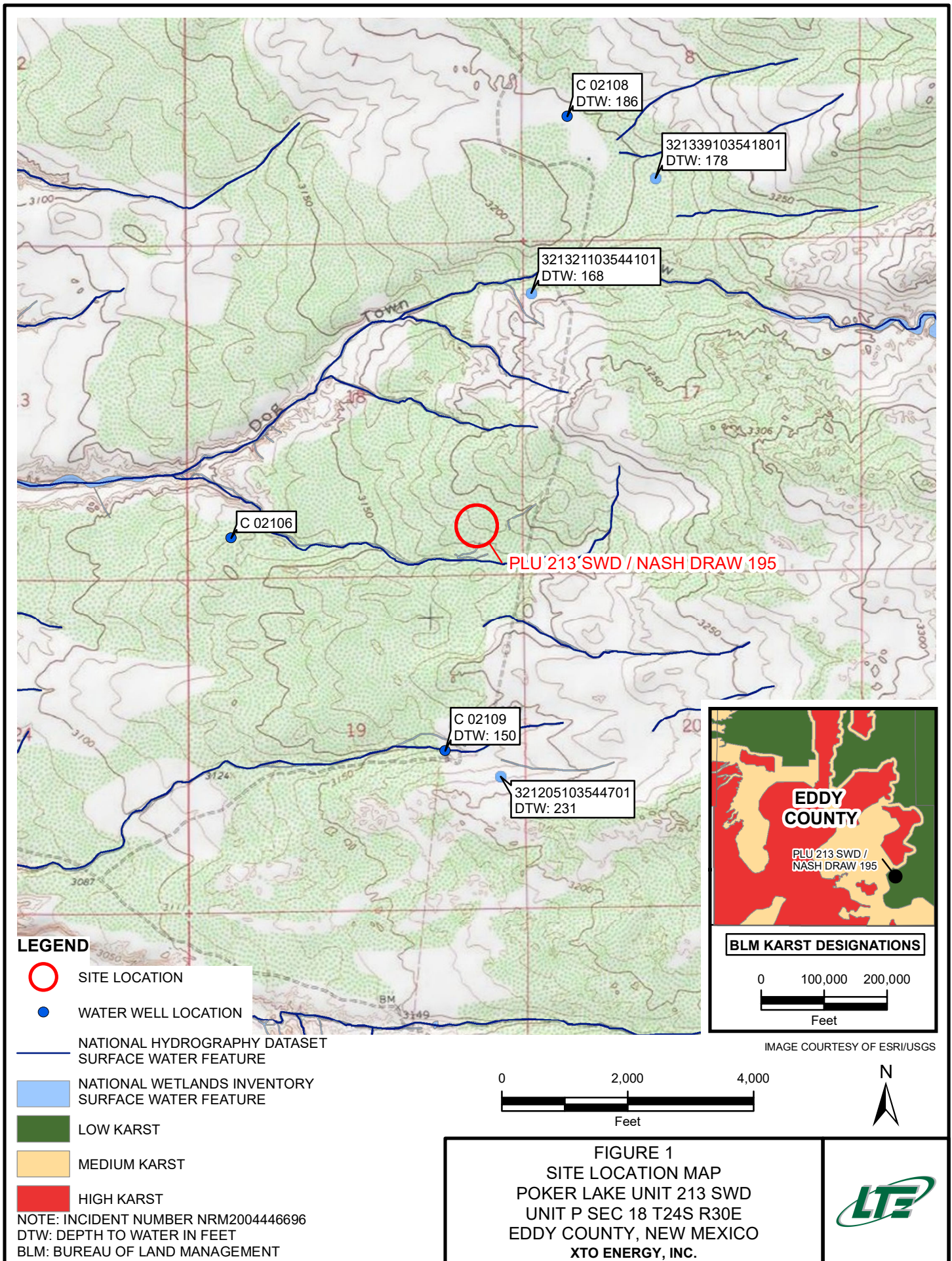
cc: Kyle Littrell, XTO  
United States Bureau of Land Management – New Mexico  
Robert Hamlet, NMOCD  
Victoria Venegas, NMOCD

Attachments:

Figure 1 Site Receptor Map  
Figure 2 Delineation Soil Sample Locations  
Table 1 Soil Analytical Results  
Attachment 1 Lithologic/Soil Sampling Logs  
Attachment 2 Photographic Log  
Attachment 3 Laboratory Analytical Reports

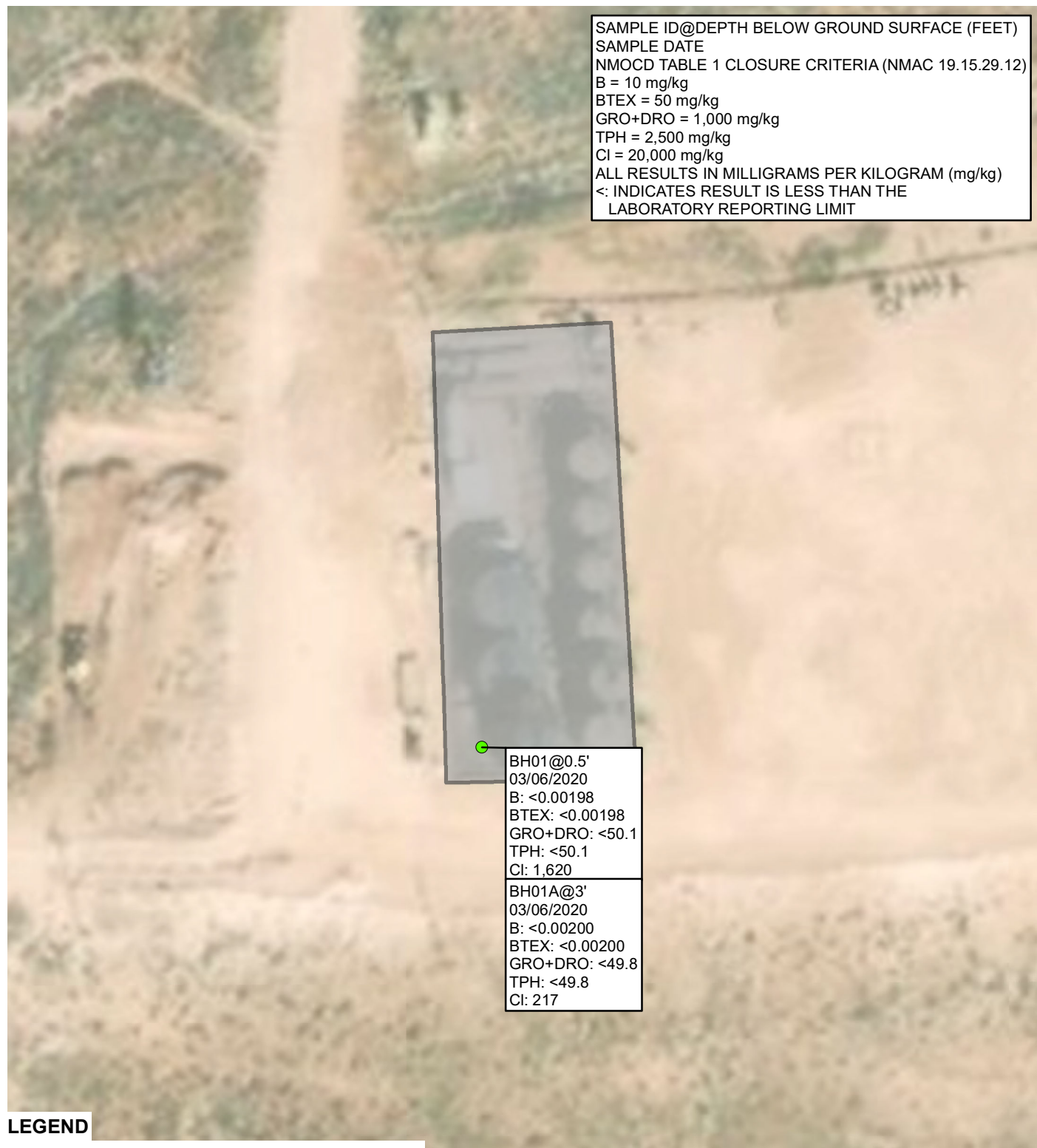
FIGURES







SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)  
 SAMPLE DATE  
 NMOCD TABLE 1 CLOSURE CRITERIA (NMAC 19.15.29.12)  
 B = 10 mg/kg  
 BTEX = 50 mg/kg  
 GRO+DRO = 1,000 mg/kg  
 TPH = 2,500 mg/kg  
 Cl = 20,000 mg/kg  
 ALL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)  
 <: INDICATES RESULT IS LESS THAN THE  
 LABORATORY REPORTING LIMIT

**LEGEND**

● DELINEATION SOIL SAMPLE IN COMPLIANCE  
 WITH APPLICABLE CLOSURE CRITERIA

■ CONTAINMENT

B: BENZENE

BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE,  
 AND TOTAL XYLENES

GRO: GASOLINE RANGE ORGANICS

DRO: DIESEL RANGE ORGANICS

TPH: TOTAL PETROLEUM HYDROCARBONS

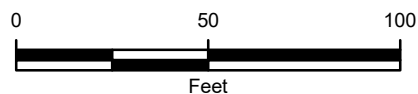
Cl: CHLORIDE

NMAC: NEW MEXICO ADMINISTRATIVE CODE

NMOCD: NEW MEXICO OIL CONSERVATION DIVISION

NOTE: INCIDENT NUMBER NRM2004446696

IMAGE COURTESY OF ESRI



**FIGURE 2**  
 DELINEATION SOIL SAMPLE LOCATIONS  
 POKER LAKE UNIT 213 SWD  
 UNIT P SEC 18 T24S R30E  
 EDDY COUNTY, NEW MEXICO  
**XTO ENERGY, INC.**



TABLES





**TABLE 1  
SOIL ANALYTICAL RESULTS**

**Poker Lake Unit 213 SWD  
REMEDATION PERMIT NUMBER NOT ASSIGNED  
EDDY COUNTY, NEW MEXICO  
XTO ENERGY, INC.**

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table 1 Closure Criteria</b>			<b>10</b>	NE	NE	NE	<b>50</b>	NE	NE	NE	<b>1,000</b>	<b>2,500</b>	<b>20,000</b>
BH01	0.5	03/06/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	1,620
BH01A	3	03/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	217

**Notes:**

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

MRO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

TPH - total petroleum hydrocarbons

**Bold** - indicates result exceeds the applicable regulatory standard

&lt; - indicates result is below laboratory reporting limits

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

NE - not established

ATTACHMENT 1: LITHOLOGIC / SOIL SAMPLING LOGS





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

A proud member  
of WSP

Compliance · Engineering · Remediation

BH or PH Name:

BH01

Date:

03/06/20

Site Name: PLU 213 SWD

RP or Incident Number:

LTE Job Number:

# LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Chloride, PID

Logged By: Robert M.

Method: Hand Auger

Hole Diameter: 3"

Total Depth:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	1680	1.9	N		0.5'	0	S	CHCE/SP-SM Brown/tan
M	200	0.8	N		1'	1	S	SP-SM Dark Brown/Brown small round grain
M	200	0.8	N		2'	2	S	
M	280	0.8	N		3'	3	S	
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

Refusal

ATTACHMENT 2: PHOTOGRAPHIC LOG



## PHOTOGRAPHIC LOG



**Photograph 1:** View of release collecting inside liner.



**Photograph 2:** View of delineation soil sample BH01 location.



ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS



# **Analytical Report 655092**

**for  
LT Environmental, Inc.**

**Project Manager: Dan Moir  
PLU 213 SWD/Nash Draw 195**

**012920026**

**13-MAR-20**

Collected By: Client



**1089 N Canal Street  
Carlsbad, NM 88220**

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

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

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



13-MAR-20

Project Manager: **Dan Moir**

**LT Environmental, Inc.**

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **655092**

**PLU 213 SWD/Nash Draw 195**

Project Address:

**Dan Moir:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 655092. 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. 655092 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 Manager

***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 655092****LT Environmental, Inc., Arvada, CO**

PLU 213 SWD/Nash Draw 195

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	03-06-20 11:30	0.5 ft	655092-001
BH01A	S	03-06-20 11:39	3 ft	655092-002



## CASE NARRATIVE

**Client Name:** *LT Environmental, Inc.*

**Project Name:** *PLU 213 SWD/Nash Draw 195*

Project ID: 012920026  
Work Order Number(s): 655092

Report Date: 13-MAR-20  
Date Received: 03/10/2020

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**Sample receipt non conformances and comments:**

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**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3119165 BTEX by EPA 8021B

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





# Certificate of Analysis Summary 655092

LT Environmental, Inc., Arvada, CO

Project Name: PLU 213 SWD/Nash Draw 195

Project Id: 012920026

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue Mar-10-20 08:45 am

Report Date: 13-MAR-20

Project Manager: Jessica Kramer

<b>Analysis Requested</b>	<b>Lab Id:</b>	655092-001	655092-002				
	<b>Field Id:</b>	BH01	BH01A				
	<b>Depth:</b>	0.5- ft	3- ft				
	<b>Matrix:</b>	SOIL	SOIL				
	<b>Sampled:</b>	Mar-06-20 11:30	Mar-06-20 11:39				
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	Mar-10-20 10:30	Mar-10-20 10:30				
	<b>Analyzed:</b>	Mar-10-20 18:45	Mar-10-20 19:06				
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL				
	Benzene	<0.00198 0.00198	<0.00200 0.00200				
	Toluene	<0.00198 0.00198	<0.00200 0.00200				
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200				
m,p-Xylenes		<0.00396 0.00396	<0.00400 0.00400				
o-Xylene		<0.00198 0.00198	<0.00200 0.00200				
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200				
Total BTEX		<0.00198 0.00198	<0.00200 0.00200				
<b>Chloride by EPA 300</b>	<b>Extracted:</b>	Mar-10-20 11:22	Mar-10-20 11:22				
	<b>Analyzed:</b>	Mar-10-20 13:44	Mar-10-20 13:49				
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL				
	Chloride	1620 49.6	217 9.96				
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b>	Mar-10-20 13:30	Mar-10-20 13:30				
	<b>Analyzed:</b>	Mar-10-20 21:26	Mar-10-20 21:46				
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL				
	Gasoline Range Hydrocarbons (GRO)	<50.1 50.1	<49.8 49.8				
	Diesel Range Organics (DRO)	<50.1 50.1	<49.8 49.8				
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.8 49.8				
Total GRO-DRO		<50.1 50.1	<49.8 49.8				
Total TPH		<50.1 50.1	<49.8 49.8				

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

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

*Jessica Kramer*

Jessica Kramer  
Project Manager



# Certificate of Analytical Results 655092

## LT Environmental, Inc., Arvada, CO

PLU 213 SWD/Nash Draw 195

Sample Id: **BH01**  
Lab Sample Id: 655092-001

Matrix: Soil  
Date Collected: 03.06.20 11.30

Date Received: 03.10.20 08.45  
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3119170

Date Prep: 03.10.20 11.22

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1620	49.6	mg/kg	03.10.20 13.44		5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119178

Date Prep: 03.10.20 13.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	03.10.20 21.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	03.10.20 21.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	03.10.20 21.26	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	03.10.20 21.26	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	03.10.20 21.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	03.10.20 21.26	
o-Terphenyl	84-15-1	94	%	70-135	03.10.20 21.26	



# Certificate of Analytical Results 655092

## LT Environmental, Inc., Arvada, CO

PLU 213 SWD/Nash Draw 195

Sample Id: **BH01**  
Lab Sample Id: 655092-001

Matrix: Soil  
Date Collected: 03.06.20 11.30

Date Received: 03.10.20 08.45  
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.10.20 10.30

Basis: Wet Weight

Seq Number: 3119165

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	03.10.20 18.45	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	03.10.20 18.45	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	03.10.20 18.45	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	03.10.20 18.45	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	03.10.20 18.45	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	03.10.20 18.45	U	1
Total BTEX		<0.00198	0.00198	mg/kg	03.10.20 18.45	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.10.20 18.45		
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.10.20 18.45		



# Certificate of Analytical Results 655092

## LT Environmental, Inc., Arvada, CO

PLU 213 SWD/Nash Draw 195

Sample Id: **BH01A**  
Lab Sample Id: 655092-002

Matrix: Soil  
Date Collected: 03.06.20 11.39

Date Received: 03.10.20 08.45  
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3119170

Date Prep: 03.10.20 11.22

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	217	9.96	mg/kg	03.10.20 13.49		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3119178

Date Prep: 03.10.20 13.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.10.20 21.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.10.20 21.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.10.20 21.46	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	03.10.20 21.46	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.10.20 21.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.10.20 21.46	
o-Terphenyl	84-15-1	101	%	70-135	03.10.20 21.46	



# Certificate of Analytical Results 655092

## LT Environmental, Inc., Arvada, CO

PLU 213 SWD/Nash Draw 195

Sample Id: **BH01A**  
Lab Sample Id: 655092-002

Matrix: Soil  
Date Collected: 03.06.20 11.39

Date Received: 03.10.20 08.45  
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 03.10.20 10.30

Basis: Wet Weight

Seq Number: 3119165

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.10.20 19.06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.10.20 19.06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.10.20 19.06	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.10.20 19.06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.10.20 19.06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.10.20 19.06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.10.20 19.06	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	94	%	70-130	03.10.20 19.06		
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.10.20 19.06		





## 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.**  
PLU 213 SWD/Nash Draw 195

**Analytical Method: Chloride by EPA 300**

Seq Number: 3119170

MB Sample Id: 7698479-1-BLK

Matrix: Solid

LCS Sample Id: 7698479-1-BKS

Prep Method: E300P

Date Prep: 03.10.20

LCSD Sample Id: 7698479-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	259	104	259	104	90-110	0	20	mg/kg	03.10.20 11:35	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3119170

Parent Sample Id: 655087-001

Matrix: Soil

MS Sample Id: 655087-001 S

Prep Method: E300P

Date Prep: 03.10.20

MSD Sample Id: 655087-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.98	200	212	106	210	105	90-110	1	20	mg/kg	03.10.20 11:52	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3119170

Parent Sample Id: 655087-011

Matrix: Soil

MS Sample Id: 655087-011 S

Prep Method: E300P

Date Prep: 03.10.20

MSD Sample Id: 655087-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	249	200	463	107	460	106	90-110	1	20	mg/kg	03.10.20 13:10	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3119178

MB Sample Id: 7698526-1-BLK

Matrix: Solid

LCS Sample Id: 7698526-1-BKS

Prep Method: SW8015P

Date Prep: 03.10.20

LCSD Sample Id: 7698526-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	895	90	949	95	70-135	6	35	mg/kg	03.10.20 15:03	
Diesel Range Organics (DRO)	<50.0	1000	881	88	875	88	70-135	1	35	mg/kg	03.10.20 15:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		104		101		70-135	%	03.10.20 15:03
o-Terphenyl	105		110		101		70-135	%	03.10.20 15:03

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3119178

Matrix: Solid

MB Sample Id: 7698526-1-BLK

Prep Method: SW8015P

Date Prep: 03.10.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.10.20 14:43	

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 213 SWD/Nash Draw 195

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3119178

Parent Sample Id: 655087-001

Matrix: Soil

MS Sample Id: 655087-001 S

Prep Method: SW8015P

Date Prep: 03.10.20

MSD Sample Id: 655087-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	888	89	894	89	70-135	1	35	mg/kg	03.10.20 16:11	
Diesel Range Organics (DRO)	<50.2	1000	958	96	993	99	70-135	4	35	mg/kg	03.10.20 16:11	

**Surrogate**

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		108		70-135	%	03.10.20 16:11
o-Terphenyl	99		106		70-135	%	03.10.20 16:11

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

Seq Number: 3119165

MB Sample Id: 7698474-1-BLK

Matrix: Solid

LCS Sample Id: 7698474-1-BKS

Prep Method: SW5030B

Date Prep: 03.10.20

LCSD Sample Id: 7698474-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.110	110	0.111	111	70-130	1	35	mg/kg	03.10.20 11:57	
Toluene	<0.00200	0.100	0.106	106	0.108	108	70-130	2	35	mg/kg	03.10.20 11:57	
Ethylbenzene	<0.00200	0.100	0.101	101	0.103	103	71-129	2	35	mg/kg	03.10.20 11:57	
m,p-Xylenes	<0.00400	0.200	0.209	105	0.213	107	70-135	2	35	mg/kg	03.10.20 11:57	
o-Xylene	<0.00200	0.100	0.104	104	0.106	106	71-133	2	35	mg/kg	03.10.20 11:57	

**Surrogate**

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		108		108		70-130	%	03.10.20 11:57
4-Bromofluorobenzene	98		94		92		70-130	%	03.10.20 11:57

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

Seq Number: 3119165

Parent Sample Id: 655087-001

Matrix: Soil

MS Sample Id: 655087-001 S

Prep Method: SW5030B

Date Prep: 03.10.20

MSD Sample Id: 655087-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.113	114	0.115	116	70-130	2	35	mg/kg	03.10.20 12:38	
Toluene	<0.00198	0.0992	0.110	111	0.112	113	70-130	2	35	mg/kg	03.10.20 12:38	
Ethylbenzene	<0.00198	0.0992	0.106	107	0.107	108	71-129	1	35	mg/kg	03.10.20 12:38	
m,p-Xylenes	<0.00397	0.198	0.219	111	0.220	111	70-135	0	35	mg/kg	03.10.20 12:38	
o-Xylene	<0.00198	0.0992	0.108	109	0.109	110	71-133	1	35	mg/kg	03.10.20 12:38	

**Surrogate**

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		108		70-130	%	03.10.20 12:38
4-Bromofluorobenzene	95		92		70-130	%	03.10.20 12:38

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



Work Order No: 655097

Page 1 of 1

Hobbs, NM (575-392-7550) Phoenix AZ (480-355-0900) Atlanta GA (770-449-8800) Tampa FL (813-520-2000)

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littell
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:	Carlsbad, NM
Phone:	432.704.5178	Email:	<a href="mailto:dmoir@ltenv.com">dmoir@ltenv.com</a> <a href="mailto:imcarter@xtoenergy.com">imcarter@xtoenergy.com</a>

Work Order Comments	
Program: UST/PST	<input type="checkbox"/> PRP <input type="checkbox"/> brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting Level II	<input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD	<input type="checkbox"/> ADaPT <input type="checkbox"/> Other:

Project Name:		PLU 213 SWD/Nash Draw 195		Turn Around		ANALYSIS REQUEST	Work Order Notes
Project Number:		012920026		Routine <input type="checkbox"/>			
P.O. Number:				Rush: 24hr			
Sampler's Name:		Robert McAfee		Due Date:			
<b>SAMPLE RECEIPT</b>		Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Temperature (°C):		1.2		Thermometer ID			
Received Intact:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Correction Factor:			
Cooler Custody Seals:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Total Containers:			
Sample Custody Seals:		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		2			
Number of Containers							TAT starts the day received by the lab, if received by 4:30pm
A 8015)							
PA 0=8021)							
(EPA 300.0)							
(EPA 300.0)							

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EP)	BTEX (E)	Chloride	Sample Comments
BH01	S	03/06/20	1130	6.5'	1	X	X	X	discrete
BH01A	S	03/06/20	1139	3'	1	X	X	X	discrete

Total	200.7 / 6010	200.8 / 6020:	
8RCRA	13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Ti Sn U V Zn
TCLP / SPLP	6010:	8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
Circle Method(s) and Metal(s) to be analyzed			1631 / 245.1 / 7470 / 7471 : Hq

ice. 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 \$6 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
<i>[Signature]</i>	<i>[Signature]</i>	3/10/20 08:30	<i>[Signature]</i>	<i>[Signature]</i>	3/10/20 08:25



## XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03.10.2020 08.45.00 AM

Work Order #: 655092

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 03.10.2020

Checklist reviewed by:



Jessica Kramer

Date: 03.10.2020