

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

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

Incident ID	NAB1914334905
District RP	2RP-5442
Facility ID	
Application ID	pAB1914332309

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) NAB1914334905
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.253020° Longitude -103.922969°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Poker Lake Unit #263H	Site Type Production Well Facility flow line
Date Release Discovered 5/5/2019	API# (if applicable) 30-015-35115

Unit Letter	Section	Township	Range	County
C	6	24S	30E	Eddy

Surface Owner: State Federal Tribal Private (Name: BLM)

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 1.20	Volume Recovered (bbls) 1.15
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 4.01	Volume Recovered (bbls) 3.85
	Is the concentration of total dissolved solids (TDS) 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

Fluids were released to the lease road when a hole developed in a steel buried flow line due to corrosion. The line was clamped until it could be repaired. A vacuum truck recovered free fluids and the well was returned to production. Additional third party resources have been retained to assist with remediation.

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Oil Conservation Division

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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? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

Initial Response

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

<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&E Supervisor</u> Signature:  Date: <u>5/17/2019</u> email: <u>Kyle.Littrell@xtoenergy.com</u> Telephone: <u>432-221-7331</u>
OCD Only Received by:  Date: <u>5/23/2019</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 checked="" type="checkbox"/> Yes <input 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 checked="" type="checkbox"/> Yes <input 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.

<p>Characterization Report Checklist: <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. <input checked="" type="checkbox"/> Field data <input checked="" type="checkbox"/> Data table of soil contaminant concentration data <input checked="" type="checkbox"/> Depth to water determination <input checked="" type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release <input checked="" type="checkbox"/> Boring or excavation logs <input checked="" type="checkbox"/> Photographs including date and GIS information <input checked="" type="checkbox"/> Topographic/Aerial maps <input checked="" type="checkbox"/> 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.

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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: _____

email: Kyle.Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____



LT Environmental, Inc.

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

December 4, 2019

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

**RE: Closure Request - Addendum
Poker Lake Unit #263H
Remediation Permit Number 2RP-5442
Eddy County, New Mexico**

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following addendum to the initial Closure Request dated September 26, 2019. This addendum details additional confirmation soil sampling activities for remediation of soil at the Poker Lake Unit #263H (Site) located in Unit C, Section 6, Township 24 South, Range 30 East, in Eddy County, New Mexico (Figure 1). Based on the remediation activities and results of the final soil confirmation sampling event, XTO is requesting no further action for this release.

BACKGROUND

On August 1, 2019, LTE submitted a Deferral Request to the New Mexico Oil Conservation Division (NMOCD) for impacted soil from a May 5, 2019, produced water and crude oil release associated with a corroded buried steel flow line on the active lease road adjacent to the Site. The Remediation Permit (RP) Number is 2RP-5442. The deferral was submitted after collecting preliminary and delineation soil samples within and around the release extent of impacted soil.

On August 2, 2019, the NMOCD denied deferral, following the Bureau of Land Management (BLM) recommendation to have blade and water truck work conducted on the road based upon the minimal loss of fluids during the release. Upon completion of blading and watering the lease road, LTE collected three additional discrete soil samples (SS04 through SS06) from a depth of approximately 0.5 feet bgs within the affected area on September 6, 2019. Soil samples SS04 through SS06 exhibited chloride concentrations ranged from 606 milligrams per kilogram (mg/kg) to 677 mg/kg. On November 7, 2019, NMOCD denied closure due to the low-level chloride exceedances reported during the additional sampling.



Bratcher, M.
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ADDITIONAL SITE ACTIVITIES

LTE conducted confirmation sampling on November 12, 2019, to confirm the chloride exceedances previously reported had been fully remediated. LTE collected three 5-point composite confirmation floor samples (FS01 through FS03) from a depth of approximately 0.5 feet bgs within the affected area of the lease road (Figure 2 and Table 1).

The 5-point composite samples were collected by depositing 5 aliquots of soil into a 1-gallon, re-sealable plastic bag and homogenizing the samples by thorough mixing. Samples were then placed directly into pre-cleaned glass jars, labeled with location, date, time, sampler, method of analysis, and immediately placed on ice. The soil samples were shipped at 4 degrees Celsius (°C) under strict chain-of-custody procedures to Xenco Laboratories (Xenco) in Midland, Texas, for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by the United States Environmental Protection Agency (EPA) Method 8021B, total petroleum hydrocarbons (TPH)-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) by EPA Method 8015M/D, and chloride by EPA Method 300.0.

SOIL ANALYTICAL RESULTS

Laboratory analytical results indicated that confirmation floor samples FS01 through FS03 were compliant with the NMOCD Table 1 Closure Criteria (Closure Criteria) for benzene, BTEX, and TPH. Confirmation soil samples FS01 through FS03 chloride concentrations ranged from 118 mg/kg to 425 mg/kg. Benzene, BTEX, and TPH concentrations were also below Site Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 2.

CLOSURE REQUEST

Laboratory analytical results for the confirmation soil samples, collected from the lease road after blading and watering activities, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. The affected area is on a heavily-trafficked lease road, that does not need to be conducive to vegetation growth; therefore, no further remedial activities are warranted. Additionally, delineation soil sampling was completed in the area around the release extent. Laboratory analytical results for the July 2019 delineation soil samples indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria.

Initial response efforts and remedial activities have mitigated impacts at this Site. XTO requests no further action for RP Number 2RP-5442. An updated NMOCD Form C-141 is included as Attachment 1.





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

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in blue ink that reads "Kevin M. Axe".

Kevin M. Axe, P.G.
Senior Geologist

A handwritten signature in blue ink that reads "Ashley L. Ager".

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

cc: Kyle Littrell, XTO
Victoria Venegas, NMOCD
Robert Hamlet, NMOCD
United States Bureau of Land Management

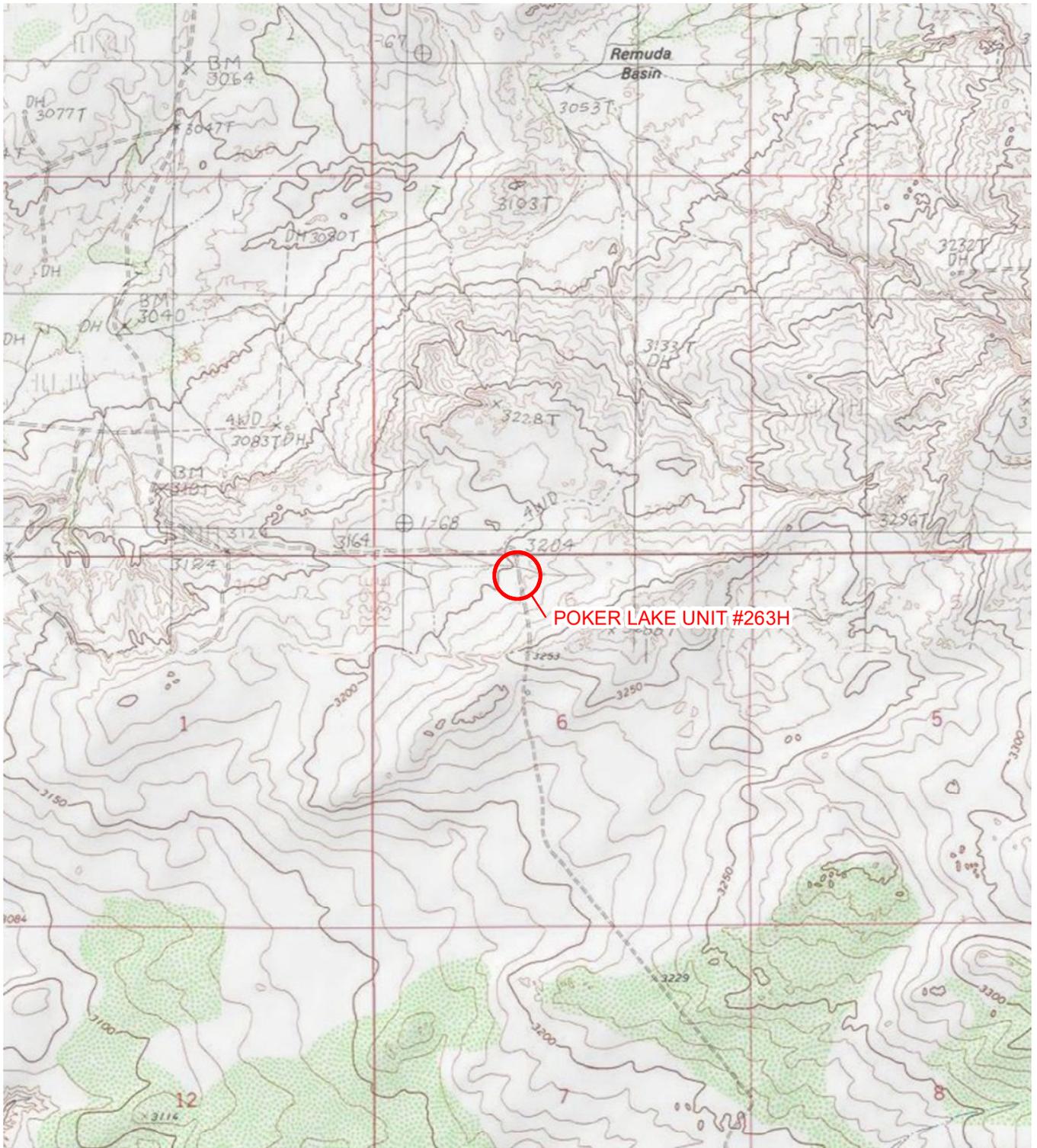
Attachments:

- Figure 1 Site Location Map
- Figure 2 Confirmation Soil Sample Locations
- Table 1 Laboratory Analytical Reports
- Attachment 1 Initial/Final NMOCD Form C-141 (2RP-5442)
- Attachment 2 Soil Analytical Results



FIGURES





POKER LAKE UNIT #263H

IMAGE COURTESY OF ESRI/USGS

LEGEND

 SITE LOCATION

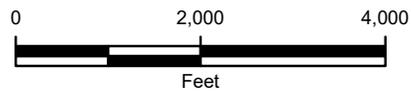


FIGURE 1
SITE LOCATION MAP
POKER LAKE UNIT #263H
UNIT C SEC 6 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.



NOTE: REMEDIATION PERMIT NUMBER 2RP-5442

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
 TPH = 100 mg/kg
 Cl = 600 mg/kg
 ALL RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)
 <: INDICATES RESULT IS LESS THAN THE
 LABORATORY REPORTING LIMIT

FS01@0.5'
 11/12/2019
 B: <0.00200
 BTEX: <0.00200
 TPH: <50.0
 Cl: 425

FS02@0.5'
 11/12/2019
 B: <0.00198
 BTEX: <0.00198
 TPH: <50.0
 Cl: 284

FS03@0.5'
 11/12/2019
 B: <0.00198
 BTEX: <0.00198
 TPH: <50.0
 Cl: 118

LEGEND

-  RELEASE LOCATION
-  CONFIRMATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

-  GAS LINE
-  APPROXIMATE BLADED AREA

B: BENZENE
 BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE,
 AND TOTAL XYLENES
 TPH: TOTAL PETROLEUM HYDROCARBONS
 Cl: CHLORIDE
 NMAC: NEW MEXICO ADMINISTRATIVE CODE
 NMOCD: NEW MEXICO OIL CONSERVATION DIVISION
 NOTE: REMEDIATION PERMIT NUMBER 2RP-5442

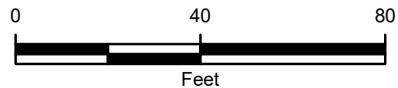


IMAGE COURTESY OF ESRI

FIGURE 2
 CONFIRMATION SOIL SAMPLE LOCATIONS
 POKER LAKE UNIT #263H
 UNIT C SEC 6 T24S R30E
 EDDY COUNTY, NEW MEXICO
 XTO ENERGY, INC.



TABLE



**TABLE 1
SOIL ANALYTICAL RESULTS**

**POKER LAKE UNIT #263H
REMEDIATION PERMIT NUMBER 2RP-5442
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)
SS01	0.5	05/07/2019	<0.00200	0.0209	0.0435	0.232	0.296	89.6	797	126	887	1,010	6,390
SS02	0.5	05/07/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	17.4	633	105	650	755	6,230
SS03	0.5	05/07/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	18.9	<15.0	18.9	18.9	5,640
SS04	0.5	09/06/2019	<0.00101	<0.00101	<0.00101	<0.00101	<0.00101	<25.1	<25.1	<25.1	<25.1	<25.1	677
SS05	0.5	09/06/2019	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<25.1	<25.1	<25.1	<25.1	<25.1	643
SS06	0.5	09/06/2019	<0.000990	<0.000990	<0.000990	<0.000990	<0.000990	<24.9	<24.9	<24.9	<24.9	<24.9	606
BH01	1	07/09/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	18.1
BH01A	4	07/09/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	11.6
BH02	1	07/09/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	17.4	<15.0	<15.0	17.4	17.4	21.5
BH02A	4	07/09/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	109
BH03	1	07/09/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	33.3
BH03A	4	07/09/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	5.30
BH04	1	07/09/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	22.7
BH04A	4	07/09/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	15.6
FS01	0.5	11/12/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	425
FS02	0.5	11/12/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	284
FS03	0.5	11/12/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	118
NMOCDC Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600

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

ORO - motor oil range organics
 NMAC - New Mexico Administrative Code
 NMOCDC - New Mexico Oil Conservation Division
 NE - not established
 TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard
 < - indicates result is below laboratory reporting limits
 Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018



ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141 (2RP-5442)

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

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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) NAB1914334905
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.253020° Longitude -103.922969°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Poker Lake Unit #263H	Site Type Production Well Facility flow line
Date Release Discovered 5/5/2019	API# (if applicable) 30-015-35115

Unit Letter	Section	Township	Range	County
C	6	24S	30E	Eddy

Surface Owner: State Federal Tribal Private (Name: BLM)

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 1.20	Volume Recovered (bbls) 1.15
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 4.01	Volume Recovered (bbls) 3.85
	Is the concentration of total dissolved solids (TDS) 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

Fluids were released to the lease road when a hole developed in a steel buried flow line due to corrosion. The line was clamped until it could be repaired. A vacuum truck recovered free fluids and the well was returned to production. Additional third party resources have been retained to assist with remediation.

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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? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

Initial Response

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

<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&E Supervisor</u> Signature: <u></u> Date: <u>5/17/2019</u> email: <u>Kyle.Littrell@xtoenergy.com</u> Telephone: <u>432-221-7331</u>
OCD Only Received by: <u></u> Date: <u>5/23/2019</u>

Incident ID	
District RP	2RP-5442
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Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	___ >100 (ft bgs)
Did this release impact groundwater or surface water?	<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 checked="" type="checkbox"/> Yes <input 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 checked="" type="checkbox"/> Yes <input 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.

<p>Characterization Report Checklist: <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. <input checked="" type="checkbox"/> Field data <input checked="" type="checkbox"/> Data table of soil contaminant concentration data <input checked="" type="checkbox"/> Depth to water determination <input checked="" type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release <input checked="" type="checkbox"/> Boring or excavation logs <input checked="" type="checkbox"/> Photographs including date and GIS information <input checked="" type="checkbox"/> Topographic/Aerial maps <input checked="" type="checkbox"/> Laboratory data including chain of custody

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

Form C-141

State of New Mexico
Oil Conservation Division

Page 6

Incident ID	
District RP	2RP-5442
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor
 Signature: , Date: _____
 email: Kyle.Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____
 Printed Name: _____ Title: _____

ATTACHMENT 2: SOIL ANALYTICAL RESULTS



Analytical Report 643015

for
LT Environmental, Inc.

Project Manager: Dan Moir

PLU 263

012919094

14-NOV-19

Collected By: Client



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

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

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

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



14-NOV-19

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

Reference: XENCO Report No(s): **643015**
PLU 263
Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 643015. 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. 643015 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'. The signature is written in a cursive, slightly slanted style.

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 643015

LT Environmental, Inc., Arvada, CO

PLU 263

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	11-12-19 14:40	0.5 ft	643015-001
FS02	S	11-12-19 14:50	0.5 ft	643015-002
FS03	S	11-12-19 15:00	0.5 ft	643015-003



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: PLU 263

Project ID: 012919094
Work Order Number(s): 643015

Report Date: 14-NOV-19
Date Received: 11/13/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3107440 BTEX by EPA 8021B

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



Certificate of Analysis Summary 643015

LT Environmental, Inc., Arvada, CO

Project Name: PLU 263

Project Id: 012919094
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Wed Nov-13-19 10:44 am
Report Date: 14-NOV-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	643015-001	643015-002	643015-003			
	<i>Field Id:</i>	FS01	FS02	FS03			
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft			
	<i>Matrix:</i>	SOIL	SOIL	SOIL			
	<i>Sampled:</i>	Nov-12-19 14:40	Nov-12-19 14:50	Nov-12-19 15:00			
BTEX by EPA 8021B SUB: T104704400-19-19	<i>Extracted:</i>	Nov-13-19 15:00	Nov-13-19 15:00	Nov-13-19 15:00			
	<i>Analyzed:</i>	Nov-14-19 01:52	Nov-14-19 02:12	Nov-14-19 02:32			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
	Benzene	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198			
Toluene	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198				
Ethylbenzene	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198				
m,p-Xylenes	<0.00400 0.00400	<0.00397 0.00397	<0.00397 0.00397				
o-Xylene	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198				
Total Xylenes	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198				
Total BTEX	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198				
Chloride by EPA 300 SUB: T104704400-19-19	<i>Extracted:</i>	Nov-13-19 16:30	Nov-13-19 16:30	Nov-13-19 16:30			
	<i>Analyzed:</i>	Nov-13-19 21:01	Nov-13-19 21:07	Nov-13-19 21:27			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride	425 25.1	284 25.0	118 4.97				
TPH by SW8015 Mod SUB: T104704400-19-19	<i>Extracted:</i>	Nov-13-19 16:00	Nov-13-19 16:00	Nov-13-19 16:00			
	<i>Analyzed:</i>	Nov-14-19 03:30	Nov-14-19 04:34	Nov-14-19 04:55			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
	Gasoline Range Hydrocarbons (GRO)	<50.0 50.0	<50.0 50.0	<50.0 50.0			
	Diesel Range Organics (DRO)	<50.0 50.0	<50.0 50.0	<50.0 50.0			
Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0	<50.0 50.0	<50.0 50.0				
Total GRO-DRO	<50.0 50.0	<50.0 50.0	<50.0 50.0				
Total TPH	<50.0 50.0	<50.0 50.0	<50.0 50.0				

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

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 643015

LT Environmental, Inc., Arvada, CO

PLU 263

Sample Id: FS01	Matrix: Soil	Date Received: 11.13.19 10.44
Lab Sample Id: 643015-001	Date Collected: 11.12.19 14.40	Sample Depth: 0.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 11.13.19 16.30	Basis: Wet Weight
Seq Number: 3107408		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	425	25.1	mg/kg	11.13.19 21.01		5

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DVM		% Moisture:
Analyst: ARM	Date Prep: 11.13.19 16.00	Basis: Wet Weight
Seq Number: 3107399		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.14.19 03.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.14.19 03.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.14.19 03.30	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.14.19 03.30	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.14.19 03.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.14.19 03.30	
o-Terphenyl	84-15-1	107	%	70-135	11.14.19 03.30	



Certificate of Analytical Results 643015

LT Environmental, Inc., Arvada, CO

PLU 263

Sample Id: FS01	Matrix: Soil	Date Received: 11.13.19 10.44
Lab Sample Id: 643015-001	Date Collected: 11.12.19 14.40	Sample Depth: 0.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: KTL	Date Prep: 11.13.19 15.00	Basis: Wet Weight
Seq Number: 3107440		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.14.19 01.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.14.19 01.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.14.19 01.52	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.14.19 01.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.14.19 01.52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.14.19 01.52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.14.19 01.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	87	%	70-130	11.14.19 01.52		
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.14.19 01.52		



Certificate of Analytical Results 643015

LT Environmental, Inc., Arvada, CO

PLU 263

Sample Id: FS02	Matrix: Soil	Date Received: 11.13.19 10.44
Lab Sample Id: 643015-002	Date Collected: 11.12.19 14.50	Sample Depth: 0.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 11.13.19 16.30	Basis: Wet Weight
Seq Number: 3107408		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	284	25.0	mg/kg	11.13.19 21.07		5

Analytical Method: TPH by SW8015 Mod		Prep Method: SW8015P
Tech: DVM		% Moisture:
Analyst: ARM	Date Prep: 11.13.19 16.00	Basis: Wet Weight
Seq Number: 3107399		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.14.19 04.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.14.19 04.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.14.19 04.34	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.14.19 04.34	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.14.19 04.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	11.14.19 04.34	
o-Terphenyl	84-15-1	111	%	70-135	11.14.19 04.34	



Certificate of Analytical Results 643015

LT Environmental, Inc., Arvada, CO

PLU 263

Sample Id: FS02	Matrix: Soil	Date Received: 11.13.19 10.44
Lab Sample Id: 643015-002	Date Collected: 11.12.19 14.50	Sample Depth: 0.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: KTL	Date Prep: 11.13.19 15.00	Basis: Wet Weight
Seq Number: 3107440		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.14.19 02.12	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.14.19 02.12	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.14.19 02.12	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.14.19 02.12	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.14.19 02.12	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.14.19 02.12	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.14.19 02.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	11.14.19 02.12		
1,4-Difluorobenzene	540-36-3	97	%	70-130	11.14.19 02.12		



Certificate of Analytical Results 643015

LT Environmental, Inc., Arvada, CO

PLU 263

Sample Id: FS03	Matrix: Soil	Date Received: 11.13.19 10.44
Lab Sample Id: 643015-003	Date Collected: 11.12.19 15.00	Sample Depth: 0.5 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 11.13.19 16.30	Basis: Wet Weight
Seq Number: 3107408		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	118	4.97	mg/kg	11.13.19 21.27		1

Analytical Method: TPH by SW8015 Mod	Prep Method: SW8015P
Tech: DVM	% Moisture:
Analyst: ARM	Date Prep: 11.13.19 16.00
Seq Number: 3107399	Basis: Wet Weight
	SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.14.19 04.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.14.19 04.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.14.19 04.55	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.14.19 04.55	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.14.19 04.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	11.14.19 04.55	
o-Terphenyl	84-15-1	109	%	70-135	11.14.19 04.55	



Certificate of Analytical Results 643015

LT Environmental, Inc., Arvada, CO

PLU 263

Sample Id: FS03	Matrix: Soil	Date Received: 11.13.19 10.44
Lab Sample Id: 643015-003	Date Collected: 11.12.19 15.00	Sample Depth: 0.5 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: KTL		% Moisture:
Analyst: KTL	Date Prep: 11.13.19 15.00	Basis: Wet Weight
Seq Number: 3107440		SUB: T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.14.19 02.32	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.14.19 02.32	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.14.19 02.32	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.14.19 02.32	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.14.19 02.32	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.14.19 02.32	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.14.19 02.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	11.14.19 02.32		
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.14.19 02.32		



QC Summary 643015

LT Environmental, Inc.
PLU 263

Analytical Method: Chloride by EPA 300

Seq Number: 3107408
MB Sample Id: 7690275-1-BLK

Matrix: Solid
LCS Sample Id: 7690275-1-BKS

Prep Method: E300P
Date Prep: 11.13.19
LCSD Sample Id: 7690275-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	248	99	248	99	90-110	0	20	mg/kg	11.13.19 18:54	

Analytical Method: Chloride by EPA 300

Seq Number: 3107408
Parent Sample Id: 642023-007

Matrix: Soil
MS Sample Id: 642023-007 S

Prep Method: E300P
Date Prep: 11.13.19
MSD Sample Id: 642023-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	320	252	570	99	567	98	90-110	1	20	mg/kg	11.13.19 19:14	

Analytical Method: Chloride by EPA 300

Seq Number: 3107408
Parent Sample Id: 642973-005

Matrix: Soil
MS Sample Id: 642973-005 S

Prep Method: E300P
Date Prep: 11.13.19
MSD Sample Id: 642973-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	107	396	516	103	516	103	90-110	0	20	mg/kg	11.13.19 20:47	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3107399
MB Sample Id: 7690274-1-BLK

Matrix: Solid
LCS Sample Id: 7690274-1-BKS

Prep Method: SW8015P
Date Prep: 11.13.19
LCSD Sample Id: 7690274-1-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	1150	115	1190	119	70-135	3	20	mg/kg	11.14.19 02:48	
Diesel Range Organics (DRO)	<15.0	1000	1110	111	1150	115	70-135	4	20	mg/kg	11.14.19 02:48	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		116		121		70-135	%	11.14.19 02:48
o-Terphenyl	105		104		109		70-135	%	11.14.19 02:48

Analytical Method: TPH by SW8015 Mod

Seq Number: 3107399
MB Sample Id: 7690274-1-BLK

Matrix: Solid

Prep Method: SW8015P
Date Prep: 11.13.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.14.19 02:27	

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

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

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

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



QC Summary 643015

LT Environmental, Inc.

PLU 263

Analytical Method: TPH by SW8015 Mod

Seq Number: 3107399

Parent Sample Id: 643015-001

Matrix: Soil

MS Sample Id: 643015-001 S

Prep Method: SW8015P

Date Prep: 11.13.19

MSD Sample Id: 643015-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	1180	118	1200	120	70-135	2	20	mg/kg	11.14.19 03:51	
Diesel Range Organics (DRO)	21.2	997	1190	117	1170	115	70-135	2	20	mg/kg	11.14.19 03:51	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		128		70-135	%	11.14.19 03:51
o-Terphenyl	112		113		70-135	%	11.14.19 03:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3107440

MB Sample Id: 7690267-1-BLK

Matrix: Solid

LCS Sample Id: 7690267-1-BKS

Prep Method: SW5030B

Date Prep: 11.13.19

LCSD Sample Id: 7690267-1-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	0.0974	97	0.106	106	70-130	8	35	mg/kg	11.13.19 22:51	
Toluene	<0.00200	0.100	0.103	103	0.111	111	70-130	7	35	mg/kg	11.13.19 22:51	
Ethylbenzene	<0.00200	0.100	0.104	104	0.112	112	70-130	7	35	mg/kg	11.13.19 22:51	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.198	99	70-130	8	35	mg/kg	11.13.19 22:51	
o-Xylene	<0.00200	0.100	0.104	104	0.113	113	70-130	8	35	mg/kg	11.13.19 22:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		95		101		70-130	%	11.13.19 22:51
4-Bromofluorobenzene	88		98		109		70-130	%	11.13.19 22:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3107440

Parent Sample Id: 642593-001

Matrix: Soil

MS Sample Id: 642593-001 S

Prep Method: SW5030B

Date Prep: 11.13.19

MSD Sample Id: 642593-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0917	92	0.0971	97	70-130	6	35	mg/kg	11.13.19 23:32	
Toluene	<0.00200	0.100	0.0995	100	0.101	101	70-130	1	35	mg/kg	11.13.19 23:32	
Ethylbenzene	<0.00200	0.100	0.0939	94	0.101	101	70-130	7	35	mg/kg	11.13.19 23:32	
m,p-Xylenes	<0.00401	0.200	0.172	86	0.178	89	70-130	3	35	mg/kg	11.13.19 23:32	
o-Xylene	<0.00200	0.100	0.0966	97	0.0995	100	70-130	3	35	mg/kg	11.13.19 23:32	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		94		70-130	%	11.13.19 23:32
4-Bromofluorobenzene	105		106		70-130	%	11.13.19 23:32

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



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

Chain of Custody

Work Order No: 443015

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Little
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) 236-3849	Email:	enaka@ltenv.com, dmoir@ltenv.com

Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> RP <input type="checkbox"/> Growfields <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"/> BT/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:	PLU 263	Turn Around	
Project Number:	012919894	Routine	<input type="checkbox"/>
P.O. Number:	Eddy County	Rush: 24hour	
Sampler's Name:	Elizabeth Naka	Due Date:	

SAMPLE RECEIPT	Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Well Use:	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:	T - N A - 007	
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Total Containers:	3	
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST	Work Order Notes
FS01	S	11/12/19	1440	0.5'	1	X	X	X		
FS02			1450			X	X	X		
FS03			1500			X	X	X		
<i>Elizabeth Naka</i>										

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 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Elizabeth Naka</i>	<i>Anna Byers</i>	11/13/19 0945	<i>Anna Byers</i>	<i>[Signature]</i>	11/18/19 10:44



Inter-Office Shipment

Page 1 of 1

IOS Number **52140**

Date/Time: 11/13/19 12:02

Created by: Elizabeth McClellan

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.:

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
643015-001	S	FS01	11/12/19 14:40	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/26/19	JKR	GRO-DRO PHCC10C28 PI	
643015-001	S	FS01	11/12/19 14:40	SW8021B	BTEX by EPA 8021B	11/14/19	11/26/19	JKR	BZ BZME EBZ XYLENES	
643015-001	S	FS01	11/12/19 14:40	E300_CL	Chloride by EPA 300	11/14/19	05/10/20	JKR	CL	
643015-002	S	FS02	11/12/19 14:50	E300_CL	Chloride by EPA 300	11/14/19	05/10/20	JKR	CL	
643015-002	S	FS02	11/12/19 14:50	SW8021B	BTEX by EPA 8021B	11/14/19	11/26/19	JKR	BZ BZME EBZ XYLENES	
643015-002	S	FS02	11/12/19 14:50	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/26/19	JKR	GRO-DRO PHCC10C28 PI	
643015-003	S	FS03	11/12/19 15:00	E300_CL	Chloride by EPA 300	11/14/19	05/10/20	JKR	CL	
643015-003	S	FS03	11/12/19 15:00	SW8021B	BTEX by EPA 8021B	11/14/19	11/26/19	JKR	BZ BZME EBZ XYLENES	
643015-003	S	FS03	11/12/19 15:00	SW8015MOD_NM	TPH by SW8015 Mod	11/14/19	11/26/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Relinquished By:

Elizabeth McClellan

Date Relinquished: 11/13/2019

Received By:

Brianna Teel

Date Received: 11/13/2019 15:59

Cooler Temperature: 0.6



XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 52140

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sent By: Elizabeth McClellan

Date Sent: 11/13/2019 12:02 PM

Received By: Brianna Teel

Date Received: 11/13/2019 03:59 PM

Sample Receipt Checklist

Comments

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

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Brianna Teel
Brianna Teel

Date: 11/13/2019



XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In



Client: LT Environmental, Inc.

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

Date/ Time Received: 11/13/2019 10:44:00 AM

Temperature Measuring device used : T-NM-007

Work Order #: 643015

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 Samples split into 2oz. jars for subbing.
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes Subbed to Midland.
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 11/13/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/14/2019