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	NAB1915441034
District RP	2RP-5466
Facility ID	fAB1902455092
Application ID	pAB1915434418

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)* NAB1915441034
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.152425° Longitude -103.999079°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Corral Canyon Central Tank Battery	Site Type Temporary Containment at Bulk Storage/Separation Fac.
Date Release Discovered 5/18/2019	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
P	5	25S	29E	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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 45	Volume Recovered (bbls) 45
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A leaking valve caused the sand purge tank within temporary lined containment to overfill. Vacuum truck recovered all fluids, the valve was repaired, and the facility was returned to operation. A 48-hour advance notice of liner inspection was provided by email to NMOCD District 2. The liner was visually inspected and determined to be insufficient. Potentially impacted soils beneath the containment and tank will be delineated and remediated as soon as the tank is removed.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAB1915441034
District RP	2RP-5466
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? An unauthorized release of a volume of 25 barrels or more

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Notice provided by Bryan Foust to Mike Bratcher, Rob Hamlet, Victoria Venegas, and Jim Griswold (NMOCD), Jim Amos, Crystal Weaver, and Deborah McKinney (BLM) on 5/18/2019 by email

Initial Response

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

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

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

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

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

Printed Name: Amy C. Ruth
Title: SH&E Coordinator
Signature:
Date: 5/31/2019
email: Amy_Ruth@xtoenergy.com
Telephone: 575-689-3380

OCD Only

Received by: Amalia Bustamante
Date: 6/03/2019

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5466
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	51-100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5466
Facility ID	
Application ID	

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

Printed Name: _____Kyle Littrell_____ Title: ____SH&E Supervisor_____

Signature:_____ Date: __11/15/2019_____

email: _____Kyle_Littrell@xtoenergy.com_____ Telephone: ___432-221-7331_____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5466
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

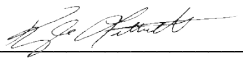
☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ 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: 11/15/2019

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

OCD Only

Received by: Date:

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

Closure Approved by: Date:

Printed Name: Title:

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

November 15, 2019

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

RE: Closure Request
Corral Canyon Central Tank Battery
Remediation Permit Number 2RP-5466
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following report detailing site assessment and soil sampling activities at the Corral Canyon Central Tank Battery (Site) in Unit P, Section 5, Township 25 South, Range 29 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 impacts to soil following 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 Report and requesting no further action for Remediation Permit (RP) Number 2RP-5466.

RELEASE BACKGROUND

On May 18, 2019, a leaking valve caused the sand purge tank to overfill and release approximately 45 barrels (bbls) of produced water into the temporary lined containment. A vacuum truck was dispatched to the Site to recover free-standing fluid; all of the fluid that was released was recovered. The valve was repaired and the facility was returned to operation. In addition, XTO conducted a liner integrity inspection. The liner was determined to be compromised and additional investigation activities were required. 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 May 31, 2019, and was assigned RP Number 2RP-5466 (Attachment 1).

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 between 51 and 100 feet below ground surface (bgs) based on the nearest water well data. The closest permitted water well with depth to water data is New Mexico Office of the Sate Engineer (NM OSE) Well #RA7162, located

approximately 6,260 feet southeast of the Site. The water well has a depth to groundwater of approximately 40 feet bgs and a total depth of 55 feet bgs. However, as part of remediation efforts at a nearby site, Corral Canyon #1H flow line (2RP-5201), LTE installed six monitoring wells (MW01 through MW06) to assess depth to groundwater. The groundwater monitoring wells are located approximately 465 feet southeast of the Site. Static water level measured in monitoring wells MW01 through MW06 on September 13, 2019, ranged from 57.26 feet bgs in monitoring well MW04 to 62.29 feet bgs in monitoring well MW02 with an average depth to water of 58.80 feet bgs. The depth to water measurements are provided in the table below and the location of the monitoring wells is identified on Figure 1.

MONITORING WELL INFORMATION

Sample Name	NM OSE Permit No.	Total Depth (feet bgs)	Depth to Water (feet bgs)	Sample Date
MW01	C-4324 POD 12	68.44	58.17	09/13/2019
MW02	C-4324 POD 8	68.10	62.29	09/13/2019
MW03	C-4324 POD 9	75.58	58.30	09/13/2019
MW04	C-4324 POD 10	69.08	57.26	09/13/2019
MW05	C-4324 POD 11	64.80	58.54	09/13/2019
MW06	C-4324 POD 6	64.11	58.25	09/13/2019

Notes:
bgs – below ground surface

Based on depth to water measured recently in the nearby monitoring wells, depth to water at the Site is estimated to be between 51 and 100 feet bgs. The closest continuously flowing water or significant watercourse to the Site is an unnamed dry wash, located approximately 589 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located in a medium potential karst area.

CLOSURE CRITERIA

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

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

- TPH: 2,500 mg/kg; and
- Chloride: 10,000 mg/kg.

SITE ASSESSMENT AND SOIL SAMPLING ACTIVITIES

On July 18, 2019, LTE personnel was at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. LTE personnel advanced five potholes via track-mounted backhoe to confirm the presence or absence of impacted soil. Potholes PH01 through PH05 were advanced to a depth of 2 feet bgs. Two delineation soil samples were collected from each pothole from depths of 1 foot and 2 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons utilizing a photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each pothole were logged on lithologic/soil sampling logs, which are included in Attachment 2. All potholes were backfilled with the soil removed. The potholes and delineation soil sample locations are depicted on Figure 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 Midland, Texas, for analysis of BTEX following United States Environmental Protection Agency (USEPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following USEPA Method 8015M/D; and chloride following USEPA Method 300.0.

Based on laboratory analytical results for the delineation soil samples, excavation activities did not appear to be warranted. Photographic documentation was conducted during the Site visit. Photographs are included in Attachment 3.

ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, GRO and DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in delineation soil samples PH01/PH01A through PH05/PH05A collected at depths of approximately 1 foot and 2 feet bgs. Laboratory analytical results are presented on Figure 2, and summarized in Table 1. The complete laboratory analytical reports are included as Attachment 4.

CONCLUSIONS

Delineation soil samples PH01/PH01A through PH05/PH05A were collected from within the release extent from depths of 1 foot and 2 feet bgs to assess for the presence or absence of soil impacts as a result of the May 18, 2019, release. Laboratory analytical results for all soil samples indicated benzene, BTEX, GRO and DRO, TPH, and chloride concentrations were compliant with

the Closure Criteria. Additionally, field screening of soil indicated volatile aromatic hydrocarbons and chloride concentrations were not elevated and soil staining and petroleum hydrocarbon odors were not identified within the release extent.

Based on initial response efforts, absence of elevated field screening results, and soil sample laboratory analytical results compliant with the Closure Criteria, no impacted soil was identified and no soil excavation was required as a result of the produced water release. XTO requests no further action for RP Number 2RP-5466. An updated Form C-141 is included as Attachment 1.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Carol Ann Whaley
Staff Geologist

Ashley L. Ager, P.G.
Senior Geologist

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

Attachments:

Figure 1	Site Location Map
Figure 2	Delineation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Initial/Final NMOCD Form C-141 (2RP-5466)
Attachment 2	Lithologic / Soil Sampling Logs
Attachment 3	Photographic Log
Attachment 4	Laboratory Analytical Reports

FIGURES

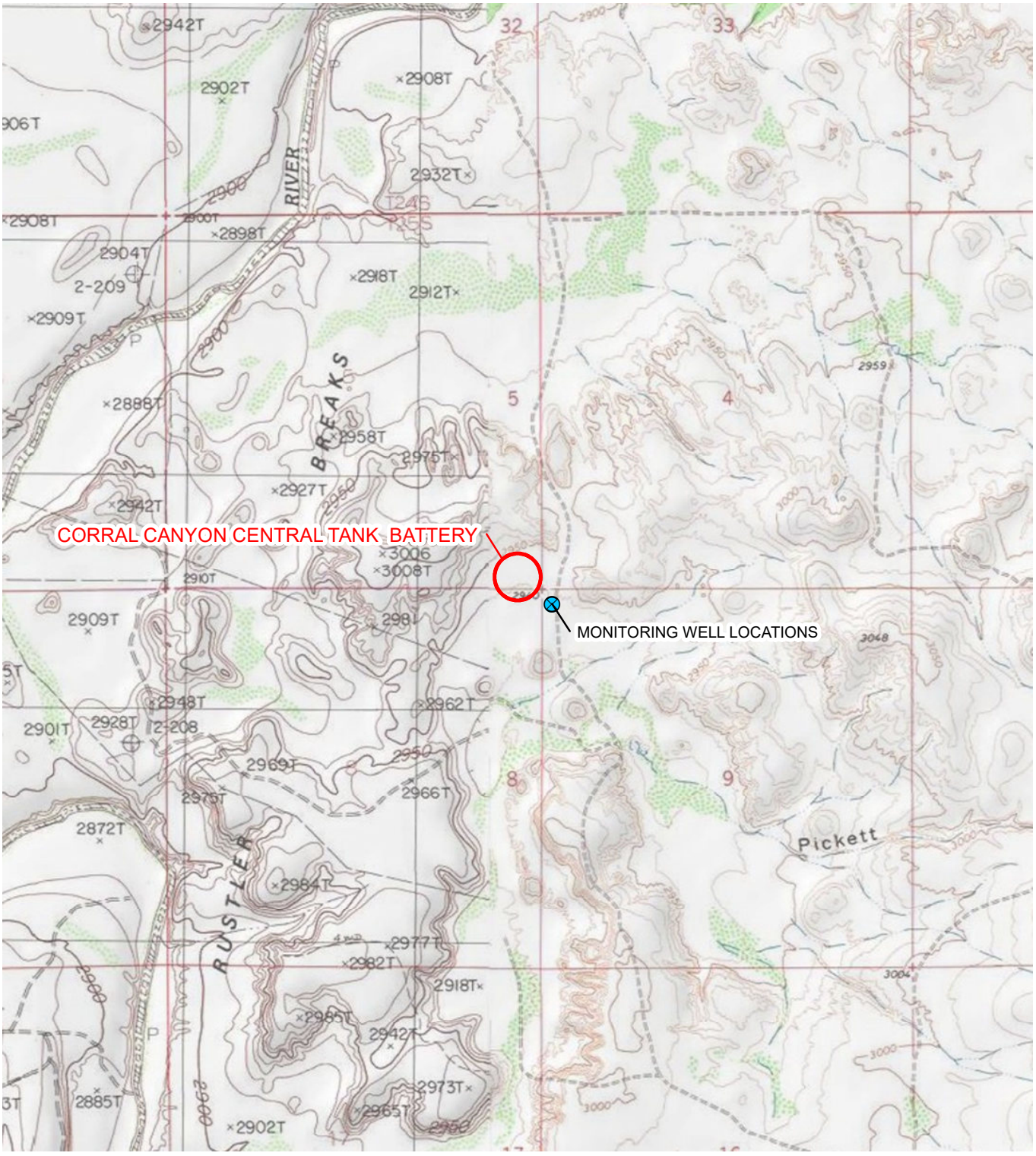


IMAGE COURTESY OF ESRI/USGS

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

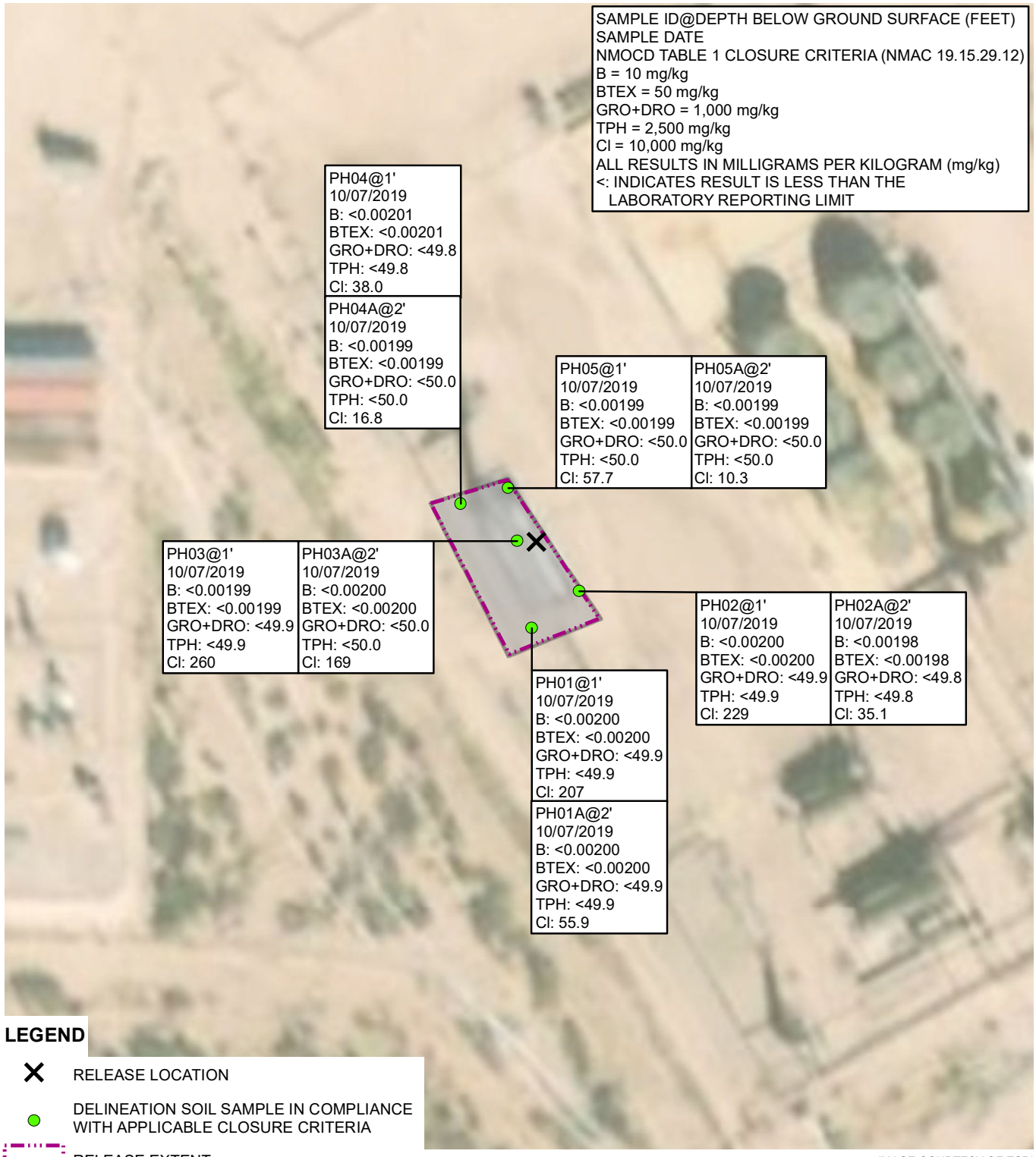
N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBER 2RP-5466

FIGURE 1
SITE LOCATION MAP
CORRAL CANYON CENTRAL TANK BATTERY
UNIT P SEC 5 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919117_CORRAL CANYON CENTRAL TANK BATTERY\012919117_FIG01_SL_5466_1.mxd



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: REMEDIATION PERMIT NUMBER 2RP-5466

FIGURE 2
DELINEATION SOIL SAMPLE LOCATIONS
CORRAL CANYON CENTRAL TANK BATTERY
UNIT P SEC 5 T25S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919117_CORRAL CANYON CENTRAL TANK BATTERY\012919117_FIG02_DELINEATION_5466.mxd

TABLE

TABLE 1
SOIL ANALYTICAL RESULTS

CORRAL CANYON CENTRAL TANK BATTERY
REMEDIATION PERMIT NUMBER 2RP-5466
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
PH01	1	10/07/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	207
PH01A	2	10/07/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	55.9
PH02	1	10/07/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	229
PH02A	2	10/07/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	35.1
PH03	1	10/07/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	260
PH03A	2	10/07/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	169
PH04	1	10/07/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	38.0
PH04A	2	10/07/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	16.8
PH05	1	10/07/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	57.7
PH05A	2	10/07/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	10.3
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**10,000**

Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
DRO - diesel range organics
GRO - gasoline range organics
MRO - motor oil range organics
NMAC - New Mexico Administrative Code
NMOCD - New Mexico Oil Conservation Division
TPH - total petroleum hydrocarbons
mg/kg - milligrams per kilogram
< - 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: INITIAL/FINAL NMOCD FORM C-141 (2RP-5466)

District I
1625 N. French Dr., Hobbs, NM 88240
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State of New Mexico
Energy Minerals and Natural Resources Department

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

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District RP	2RP-5466
Facility ID	fAB1902455092
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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)* NAB1915441034
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.152425° Longitude -103.999079°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Corral Canyon Central Tank Battery	Site Type Temporary Containment at Bulk Storage/Separation Fac.
Date Release Discovered 5/18/2019	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
P	5	25S	29E	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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 45	Volume Recovered (bbls) 45
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A leaking valve caused the sand purge tank within temporary lined containment to overfill. Vacuum truck recovered all fluids, the valve was repaired, and the facility was returned to operation. A 48-hour advance notice of liner inspection was provided by email to NMOCD District 2. The liner was visually inspected and determined to be insufficient. Potentially impacted soils beneath the containment and tank will be delineated and remediated as soon as the tank is removed.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAB1915441034
District RP	2RP-5466
Facility ID	fAB1902455092
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? An unauthorized release of a volume of 25 barrels or more

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Notice provided by Bryan Foust to Mike Bratcher, Rob Hamlet, Victoria Venegas, and Jim Griswold (NMOCD), Jim Amos, Crystal Weaver, and Deborah McKinney (BLM) on 5/18/2019 by email

Initial Response

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

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

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

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

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

Printed Name: Amy C. Ruth
Title: SH&E Coordinator
Signature:
Date: 5/31/2019
email: Amy_Ruth@xtoenergy.com
Telephone: 575-689-3380

OCD Only

Received by: Amalia Bustamante
Date: 6/03/2019

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5466
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	51-100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5466
Facility ID	
Application ID	

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

Printed Name: _____Kyle Littrell_____ Title: ____SH&E Supervisor_____

Signature:_____ Date: __11/15/2019_____

email: _____Kyle_Littrell@xtoenergy.com_____ Telephone: ___432-221-7331_____

OCD Only

Received by: _____ Date: _____

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5466
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: 11/15/2019

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

OCD Only

Received by: Date:

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

Closure Approved by: Date:

Printed Name: Title:

ATTACHMENT 2: LITHOLOGIC / SOIL SMAPLING LOGS

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

Identifier:	Date:
PH01	10/07/19
Project Name: Corral Canyon CTB	RP Number: 2RP-5466
Logged By: Robert M.	Method: Pothole
Hole Diameter: 2'	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1055 D	<124	0.8	N		1	1'	S	CHCE White
1100 M	<124	1.4	N		2	2'	S	SP-SM Brown
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: PH02	Date: 10/07/19
Project Name: Corral Canyon CTB	RP Number: 2RP-5466
Logged By: Robert M.	Method: Pothole
Hole Diameter: 2'	Total Depth:
Lat/Long:	Field Screening:

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1110	D	386	0.8	N		1	1'	S	CHCE White
1115	M	<124	0.9	N		2	2'	S	SP-SM Brown
						3			
						4			
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

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

Identifier: PH03	Date: 10/07/19
Project Name: Corral Canyon CTB	RP Number: 2RP-5466
Logged By: Robert M	Method: Pothole
Lat/Long:	Field Screening:
Hole Diameter: 2'	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1130 D	200	0.6	N		1	1'	S	CHCE White
1135 M	<124	1.0	N		2	2'	S	SP-SM Brown
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

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

Identifier: PH04	Date: 10/07/19
Project Name: Corral Canyon CTB	RP Number: 2RP-5466
Logged By: Robert M.	Method: Pothole
Lat/Long:	Field Screening:
Hole Diameter: 2'	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1200	D	<124	1.2	N		1	1'	S	CHCE White
1205	M	<124	1.0	N		2	2'	S	SP-SM Brown
						3			
						4			
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

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

Identifier: PH05	Date: 10/07/19
Project Name: Corral Canyon CTB	RP Number: 2RP-5466
Logged By: Robert M	Method: Pothole
Hole Diameter: 2'	Total Depth:

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long: Field Screening:

Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1220	D	<124	0.7	N		1	1'	S	CHCE White
1225	M	<124	1.2	N		2	2'	S	SP-SM Brown
						3			
						4			
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

ATTACHMENT 3: PHOTOGRAPHIC LOG

Eastern view of release area during site assessment activities.

Project: 012919117	XTO Energy, Inc. Corral Canyon Central Tank Battery	LTE Advancing Opportunity
July 18, 2019	Photographic Log	

Eastern view of release area during delineation soil sampling activities.

Project: 012919117	XTO Energy, Inc. Corral Canyon Central Tank Battery	LTE Advancing Opportunity
October 7, 2019	Photographic Log	

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS

Analytical Report 639278

for

LT Environmental, Inc.

Project Manager: Dan Moir

Corral Canyon CTB

012919117

11-OCT-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 (2017-142), North Carolina (681)

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-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)

11-OCT-19

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

Reference: XENCO Report No(s): **639278**
Corral Canyon CTB
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) 639278. 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. 639278 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

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

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

Sample Cross Reference 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	10-07-19 10:55	1 ft	639278-001
PH01A	S	10-07-19 11:00	2 ft	639278-002
PH02	S	10-07-19 11:10	1 ft	639278-003
PH02A	S	10-07-19 11:15	2 ft	639278-004
PH03	S	10-07-19 11:30	1 ft	639278-005
PH03A	S	10-07-19 11:35	2 ft	639278-006
PH04	S	10-07-19 12:00	1 ft	639278-007
PH04A	S	10-07-19 12:20	2 ft	639278-008
PH05	S	10-07-19 12:05	1 ft	639278-009
PH05A	S	10-07-19 12:25	2 ft	639278-010

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: Corral Canyon CTB

Project ID: *012919117*
Work Order Number(s): *639278*

Report Date: *11-OCT-19*
Date Received: *10/08/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3103920 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 639278-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 639278-001, -002, -003, -004, -005, -006, -007, -008, -009, -010.
The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Ethylbenzene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.
Samples in the analytical batch are: 639278-001, -002, -003, -004, -005, -006, -007, -008, -009, -010

Certificate of Analysis Summary 639278

LT Environmental, Inc., Arvada, CO

Project Name: Corral Canyon CTB

Project Id: 012919117
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue Oct-08-19 08:47 am
Report Date: 11-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	639278-001		639278-002		639278-003		639278-004		639278-005		639278-006	
	Field Id:	PH01		PH01A		PH02		PH02A		PH03		PH03A	
	Depth:	1- ft		2- ft		1- ft		2- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-07-19 10:55		Oct-07-19 11:00		Oct-07-19 11:10		Oct-07-19 11:15		Oct-07-19 11:30		Oct-07-19 11:35	
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Oct-08-19 16:00		Oct-08-19 16:00		Oct-08-19 16:00		Oct-08-19 16:00		Oct-08-19 16:00		Oct-08-19 16:00	
	Analyzed:	Oct-09-19 23:12		Oct-09-19 23:32		Oct-09-19 23:52		Oct-10-19 00:12		Oct-10-19 00:32		Oct-10-19 00:52	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00399	0.00399	<0.00399	0.00399	<0.00399	0.00399	<0.00396	0.00396	<0.00398	0.00398	<0.00400	0.00400
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Oct-08-19 15:35		Oct-08-19 15:35		Oct-08-19 15:35		Oct-08-19 15:35		Oct-08-19 15:35		Oct-08-19 15:35	
	Analyzed:	Oct-08-19 16:34		Oct-08-19 16:41		Oct-08-19 17:02		Oct-08-19 17:09		Oct-08-19 17:15		Oct-08-19 17:22	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		207	5.05	55.9	5.05	229	4.98	35.1	5.00	260	5.01	169	4.96
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Oct-09-19 17:00		Oct-09-19 17:00		Oct-09-19 17:00		Oct-09-19 17:00		Oct-09-19 17:00		Oct-09-19 17:00	
	Analyzed:	Oct-09-19 22:41		Oct-09-19 23:43		Oct-10-19 00:04		Oct-10-19 00:25		Oct-10-19 00:46		Oct-10-19 01:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<49.9	49.9	<49.9	49.9	<49.8	49.8	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)		<49.9	49.9	<49.9	49.9	<49.9	49.9	<49.8	49.8	<49.9	49.9	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.9	49.9	<49.9	49.9	<49.8	49.8	<49.9	49.9	<50.0	50.0
Total GRO-DRO		<49.9	49.9	<49.9	49.9	<49.9	49.9	<49.8	49.8	<49.9	49.9	<50.0	50.0
Total TPH		<49.9	49.9	<49.9	49.9	<49.9	49.9	<49.8	49.8	<49.9	49.9	<50.0	50.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 639278

LT Environmental, Inc., Arvada, CO

Project Name: Corral Canyon CTB

Project Id: 012919117
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue Oct-08-19 08:47 am
Report Date: 11-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	639278-007		639278-008		639278-009		639278-010					
	Field Id:	PH04		PH04A		PH05		PH05A					
	Depth:	1- ft		2- ft		1- ft		2- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Oct-07-19 12:00		Oct-07-19 12:20		Oct-07-19 12:05		Oct-07-19 12:25					
BTEX by EPA 8021B SUB: T104704400-19-19	***Extracted:***	Oct-08-19 16:00		Oct-08-19 16:00		Oct-08-19 16:00		Oct-08-19 16:00					
	Analyzed:	Oct-10-19 01:13		Oct-10-19 01:33		Oct-10-19 01:53		Oct-10-19 02:13					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199				
Toluene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199				
Ethylbenzene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199				
m,p-Xylenes		<0.00402	0.00402	<0.00398	0.00398	<0.00398	0.00398	<0.00398	0.00398				
o-Xylene		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199				
Total Xylenes		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199				
Total BTEX		<0.00201	0.00201	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199				
Chloride by EPA 300 SUB: T104704400-19-19	***Extracted:***	Oct-08-19 15:35		Oct-08-19 15:35		Oct-08-19 15:35		Oct-08-19 15:35					
	Analyzed:	Oct-08-19 17:29		Oct-08-19 17:36		Oct-08-19 17:57		Oct-08-19 18:03					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		38.0	4.99	16.8	5.04	57.7	4.98	10.3	5.00				
TPH by SW8015 Mod SUB: T104704400-19-19	***Extracted:***	Oct-09-19 17:00		Oct-09-19 17:00		Oct-09-19 17:00		Oct-09-19 17:00					
	Analyzed:	Oct-10-19 01:28		Oct-10-19 01:49		Oct-10-19 02:09		Oct-10-19 02:30					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.0	50.0				
Diesel Range Organics (DRO)		<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.0	50.0				
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.0	50.0				
Total GRO-DRO		<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.0	50.0				
Total TPH		<49.8	49.8	<50.0	50.0	<50.0	50.0	<50.0	50.0				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-001	Date Collected:	10.07.19 10.55	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.08.19 15.35	Basis:	Wet Weight
Seq Number:	3103709			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**207**	5.05	mg/kg	10.08.19 16.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.09.19 17.00	Basis:	Wet Weight
Seq Number:	3103874			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.09.19 22.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.09.19 22.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.09.19 22.41	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.09.19 22.41	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.09.19 22.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	10.09.19 22.41	
o-Terphenyl	84-15-1	104	%	70-135	10.09.19 22.41	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-001	Date Collected:	10.07.19 10.55	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.08.19 16.00	Basis:	Wet Weight
Seq Number:	3103920			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.09.19 23.12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.09.19 23.12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.09.19 23.12	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.09.19 23.12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.09.19 23.12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.09.19 23.12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.09.19 23.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	86	%	70-130	10.09.19 23.12	
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.09.19 23.12	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-002	Date Collected:	10.07.19 11.00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.08.19 15.35	Basis:	Wet Weight
Seq Number:	3103709			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**55.9**	5.05	mg/kg	10.08.19 16.41		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.09.19 17.00	Basis:	Wet Weight
Seq Number:	3103874			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.09.19 23.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.09.19 23.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.09.19 23.43	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.09.19 23.43	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.09.19 23.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	10.09.19 23.43	
o-Terphenyl	84-15-1	110	%	70-135	10.09.19 23.43	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-002	Date Collected:	10.07.19 11.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.08.19 16.00	Basis:	Wet Weight
Seq Number:	3103920			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.09.19 23.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.09.19 23.32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.09.19 23.32	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.09.19 23.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.09.19 23.32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.09.19 23.32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.09.19 23.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	70-130	10.09.19 23.32	
4-Bromofluorobenzene	460-00-4	115	%	70-130	10.09.19 23.32	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-003	Date Collected:	10.07.19 11.10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.08.19 15.35	Basis:	Wet Weight
Seq Number:	3103709			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**229**	4.98	mg/kg	10.08.19 17.02		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.09.19 17.00	Basis:	Wet Weight
Seq Number:	3103874			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.10.19 00.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.10.19 00.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.10.19 00.04	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.10.19 00.04	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.10.19 00.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	10.10.19 00.04	
o-Terphenyl	84-15-1	104	%	70-135	10.10.19 00.04	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-003	Date Collected:	10.07.19 11.10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.08.19 16.00	Basis:	Wet Weight
Seq Number:	3103920			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.09.19 23.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.09.19 23.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.09.19 23.52	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.09.19 23.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.09.19 23.52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.09.19 23.52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.09.19 23.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	10.09.19 23.52	
1,4-Difluorobenzene	540-36-3	87	%	70-130	10.09.19 23.52	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-004	Date Collected:	10.07.19 11.15	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.08.19 15.35	Basis:	Wet Weight
Seq Number:	3103709			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**35.1**	5.00	mg/kg	10.08.19 17.09		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.09.19 17.00	Basis:	Wet Weight
Seq Number:	3103874			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.10.19 00.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.10.19 00.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.10.19 00.25	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.10.19 00.25	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.10.19 00.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	10.10.19 00.25	
o-Terphenyl	84-15-1	102	%	70-135	10.10.19 00.25	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-004	Date Collected:	10.07.19 11.15	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.08.19 16.00	Basis:	Wet Weight
Seq Number:	3103920			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.10.19 00.12	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.10.19 00.12	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.10.19 00.12	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	10.10.19 00.12	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.10.19 00.12	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.10.19 00.12	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.10.19 00.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	10.10.19 00.12	
1,4-Difluorobenzene	540-36-3	88	%	70-130	10.10.19 00.12	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-005	Date Collected:	10.07.19 11.30	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.08.19 15.35	Basis:	Wet Weight
Seq Number:	3103709			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**260**	5.01	mg/kg	10.08.19 17.15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.09.19 17.00	Basis:	Wet Weight
Seq Number:	3103874			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.10.19 00.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.10.19 00.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.10.19 00.46	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.10.19 00.46	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.10.19 00.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	10.10.19 00.46	
o-Terphenyl	84-15-1	111	%	70-135	10.10.19 00.46	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-005	Date Collected:	10.07.19 11.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.08.19 16.00	Basis:	Wet Weight
Seq Number:	3103920			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.10.19 00.32	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.10.19 00.32	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.10.19 00.32	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.10.19 00.32	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.10.19 00.32	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.10.19 00.32	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.10.19 00.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	88	%	70-130	10.10.19 00.32	
4-Bromofluorobenzene	460-00-4	116	%	70-130	10.10.19 00.32	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-006	Date Collected:	10.07.19 11.35	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.08.19 15.35	Basis:	Wet Weight
Seq Number:	3103709			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**169**	4.96	mg/kg	10.08.19 17.22		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.09.19 17.00	Basis:	Wet Weight
Seq Number:	3103874			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	10.10.19 01.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.10.19 01.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.10.19 01.07	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.10.19 01.07	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.10.19 01.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	10.10.19 01.07	
o-Terphenyl	84-15-1	105	%	70-135	10.10.19 01.07	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-006	Date Collected:	10.07.19 11.35	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.08.19 16.00	Basis:	Wet Weight
Seq Number:	3103920			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.10.19 00.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.10.19 00.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.10.19 00.52	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.10.19 00.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.10.19 00.52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.10.19 00.52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.10.19 00.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	87	%	70-130	10.10.19 00.52	
4-Bromofluorobenzene	460-00-4	116	%	70-130	10.10.19 00.52	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-007	Date Collected:	10.07.19 12.00	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.08.19 15.35	Basis:	Wet Weight
Seq Number:	3103709			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**38.0**	4.99	mg/kg	10.08.19 17.29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.09.19 17.00	Basis:	Wet Weight
Seq Number:	3103874			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.10.19 01.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.10.19 01.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.10.19 01.28	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.10.19 01.28	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.10.19 01.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	10.10.19 01.28	
o-Terphenyl	84-15-1	112	%	70-135	10.10.19 01.28	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-007	Date Collected:	10.07.19 12.00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.08.19 16.00	Basis:	Wet Weight
Seq Number:	3103920			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.10.19 01.13	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.10.19 01.13	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.10.19 01.13	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.10.19 01.13	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.10.19 01.13	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.10.19 01.13	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.10.19 01.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	74	%	70-130	10.10.19 01.13	
4-Bromofluorobenzene	460-00-4	127	%	70-130	10.10.19 01.13	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-008	Date Collected:	10.07.19 12.20	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.08.19 15.35	Basis:	Wet Weight
Seq Number:	3103709			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.8**	5.04	mg/kg	10.08.19 17.36		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.09.19 17.00	Basis:	Wet Weight
Seq Number:	3103874			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	10.10.19 01.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.10.19 01.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.10.19 01.49	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.10.19 01.49	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.10.19 01.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	10.10.19 01.49	
o-Terphenyl	84-15-1	113	%	70-135	10.10.19 01.49	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-008	Date Collected:	10.07.19 12.20	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.08.19 16.00	Basis:	Wet Weight
Seq Number:	3103920			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.10.19 01.33	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.10.19 01.33	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.10.19 01.33	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.10.19 01.33	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.10.19 01.33	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.10.19 01.33	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.10.19 01.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	10.10.19 01.33	
1,4-Difluorobenzene	540-36-3	78	%	70-130	10.10.19 01.33	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-009	Date Collected:	10.07.19 12.05	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.08.19 15.35	Basis:	Wet Weight
Seq Number:	3103709			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**57.7**	4.98	mg/kg	10.08.19 17.57		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.09.19 17.00	Basis:	Wet Weight
Seq Number:	3103874			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	10.10.19 02.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.10.19 02.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.10.19 02.09	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.10.19 02.09	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.10.19 02.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	10.10.19 02.09	
o-Terphenyl	84-15-1	116	%	70-135	10.10.19 02.09	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-009	Date Collected:	10.07.19 12.05	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.08.19 16.00	Basis:	Wet Weight
Seq Number:	3103920			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.10.19 01.53	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.10.19 01.53	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.10.19 01.53	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.10.19 01.53	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.10.19 01.53	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.10.19 01.53	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.10.19 01.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	10.10.19 01.53	
1,4-Difluorobenzene	540-36-3	85	%	70-130	10.10.19 01.53	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-010	Date Collected:	10.07.19 12.25	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.08.19 15.35	Basis:	Wet Weight
Seq Number:	3103709			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.3**	5.00	mg/kg	10.08.19 18.03		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.09.19 17.00	Basis:	Wet Weight
Seq Number:	3103874			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	10.10.19 02.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.10.19 02.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.10.19 02.30	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.10.19 02.30	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.10.19 02.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	10.10.19 02.30	
o-Terphenyl	84-15-1	123	%	70-135	10.10.19 02.30	

Certificate of Analytical Results 639278

LT Environmental, Inc., Arvada, CO

Corral Canyon CTB

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	10.08.19 08.47
Lab Sample Id:	639278-010	Date Collected:	10.07.19 12.25	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.08.19 16.00	Basis:	Wet Weight
Seq Number:	3103920			SUB:	T104704400-19-19

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.10.19 02.13	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.10.19 02.13	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.10.19 02.13	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.10.19 02.13	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.10.19 02.13	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.10.19 02.13	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.10.19 02.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	86	%	70-130	10.10.19 02.13	
4-Bromofluorobenzene	460-00-4	116	%	70-130	10.10.19 02.13	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

QC Summary 639278

LT Environmental, Inc.

Corral Canyon CTB

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3103709 — Matrix: Solid — Date Prep: 10.08.19
MB Sample Id: 7687719-1-BLK — LCS Sample Id: 7687719-1-BKS — LCSD Sample Id: 7687719-1-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	252	101	255	102	90-110	1	20	mg/kg	10.08.19 15:46	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3103709 — Matrix: Soil — Date Prep: 10.08.19
Parent Sample Id: 639154-009 — MS Sample Id: 639154-009 S — MSD Sample Id: 639154-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	128	251	378	100	368	96	90-110	3	20	mg/kg	10.08.19 16:07	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3103709 — Matrix: Soil — Date Prep: 10.08.19
Parent Sample Id: 639278-008 — MS Sample Id: 639278-008 S — MSD Sample Id: 639278-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	16.8	252	267	99	267	99	90-110	0	20	mg/kg	10.08.19 17:43	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3103874 — Matrix: Solid — Date Prep: 10.09.19
MB Sample Id: 7687818-1-BLK — LCS Sample Id: 7687818-1-BKS — LCSD Sample Id: 7687818-1-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	1160	116	1190	119	70-135	3	20	mg/kg	10.09.19 21:59	
Diesel Range Organics (DRO)	<15.0	1000	1200	120	1180	118	70-135	2	20	mg/kg	10.09.19 21:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		111		107		70-135	%	10.09.19 21:59
o-Terphenyl	106		116		108		70-135	%	10.09.19 21:59

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3103874 — Matrix: Solid — Date Prep: 10.09.19
MB Sample Id: 7687818-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.09.19 21:39	

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

QC Summary 639278

LT Environmental, Inc.

Corral Canyon CTB

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3103874 — Matrix: Soil — Date Prep: 10.09.19
Parent Sample Id: 639278-001 — MS Sample Id: 639278-001 S — MSD Sample Id: 639278-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	1100	110	1130	113	70-135	3	20	mg/kg	10.09.19 23:02	
Diesel Range Organics (DRO)	<15.0	999	1130	113	1150	115	70-135	2	20	mg/kg	10.09.19 23:02	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		106		70-135	%	10.09.19 23:02
o-Terphenyl	104		109		70-135	%	10.09.19 23:02

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3103920 — Matrix: Solid — Date Prep: 10.08.19
MB Sample Id: 7687715-1-BLK — LCS Sample Id: 7687715-1-BKS — LCSD Sample Id: 7687715-1-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	0.102	102	0.104	104	70-130	2	35	mg/kg	10.10.19 14:10	
Toluene	<0.00200	0.100	0.0967	97	0.100	100	70-130	3	35	mg/kg	10.10.19 14:10	
Ethylbenzene	<0.00200	0.100	0.102	102	0.107	107	70-130	5	35	mg/kg	10.10.19 14:10	
m,p-Xylenes	<0.00400	0.200	0.201	101	0.212	106	70-130	5	35	mg/kg	10.10.19 14:10	
o-Xylene	<0.00200	0.100	0.104	104	0.111	111	70-130	7	35	mg/kg	10.10.19 14:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		92		92		70-130	%	10.10.19 14:10
4-Bromofluorobenzene	99		102		107		70-130	%	10.10.19 14:10

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3103920 — Matrix: Soil — Date Prep: 10.08.19
Parent Sample Id: 639278-001 — MS Sample Id: 639278-001 S — MSD Sample Id: 639278-001 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	0.0938	95	0.0691	69	70-130	30	35	mg/kg	10.10.19 14:50	X
Toluene	<0.00198	0.0992	0.0821	83	0.0598	60	70-130	31	35	mg/kg	10.10.19 14:50	X
Ethylbenzene	<0.00198	0.0992	0.0769	78	0.0498	50	70-130	43	35	mg/kg	10.10.19 14:50	XF
m,p-Xylenes	<0.00397	0.198	0.149	75	0.0947	47	70-130	45	35	mg/kg	10.10.19 14:50	XF
o-Xylene	<0.00198	0.0992	0.0809	82	0.0553	55	70-130	38	35	mg/kg	10.10.19 14:50	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		84		70-130	%	10.10.19 14:50
4-Bromofluorobenzene	107		106		70-130	%	10.10.19 14:50

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

Chain of Custody

Work Order No: 639278

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

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrel
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:		dmoir@ltenv.com rmcafee@ltenv.com

Work Order Comments

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

Project Name:	Corral Canyon CTB	Turn Around	
Project Number:	012919117	Routine	☐
P.O. Number:	2RP-5466	Rush:	24hr
Sampler's Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	3.2	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	10

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH01	S	10/07/19	1055	1'	1	X	X	X
PH01A			1100	2'		X	X	X
PH02			1110	1'		X	X	X
PH02A			1115	2'		X	X	X
PH03			1130	1'		X	X	X
PH03A			1135	2'		X	X	X
PH04			1200	1'		X	X	X
PH04A			1205	2'		X	X	X
PH05			1220	1'		X	X	X
PH05A			1225	2'		X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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 SiO2 Na Sr Tl Sn U V Zn

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Robert McAfee		10/8/19 8:47	2			
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number **49575**

Date/Time: 10/08/19 10:02
Lab# From: **Carlsbad**
Lab# To: **Midland**

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

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

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
639278-001	S	PH01	10/07/19 10:55	SW8021B	BTEX by EPA 8021B	10/09/19	10/21/19	JKR	BR4FBZ BZ BZME EBZ X	
639278-001	S	PH01	10/07/19 10:55	SW8015MOD_NM	TPH by SW8015 Mod	10/09/19	10/21/19	JKR	GRO-DRO PHCC10C28 PI	
639278-001	S	PH01	10/07/19 10:55	E300_CL	Chloride by EPA 300	10/09/19	04/04/20	JKR	CL	
639278-002	S	PH01A	10/07/19 11:00	SW8021B	BTEX by EPA 8021B	10/09/19	10/21/19	JKR	BR4FBZ BZ BZME EBZ X	
639278-002	S	PH01A	10/07/19 11:00	E300_CL	Chloride by EPA 300	10/09/19	04/04/20	JKR	CL	
639278-002	S	PH01A	10/07/19 11:00	SW8015MOD_NM	TPH by SW8015 Mod	10/09/19	10/21/19	JKR	GRO-DRO PHCC10C28 PI	
639278-003	S	PH02	10/07/19 11:10	SW8021B	BTEX by EPA 8021B	10/09/19	10/21/19	JKR	BR4FBZ BZ BZME EBZ X	
639278-003	S	PH02	10/07/19 11:10	E300_CL	Chloride by EPA 300	10/09/19	04/04/20	JKR	CL	
639278-003	S	PH02	10/07/19 11:10	SW8015MOD_NM	TPH by SW8015 Mod	10/09/19	10/21/19	JKR	GRO-DRO PHCC10C28 PI	
639278-004	S	PH02A	10/07/19 11:15	SW8021B	BTEX by EPA 8021B	10/09/19	10/21/19	JKR	BR4FBZ BZ BZME EBZ X	
639278-004	S	PH02A	10/07/19 11:15	SW8015MOD_NM	TPH by SW8015 Mod	10/09/19	10/21/19	JKR	GRO-DRO PHCC10C28 PI	
639278-004	S	PH02A	10/07/19 11:15	E300_CL	Chloride by EPA 300	10/09/19	04/04/20	JKR	CL	
639278-005	S	PH03	10/07/19 11:30	SW8021B	BTEX by EPA 8021B	10/09/19	10/21/19	JKR	BR4FBZ BZ BZME EBZ X	
639278-005	S	PH03	10/07/19 11:30	SW8015MOD_NM	TPH by SW8015 Mod	10/09/19	10/21/19	JKR	GRO-DRO PHCC10C28 PI	
639278-005	S	PH03	10/07/19 11:30	E300_CL	Chloride by EPA 300	10/09/19	04/04/20	JKR	CL	
639278-006	S	PH03A	10/07/19 11:35	SW8021B	BTEX by EPA 8021B	10/09/19	10/21/19	JKR	BR4FBZ BZ BZME EBZ X	
639278-006	S	PH03A	10/07/19 11:35	E300_CL	Chloride by EPA 300	10/09/19	04/04/20	JKR	CL	
639278-006	S	PH03A	10/07/19 11:35	SW8015MOD_NM	TPH by SW8015 Mod	10/09/19	10/21/19	JKR	GRO-DRO PHCC10C28 PI	
639278-007	S	PH04	10/07/19 12:00	SW8021B	BTEX by EPA 8021B	10/09/19	10/21/19	JKR	BR4FBZ BZ BZME EBZ X	
639278-007	S	PH04	10/07/19 12:00	E300_CL	Chloride by EPA 300	10/09/19	04/04/20	JKR	CL	
639278-007	S	PH04	10/07/19 12:00	SW8015MOD_NM	TPH by SW8015 Mod	10/09/19	10/21/19	JKR	GRO-DRO PHCC10C28 PI	
639278-008	S	PH04A	10/07/19 12:20	E300_CL	Chloride by EPA 300	10/09/19	04/04/20	JKR	CL	
639278-008	S	PH04A	10/07/19 12:20	SW8021B	BTEX by EPA 8021B	10/09/19	10/21/19	JKR	BR4FBZ BZ BZME EBZ X	
639278-008	S	PH04A	10/07/19 12:20	SW8015MOD_NM	TPH by SW8015 Mod	10/09/19	10/21/19	JKR	GRO-DRO PHCC10C28 PI	
639278-009	S	PH05	10/07/19 12:05	SW8015MOD_NM	TPH by SW8015 Mod	10/09/19	10/21/19	JKR	GRO-DRO PHCC10C28 PI	

Inter-Office Shipment

IOS Number **49575**

Date/Time: 10/08/19 10:02

Lab# From: **Carlsbad**

Lab# To: **Midland**

Created by: Elizabeth Mcclellan

Delivery Priority:

Air Bill No.:

Please send report to: Jessica Kramer

Address: 1089 N Canal Street

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
639278-009	S	PH05	10/07/19 12:05	E300_CL	Chloride by EPA 300	10/09/19	04/04/20	JKR	CL	
639278-009	S	PH05	10/07/19 12:05	SW8021B	BTEX by EPA 8021B	10/09/19	10/21/19	JKR	BR4FBZ BZ BZME EBZ X	
639278-010	S	PH05A	10/07/19 12:25	SW8021B	BTEX by EPA 8021B	10/09/19	10/21/19	JKR	BR4FBZ BZ BZME EBZ X	
639278-010	S	PH05A	10/07/19 12:25	E300_CL	Chloride by EPA 300	10/09/19	04/04/20	JKR	CL	
639278-010	S	PH05A	10/07/19 12:25	SW8015MOD_NM	TPH by SW8015 Mod	10/09/19	10/21/19	JKR	GRO-DRO PHCC10C28 PI	

Inter Office Shipment or Sample Comments:

Relinquished By: Elizabeth McClellan

Date Relinquished: 10/08/2019

Received By: Brianna Teel

Date Received: 10/08/2019 13:45

Cooler Temperature: 0.4

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 49575

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

Sent By: Elizabeth McClellan **Date Sent:** 10/08/2019 10:02 AM

Received By: Brianna Teel **Date Received:** 10/08/2019 01:45 PM

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

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

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

Checklist reviewed by: Brianna Teel Date: 10/08/2019

Brianna Teel

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/08/2019 08:47:00 AM

Work Order #: 639278

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)?	3.2	
#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)?	**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: 10/08/2019

Checklist reviewed by: Jessica Kramer Date: 10/08/2019