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	NRM1928149276
District RP	1RP-5736
Facility ID	
Application ID	pRM1928149586

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.524507 Longitude -103.287760°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name NM – H St. NCT – 1 # 25	Site Type Well Site
Date Release Discovered 09/28/2019	API# *(if applicable)* 30-025-33357 (NM – H St. NCT – 1 #25)

Unit Letter	Section	Township	Range	County
O	31	20S	37E	LEA

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 1.93	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 94.77	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Fiberglass tank on location was struck by lightning causing the tank to rupture which started a fire and released contents onto the ground. The fire was extinguished by the rain. Additional third party resources have been retained to assist in the remediation.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM1928149276
District RP	1RP-5736
Facility ID	
Application ID	pRM1928149586

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 Kyle Littrell to emnrd-ocd-district1spills@state.nm.us, Jim Griswold (NMOCD) and Ryan Mann (SLO) on 9/28/2019 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: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 10/8/2019

email: Kyle_Littrell@xtoenergy.com Telephone:

OCD Only

Received by: Ramona Marcus Date: 10/08/2019

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	NRM1928149276
District RP	1RP-5736
Facility ID	
Application ID	pRM1928149586

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?	50-100 (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	NRM1928149276
District RP	1RP-5736
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: _____Kyle Littrell_____ Title: _____SH&E Coordinator_____

Signature:_____ _____ Date: _____

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

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NRM1928149276
District RP	1RP-5736
Facility ID	
Application ID	pRM1928149586

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

January 9, 2020

District 1
New Mexico Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88240

RE: Closure Request
NM – H St. NCT - 1 #25
Remediation Permit Number 1RP-5736
Incident Number NRM1928149276
Lea County, New Mexico

To Whom It May Concern:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, excavation, and soil sampling activities at the NM – H St. NCT - 1 #25 (Site) located in Unit O, Section 31, Township 20 South, Range 37 East, in Lea County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to address impacts to soil following a release of crude oil and produced water at the Site. Based on the results of the soil sampling events, XTO is submitting this Closure Request and requesting no further action (NFA) for Remediation Permit (RP) Number 1RP-5736.

RELEASE BACKGROUND

On September 28, 2019, a fiberglass tank on location was struck by lightning, causing the tank to rupture which started a fire and resulted in the release of 94.77 barrels (bbls) of produced water and 1.93 bbls of crude oil onto the caliche well pad and pasture soils. The fire was extinguished by precipitation in the area. No fluids were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on October 8, 2019 and was assigned RP Number 1RP-5736.

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 50 to 100 feet below ground surface (bgs) based on the nearest groundwater well data. The nearest permitted groundwater well with depth to groundwater data is the United States Geological Survey (USGS) well number 323138103172001, located approximately 1,146 feet northwest of the Site. The groundwater well has a depth to groundwater of 79 feet bgs and a total depth of 144 feet bgs. Ground surface

elevation at the water well location is 3,538 feet above mean sea level (amsl), which is approximately 8 feet lower in elevation than the Site. The closest continuously flowing water or significant watercourse to the Site is a freshwater pond located approximately 2.30 miles northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located in a low potential karst area.

CLOSURE CRITERIA

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

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

Additionally, a Closure Criteria of 600 mg/kg chloride was applied to the undeveloped pasture that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top four feet for areas to be reclaimed following remediation.

SITE ASSESSMENT, DELINEATION, AND EXCAVATION ACTIVITIES

On October 15, 2019, LTE personnel inspected the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. LTE personnel collected four preliminary soil samples (SS01 through SS04) from within the release extent from a depth of approximately 0.5 feet bgs to assess the lateral extent of impacted soil. Soil from the preliminary soil samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was conducted during excavation activities. Photographs are included in Attachment 1.

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

oil range organics (ORO) following EPA Method 8015M/D, and chloride following EPA Method 300.0.

Based on the laboratory analytical results for the preliminary soil samples and field observations, excavation activities did not appear to be warranted; however, additional assessment activities were scheduled to further confirm the presence or absence of impacted soil. Laboratory analytical results for the preliminary soil samples are presented on Figure 2 and summarized in Table 1.

On December 18, 2019, LTE personnel returned to the Site to oversee additional soil assessment activities. Preliminary soil sample (SS05) was collected from within the release extent from a depth of approximately 0.5 feet bgs to further assess the lateral extent of impacted soil. In addition, five boreholes (BH01 through BH05) were advanced via hand auger, to a depth of two to four feet bgs, within the release extent. Boreholes BH01 through BH04 were advanced at SS01 through SS04 preliminary soil sample locations, and borehole BH05 was advanced within the release extent at the newly collected SS05 preliminary soil sample location.

Soil from the boreholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each borehole were documented on lithologic/soil sampling logs and are included as Attachment 2. The delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico. All boreholes were backfilled with the soil removed. The preliminary and delineation soil sample locations are depicted on Figure 2.

In order to address the surficial staining from the fire, LTE personnel oversaw the scraping of the pad and part of the pasture area affected by the fire with a track-mounted backhoe on December 31, 2019. Areas in the pasture that were scraped will be reseeded with Bureau of Land Management (BLM) Seed Mix #2 preceding the next rain event. Photographic documentation was conducted during the scraping activities and the photographs are included in Attachment 1.

ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria in soil samples SS01 through SS05 collected at approximately 0.5 foot bgs, in delineation borehole sample BH01 collected at two feet bgs, and borehole samples BH02/BH02A through BH05/BH05A collected at two and four feet bgs. Laboratory analytical results are presented on Figure 2 and summarized in Table 1. The complete laboratory analytical reports are included as Attachment 3.

CONCLUSIONS

Preliminary soil samples SS01 through SS05 and delineation borehole samples BH01/BH01A through BH05/BH05A were collected from within the release extent from depths ranging from 0.5 foot to four feet bgs to assess for the presence or absence of soil impacts as a result of the produced water and crude oil release on September 28, 2019. 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. Laboratory analytical results for all soil samples indicated benzene, BTEX, TPH-GRO, TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. XTO removed surficial soil stained by the fire.

Based on initial response efforts, the 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 warranted as a result of the produced water and crude oil release. XTO requests NFA for RP Number 2RP-5699.

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

Sincerely,

LT ENVIRONMENTAL, INC.

T Morrissey

Tacoma Morrissey
Staff Geologist

Ashley L. Ager

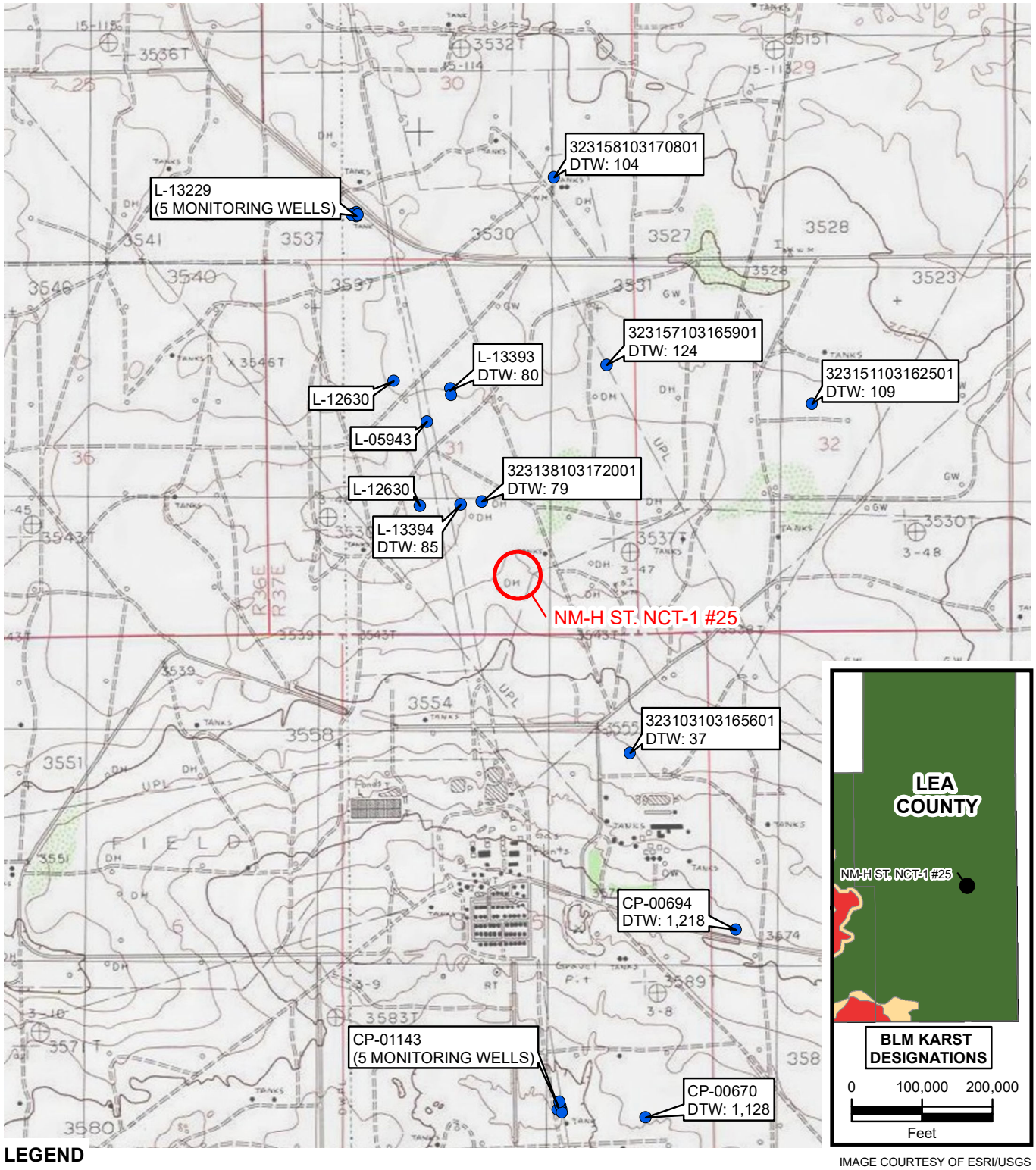
Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Ryan Mann, State Land Office
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

Appendices:

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

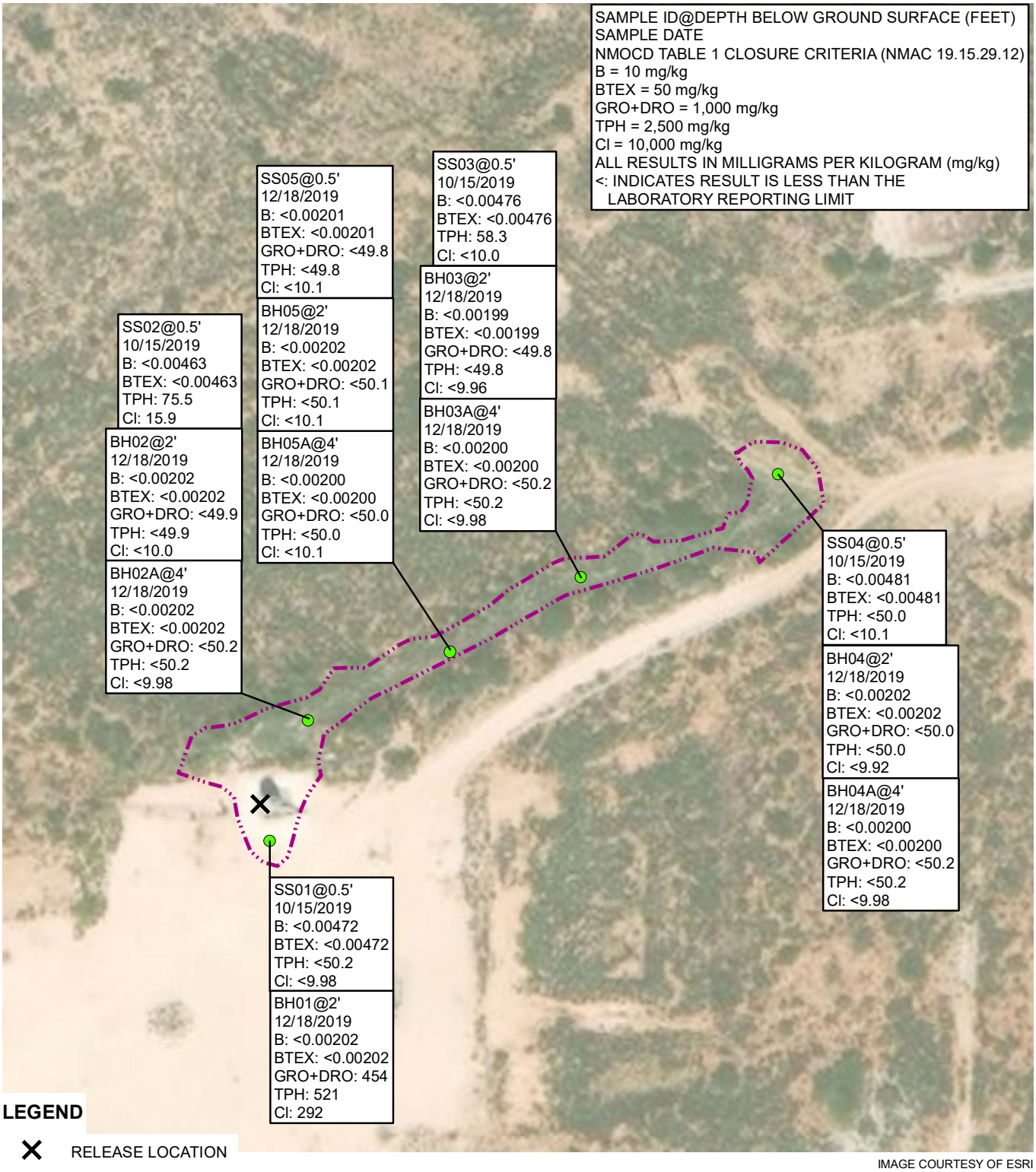
FIGURES



NOTE: REMEDIATION PERMIT NUMBER 1RP-5736
DTW: DEPTH TO WATER IN FEET

FIGURE 1
SITE LOCATION MAP
NM-H ST. NCT-1 #25
UNIT O SEC 31 T20S R37E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919252_NM-H ST. NCT-1 #25\012919252_FIG01_SL_5736_1.mxd



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 1RP-5736

FIGURE 2
SOIL SAMPLE LOCATIONS
NM-H ST. NCT-1 #25
UNIT O SEC 31 T20S R37E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012919252_NM-H ST. NCT-1 #25\012919252_FIG02_SS LOC_5736_1.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

NM-H St. NCT-1 # 25
REMEDIATION PERMIT NUMBER 1RP-5736
LEA 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)
NMOCD Table 1 Closure Criteria			**10**	NE	NE	NE	**50**	NE	NE	NE	**1,000**	**2,500**	**10,000**
SS01	0.5	10/15/2019	<0.00472	<0.00472	<0.00472	<0.00472	<0.00472	<50.2	<50.2	<50.2	<50.2	<50.2	<9.98
SS02	0.5	10/15/2019	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<50.2	75.5	<50.2	75.5	75.5	15.9*
SS03	0.5	10/15/2019	<0.00476	<0.00476	<0.00476	<0.00476	<0.00476	<50.2	58.3	<50.2	58.3	58.3	<10.0*
SS04	0.5	10/15/2019	<0.00481	<0.00481	<0.00481	<0.00481	<0.00481	<50.0	<50.0	<50.0	<50.0	<50.0	<10.1*
SS05	0.5	12/18/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	<10.1*
BH01	2	12/18/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	454	67.2	454	521	292
BH02	2	12/18/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	<10.0*
BH02A	4	12/18/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	<9.98*
BH03	2	12/18/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	<9.96*
BH03A	4	12/18/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	<9.98*
BH04	2	12/18/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	<9.92*
BH04A	4	12/18/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	<9.98*
BH05	2	12/18/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	<10.1*
BH05A	4	12/18/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	<10.1*

Notes:

bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram
MRO - motor oil range organics
NMAC - New Mexico Administrative Code
NMOCD - New Mexico Oil Conservation Division
NE - not established
TPH - total petroleum hydrocarbons
Bold - indicates result exceeds the applicable regulatory standard
< - indicates result is below laboratory reporting limits
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018
* - indicates sample was collected in area to be reclaimed after remediation is complete; closure criteria for chloride concentrationin the top 4 feet of soil is 600 mg/kg

ATTACHMENT 1: PHOTOGRAPHIC LOG

Western view of release area during site assessment activities.

Project: 012919252	XTO Energy, Inc. NM-H St. NCT-1 #25	LTE Advancing Opportunity
October 15, 2019	Photographic Log	

Eastern view of release area during delineation soil sampling activities.

Project: 012919252	XTO Energy, Inc. NM-H St. NCT-1 #25	Advancing Opportunity
December 19, 2019	Photographic Log	

Eastern view of release after scraping activity on pad.

Project: 012919252	XTO Energy, Inc. NM-H St. NCT-1 #25	LTE Advancing Opportunity
December 31, 2019	Photographic Log	

Southwestern view of scraping activity in pasture.

Project: 012919252	XTO Energy, Inc. NM-H St. NCT-1 #25	LTE Advancing Opportunity
December 31, 2019	Photographic Log	

ATTACHMENT 2: LITHOLOGIC SOIL SAMPLE LOGS

LT Environmental, Inc.

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

Compliance · Engineering · Remediation

Identifier: BH01	Date: 12/18/19
Project Name: NM-Hwy. NCT-1 #125	RP Number: IRP-5736
Logged By: WM	Method: Hand Auger
Lat/Long:	Field Screening: TPH Cl'
Hole Diameter: 4"	Total Depth: @ 2'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
M	184	0.6	N	BH01	0 1 2 3 4 5 6 7 8 9 10 11 12		SP-SC	Fine SAnd, clay, NC, LP, Rd/Br, Moist, PS

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

Compliance · Engineering · Remediation

Identifier: BH02	Date: 12/18/19		
Project Name: NMH St. NCT-1 #25	RP Number: 1RP-5736		
Logged By: WM	Method: Hand Auger		
Lat/Long:	Field Screening: TPH, Cl⁻	Hole Diameter: 4"	Total Depth: 2'

Comments:

LITHOLOGIC / SOIL SAMPLING LOG

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
M	K124	0.5	N	BH02	0–2		SP-SC	Fine SAnd, Clay, & NC, LP, Rd/Br, Moist, PS
M	K124	0.5	N	BH02A	2–4			SAA

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

Compliance · Engineering · Remediation

Identifier: BH03	Date: 12/18/19
Project Name: NM-H St. NCT-1 #25	RP Number: 1RP-5736
Logged By: WM	Method: Hand Auger
Hole Diameter: 4"	Total Depth: 2'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: TPH, Cl'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
M	2124	0.4	N	BH03	0–2		SP-SC	Fine SAND, clay, NC, LP, Rd/BR, moist, PS
M	<124	0.1	N	BH03A	2–4			

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

Compliance · Engineering · Remediation

Identifier: BH04	Date: 12/18/19		
Project Name: NM-Hst. NCT-1 #25	RP Number: 1RP-5736		
Logged By: WM	Method: Hand Auger		
Lat/Long:	Field Screening: TPH, Cl	Hole Diameter: 4"	Total Depth: 2'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
M	<124	0.1	N	BH04	2		SP-SC	Fine SAND, clay, NC, LP, RD/BC, Moist, PS
M	<124	0.2	N	BH04A	4		SP-SC	

LT Environmental, Inc.

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

Compliance · Engineering · Remediation

Identifier: BH05	Date: 12/18/19
Project Name: NM HSt. Nct 1 #25	RP Number: 1RP 5736
Logged By: WM	Method: Hand Auger
Lat/Long:	Field Screening: TPH, Cl'
Hole Diameter: 4"	Total Depth: 4'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
M	1124	0.2	N	SS05	0		SP-SC	Fine Sand, Clay, NC, LP, Rd/BC, Moist, PS
M	1124	0.2	N	BH05	1			
M	1124	0.2	N	BH05A	2			
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

ATTACHMENTS 3 : LABORATORY ANALYTICAL REPORTS

Analytical Report 640112

for

LT Environmental, Inc.

Project Manager: Dan Moir

NM-H St. NCT -1 #25

012919245

17-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)

17-OCT-19

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

Reference: XENCO Report No(s): **640112**
NM-H St. NCT -1 #25
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) 640112. 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. 640112 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 640112

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	10-15-19 15:34	0.5 ft	640112-001
SS02	S	10-15-19 15:36	0.5 ft	640112-002
SS03	S	10-15-19 15:39	0.5 ft	640112-003
SS04	S	10-15-19 15:41	0.5 ft	640112-004

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: NM-H St. NCT -1 #25

Project ID: *012919245*
Work Order Number(s): *640112*

Report Date: *17-OCT-19*
Date Received: *10/16/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3104603 BTEX by EPA 8021B

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

Certificate of Analysis Summary 640112

LT Environmental, Inc., Arvada, CO

Project Name: NM-H St. NCT -1 #25

Project Id: 012919245
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed Oct-16-19 09:53 am
Report Date: 17-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	640112-001		640112-002		640112-003		640112-004					
	Field Id:	SS01		SS02		SS03		SS04					
	Depth:	0.5- ft		0.5- ft		0.5- ft		0.5- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Oct-15-19 15:34		Oct-15-19 15:36		Oct-15-19 15:39		Oct-15-19 15:41					
BTEX by EPA 8021B	***Extracted:***	Oct-16-19 11:10		Oct-16-19 11:10		Oct-16-19 11:10		Oct-16-19 11:10					
	Analyzed:	Oct-16-19 18:54		Oct-17-19 09:57		Oct-17-19 10:16		Oct-17-19 10:35					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00472	0.00472	<0.00463	0.00463	<0.00476	0.00476	<0.00481	0.00481				
Toluene		<0.00472	0.00472	<0.00463	0.00463	<0.00476	0.00476	<0.00481	0.00481				
Ethylbenzene		<0.00472	0.00472	<0.00463	0.00463	<0.00476	0.00476	<0.00481	0.00481				
m,p-Xylenes		<0.00943	0.00943	<0.00926	0.00926	<0.00952	0.00952	<0.00962	0.00962				
o-Xylene		<0.00472	0.00472	<0.00463	0.00463	<0.00476	0.00476	<0.00481	0.00481				
Total Xylenes		<0.00472	0.00472	<0.00463	0.00463	<0.00476	0.00476	<0.00481	0.00481				
Total BTEX		<0.00472	0.00472	<0.00463	0.00463	<0.00476	0.00476	<0.00481	0.00481				
Chloride by EPA 300	***Extracted:***	Oct-16-19 14:10		Oct-16-19 14:10		Oct-16-19 14:10		Oct-16-19 14:10					
	Analyzed:	Oct-16-19 15:08		Oct-16-19 15:15		Oct-16-19 15:22		Oct-16-19 15:29					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		<9.98	9.98	15.9	10.1	<10.0	10.0	<10.1	10.1				
TPH by SW8015 Mod	***Extracted:***	Oct-16-19 11:20		Oct-16-19 11:20		Oct-16-19 11:20		Oct-16-19 11:20					
	Analyzed:	Oct-17-19 12:36		Oct-17-19 12:56		Oct-17-19 12:56		Oct-17-19 13:16					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	<50.2	50.2	<50.2	50.2	<50.0	50.0				
Diesel Range Organics (DRO)		<50.2	50.2	75.5	50.2	58.3	50.2	<50.0	50.0				
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<50.2	50.2	<50.2	50.2	<50.0	50.0				
Total GRO-DRO		<50.2	50.2	75.5	50.2	58.3	50.2	<50.0	50.0				
Total TPH		<50.2	50.2	75.5	50.2	58.3	50.2	<50.0	50.0				

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 640112

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	10.16.19 09.53
Lab Sample Id:	640112-001	Date Collected:	10.15.19 15.34	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.16.19 14.10	Basis:	Wet Weight
Seq Number:	3104507				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	10.16.19 15.08	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ELM			% Moisture:	
Analyst:	DTH	Date Prep:	10.16.19 11.20	Basis:	Wet Weight
Seq Number:	3104625				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.17.19 12.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.17.19 12.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.17.19 12.36	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.17.19 12.36	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.17.19 12.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	10.17.19 12.36	
o-Terphenyl	84-15-1	105	%	70-135	10.17.19 12.36	

Certificate of Analytical Results 640112

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	10.16.19 09.53
Lab Sample Id:	640112-001	Date Collected:	10.15.19 15.34	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.16.19 11.10	Basis:	Wet Weight
Seq Number:	3104603				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00472	0.00472	mg/kg	10.16.19 18.54	U	1
Toluene	108-88-3	<0.00472	0.00472	mg/kg	10.16.19 18.54	U	1
Ethylbenzene	100-41-4	<0.00472	0.00472	mg/kg	10.16.19 18.54	U	1
m,p-Xylenes	179601-23-1	<0.00943	0.00943	mg/kg	10.16.19 18.54	U	1
o-Xylene	95-47-6	<0.00472	0.00472	mg/kg	10.16.19 18.54	U	1
Total Xylenes	1330-20-7	<0.00472	0.00472	mg/kg	10.16.19 18.54	U	1
Total BTEX		<0.00472	0.00472	mg/kg	10.16.19 18.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	10.16.19 18.54	
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.16.19 18.54	

Certificate of Analytical Results 640112

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	10.16.19 09.53
Lab Sample Id:	640112-002	Date Collected:	10.15.19 15.36	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.16.19 14.10	Basis:	Wet Weight
Seq Number:	3104507				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15.9**	10.1	mg/kg	10.16.19 15.15		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ELM			% Moisture:	
Analyst:	DTH	Date Prep:	10.16.19 11.20	Basis:	Wet Weight
Seq Number:	3104625				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.17.19 12.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	**75.5**	50.2	mg/kg	10.17.19 12.56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.17.19 12.56	U	1
Total GRO-DRO	PHC628	**75.5**	50.2	mg/kg	10.17.19 12.56		1
Total TPH	PHC635	**75.5**	50.2	mg/kg	10.17.19 12.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	10.17.19 12.56	
o-Terphenyl	84-15-1	97	%	70-135	10.17.19 12.56	

Certificate of Analytical Results 640112

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	10.16.19 09.53
Lab Sample Id:	640112-002	Date Collected:	10.15.19 15.36	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.16.19 11.10	Basis:	Wet Weight
Seq Number:	3104603				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00463	0.00463	mg/kg	10.17.19 09.57	U	1
Toluene	108-88-3	<0.00463	0.00463	mg/kg	10.17.19 09.57	U	1
Ethylbenzene	100-41-4	<0.00463	0.00463	mg/kg	10.17.19 09.57	U	1
m,p-Xylenes	179601-23-1	<0.00926	0.00926	mg/kg	10.17.19 09.57	U	1
o-Xylene	95-47-6	<0.00463	0.00463	mg/kg	10.17.19 09.57	U	1
Total Xylenes	1330-20-7	<0.00463	0.00463	mg/kg	10.17.19 09.57	U	1
Total BTEX		<0.00463	0.00463	mg/kg	10.17.19 09.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.17.19 09.57	
4-Bromofluorobenzene	460-00-4	119	%	70-130	10.17.19 09.57	

Certificate of Analytical Results 640112

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	10.16.19 09.53
Lab Sample Id:	640112-003	Date Collected:	10.15.19 15.39	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.16.19 14.10	Basis:	Wet Weight
Seq Number:	3104507				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	10.16.19 15.22	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ELM			% Moisture:	
Analyst:	DTH	Date Prep:	10.16.19 11.20	Basis:	Wet Weight
Seq Number:	3104625				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.17.19 12.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	**58.3**	50.2	mg/kg	10.17.19 12.56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.17.19 12.56	U	1
Total GRO-DRO	PHC628	**58.3**	50.2	mg/kg	10.17.19 12.56		1
Total TPH	PHC635	**58.3**	50.2	mg/kg	10.17.19 12.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	10.17.19 12.56	
o-Terphenyl	84-15-1	93	%	70-135	10.17.19 12.56	

Certificate of Analytical Results 640112

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	10.16.19 09.53
Lab Sample Id:	640112-003	Date Collected:	10.15.19 15.39	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.16.19 11.10	Basis:	Wet Weight
Seq Number:	3104603				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00476	0.00476	mg/kg	10.17.19 10.16	U	1
Toluene	108-88-3	<0.00476	0.00476	mg/kg	10.17.19 10.16	U	1
Ethylbenzene	100-41-4	<0.00476	0.00476	mg/kg	10.17.19 10.16	U	1
m,p-Xylenes	179601-23-1	<0.00952	0.00952	mg/kg	10.17.19 10.16	U	1
o-Xylene	95-47-6	<0.00476	0.00476	mg/kg	10.17.19 10.16	U	1
Total Xylenes	1330-20-7	<0.00476	0.00476	mg/kg	10.17.19 10.16	U	1
Total BTEX		<0.00476	0.00476	mg/kg	10.17.19 10.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	126	%	70-130	10.17.19 10.16	
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.17.19 10.16	

Certificate of Analytical Results 640112

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	10.16.19 09.53
Lab Sample Id:	640112-004	Date Collected:	10.15.19 15.41	Sample Depth:	0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.16.19 14.10	Basis:	Wet Weight
Seq Number:	3104507				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	10.16.19 15.29	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	ELM			% Moisture:	
Analyst:	DTH	Date Prep:	10.16.19 11.20	Basis:	Wet Weight
Seq Number:	3104625				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.17.19 13.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.17.19 13.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.17.19 13.16	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.17.19 13.16	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.17.19 13.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	10.17.19 13.16	
o-Terphenyl	84-15-1	105	%	70-135	10.17.19 13.16	

Certificate of Analytical Results 640112

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	10.16.19 09.53
Lab Sample Id:	640112-004	Date Collected:	10.15.19 15.41	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	10.16.19 11.10	Basis:	Wet Weight
Seq Number:	3104603				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00481	0.00481	mg/kg	10.17.19 10.35	U	1
Toluene	108-88-3	<0.00481	0.00481	mg/kg	10.17.19 10.35	U	1
Ethylbenzene	100-41-4	<0.00481	0.00481	mg/kg	10.17.19 10.35	U	1
m,p-Xylenes	179601-23-1	<0.00962	0.00962	mg/kg	10.17.19 10.35	U	1
o-Xylene	95-47-6	<0.00481	0.00481	mg/kg	10.17.19 10.35	U	1
Total Xylenes	1330-20-7	<0.00481	0.00481	mg/kg	10.17.19 10.35	U	1
Total BTEX		<0.00481	0.00481	mg/kg	10.17.19 10.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	130	%	70-130	10.17.19 10.35	
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.17.19 10.35	

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 640112

LT Environmental, Inc.

NM-H St. NCT -1 #25

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Seq Number: 3104507 Matrix: Solid Date Prep: 10.16.19
MB Sample Id: 7688273-1-BLK LCS Sample Id: 7688273-1-BKS LCSD Sample Id: 7688273-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	262	105	262	105	90-110	0	20	mg/kg	10.16.19 14:31	

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Seq Number: 3104507 Matrix: Soil Date Prep: 10.16.19
Parent Sample Id: 640122-001 MS Sample Id: 640122-001 S MSD Sample Id: 640122-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	233	1000	1350	112	1300	107	90-110	4	20	mg/kg	10.16.19 14:53	X

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Seq Number: 3104625 Matrix: Solid Date Prep: 10.16.19
MB Sample Id: 7688283-1-BLK LCS Sample Id: 7688283-1-BKS LCSD Sample Id: 7688283-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1000	100	1100	110	70-135	10	35	mg/kg	10.17.19 10:48	
Diesel Range Organics (DRO)	<50.0	1000	910	91	954	95	70-135	5	35	mg/kg	10.17.19 10:48	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		115		123		70-135	%	10.17.19 10:48
o-Terphenyl	98		110		121		70-135	%	10.17.19 10:48

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Seq Number: 3104625 Matrix: Solid Date Prep: 10.16.19
MB Sample Id: 7688283-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.17.19 10:28	

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 640112

LT Environmental, Inc.

NM-H St. NCT -1 #25

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3104625 — Matrix: Soil — Date Prep: 10.16.19
Parent Sample Id: 640116-001 — MS Sample Id: 640116-001 S — MSD Sample Id: 640116-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1080	108	995	100	70-135	8	35	mg/kg	10.17.19 12:16	
Diesel Range Organics (DRO)	<50.2	1000	1000	100	848	85	70-135	16	35	mg/kg	10.17.19 12:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		112		70-135	%	10.17.19 12:16
o-Terphenyl	109		105		70-135	%	10.17.19 12:16

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3104603 — Matrix: Solid — Date Prep: 10.16.19
MB Sample Id: 7688285-1-BLK — LCS Sample Id: 7688285-1-BKS — LCSD Sample Id: 7688285-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.106	106	0.109	109	70-130	3	35	mg/kg	10.16.19 14:46	
Toluene	<0.00100	0.100	0.100	100	0.104	104	70-130	4	35	mg/kg	10.16.19 14:46	
Ethylbenzene	<0.00100	0.100	0.100	100	0.104	104	71-129	4	35	mg/kg	10.16.19 14:46	
m,p-Xylenes	<0.00200	0.200	0.213	107	0.224	112	70-135	5	35	mg/kg	10.16.19 14:46	
o-Xylene	<0.00100	0.100	0.105	105	0.111	111	71-133	6	35	mg/kg	10.16.19 14:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		107		107		70-130	%	10.16.19 14:46
4-Bromofluorobenzene	112		110		117		70-130	%	10.16.19 14:46

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3104603 — Matrix: Soil — Date Prep: 10.16.19
Parent Sample Id: 640116-001 — MS Sample Id: 640116-001 S — MSD Sample Id: 640116-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00101	0.101	0.100	99	0.0982	99	70-130	2	35	mg/kg	10.16.19 15:24	
Toluene	<0.00101	0.101	0.0964	95	0.0941	95	70-130	2	35	mg/kg	10.16.19 15:24	
Ethylbenzene	<0.00101	0.101	0.0957	95	0.0929	93	71-129	3	35	mg/kg	10.16.19 15:24	
m,p-Xylenes	<0.00201	0.201	0.204	101	0.197	99	70-135	3	35	mg/kg	10.16.19 15:24	
o-Xylene	<0.00101	0.101	0.101	100	0.0976	98	71-133	3	35	mg/kg	10.16.19 15:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		106		70-130	%	10.16.19 15:24
4-Bromofluorobenzene	120		118		70-130	%	10.16.19 15:24

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

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 40112

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian Office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	fsmith@ltenv.com, dmoir@ltenv.com

Work Order Comments

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

Project Name:	NM-H St. NCT-1 #25	Turn Around	
Project Number:	012919245	Routine ☐	
P.O. Number:	IRP-5736	Rush: 24 hrs	
Sampler's Name:	Fatima Smith	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	1.4	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:	4

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SS01	S	10/15/19	1534	0.5'	1	X	X	X
SS02	S	10/15/19	1536	0.5'	1	X	X	X
SS03	S	10/15/19	1539	0.5'	1	X	X	X
SS04	S	10/15/19	1541	0.5'	1	X	X	X

Work Order Notes

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

Sample Comments

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

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Fatima	Anna Byers	10/16/19 @ 0935			
2				Anna Byers		10/16/19 9:53
3						
4						
5						
6						

Revised Date 051418 Rev. 2018.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10/16/2019 09:53:00 AM

Work Order #: 640112

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

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.4
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 10/16/2019

Checklist reviewed by: Jessica Kramer Date: 10/16/2019

Analytical Report 647019

for

LT Environmental, Inc.

Project Manager: Dan Moir

NM-H St. NCT -1 #25

012919252

20-DEC-19

Collected By: William Mather

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)

20-DEC-19

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

Reference: XENCO Report No(s): **647019**
NM-H St. NCT -1 #25
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) 647019. 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. 647019 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 647019

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	12-18-19 10:57	2 ft	647019-001
BH02	S	12-18-19 11:03	2 ft	647019-002
BH02A	S	12-18-19 11:13	4 ft	647019-003
BH03	S	12-18-19 11:20	2 ft	647019-004
BH03A	S	12-18-19 11:26	4 ft	647019-005
BH04	S	12-18-19 11:30	2 ft	647019-006
BH04A	S	12-18-19 11:40	4 ft	647019-007
BH05	S	12-18-19 13:10	2 ft	647019-008
BH05A	S	12-18-19 13:13	4 ft	647019-009
SS05	S	12-18-19 13:06	.5 ft	647019-010

CASE NARRATIVE

Client Name: LT Environmental, Inc.
Project Name: NM-H St. NCT -1 #25

Project ID:	*012919252*	Report Date:	*20-DEC-19*
Work Order Number(s):	*647019*	Date Received:	*12/19/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3111207 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 647019

LT Environmental, Inc., Arvada, CO

Project Name: NM-H St. NCT -1 #25

Project Id: 012919252
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Thu Dec-19-19 09:41 am
Report Date: 20-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	*Lab Id:*	647019-001		647019-002		647019-003		647019-004		647019-005		647019-006	
	Field Id:	BH01		BH02		BH02A		BH03		BH03A		BH04	
	Depth:	2- ft		2- ft		4- ft		2- ft		4- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Dec-18-19 10:57		Dec-18-19 11:03		Dec-18-19 11:13		Dec-18-19 11:20		Dec-18-19 11:26		Dec-18-19 11:30	
BTEX by EPA 8021B	*Extracted:*	Dec-19-19 13:21		Dec-19-19 13:21		Dec-19-19 13:21		Dec-19-19 13:21		Dec-19-19 13:21		Dec-19-19 13:21	
	Analyzed:	Dec-19-19 20:51		Dec-19-19 21:10		Dec-19-19 17:34		Dec-19-19 17:53		Dec-19-19 18:12		Dec-19-19 18:31	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Toluene		<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Ethylbenzene		<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
m,p-Xylenes		<0.00404	0.00404	<0.00403	0.00403	<0.00404	0.00404	<0.00398	0.00398	<0.00399	0.00399	<0.00403	0.00403
o-Xylene		<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Total Xylenes		<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Total BTEX		<0.00202	0.00202	<0.00202	0.00202	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Chloride by EPA 300	*Extracted:*	Dec-19-19 12:00		Dec-19-19 12:00		Dec-19-19 12:00		Dec-19-19 12:00		Dec-19-19 12:00		Dec-19-19 12:00	
	Analyzed:	Dec-19-19 13:21		Dec-19-19 13:39		Dec-19-19 13:45		Dec-19-19 13:50		Dec-19-19 13:56		Dec-19-19 14:13	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		292	10.0	<10.0	10.0	<9.98	9.98	<9.96	9.96	<9.98	9.98	<9.92	9.92
TPH by SW8015 Mod	*Extracted:*	Dec-19-19 11:20		Dec-19-19 11:20		Dec-19-19 11:20		Dec-19-19 11:20		Dec-19-19 11:20		Dec-19-19 11:20	
	Analyzed:	Dec-19-19 12:28		Dec-19-19 12:48		Dec-19-19 12:48		Dec-19-19 13:08		Dec-19-19 13:08		Dec-19-19 13:28	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<49.9	49.9	<50.2	50.2	<49.8	49.8	<50.2	50.2	<50.0	50.0
Diesel Range Organics (DRO)		454	50.1	<49.9	49.9	<50.2	50.2	<49.8	49.8	<50.2	50.2	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		67.2	50.1	<49.9	49.9	<50.2	50.2	<49.8	49.8	<50.2	50.2	<50.0	50.0
Total GRO-DRO		454	50.1	<49.9	49.9	<50.2	50.2	<49.8	49.8	<50.2	50.2	<50.0	50.0
Total TPH		521	50.1	<49.9	49.9	<50.2	50.2	<49.8	49.8	<50.2	50.2	<50.0	50.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 647019

LT Environmental, Inc., Arvada, CO

Project Name: NM-H St. NCT -1 #25

Project Id: 012919252
Contact: Dan Moir
Project Location: Eddy County

Date Received in Lab: Thu Dec-19-19 09:41 am
Report Date: 20-DEC-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	647019-007		647019-008		647019-009		647019-010					
	Field Id:	BH04A		BH05		BH05A		SS05					
	Depth:	4- ft		2- ft		4- ft		.5- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Dec-18-19 11:40		Dec-18-19 13:10		Dec-18-19 13:13		Dec-18-19 13:06					
BTEX by EPA 8021B	*Extracted:*	Dec-19-19 13:21		Dec-19-19 13:21		Dec-19-19 13:21		Dec-19-19 13:21					
	Analyzed:	Dec-19-19 19:35		Dec-19-19 19:54		Dec-19-19 20:13		Dec-19-19 20:32					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201				
Toluene		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201				
Ethylbenzene		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201				
m,p-Xylenes		<0.00400	0.00400	<0.00404	0.00404	<0.00400	0.00400	<0.00402	0.00402				
o-Xylene		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201				
Total Xylenes		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201				
Total BTEX		<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201				
Chloride by EPA 300	*Extracted:*	Dec-19-19 12:00		Dec-19-19 12:00		Dec-19-19 12:00		Dec-19-19 12:00					
	Analyzed:	Dec-19-19 14:19		Dec-19-19 14:25		Dec-19-19 14:31		Dec-19-19 14:37					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		<9.98	9.98	<10.1	10.1	<10.1	10.1	<10.1	10.1				
TPH by SW8015 Mod	*Extracted:*	Dec-19-19 11:20		Dec-19-19 11:20		Dec-19-19 11:20		Dec-19-19 11:20					
	Analyzed:	Dec-19-19 13:28		Dec-19-19 13:48		Dec-19-19 13:48		Dec-19-19 14:07					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	<50.1	50.1	<50.0	50.0	<49.8	49.8				
Diesel Range Organics (DRO)		<50.2	50.2	<50.1	50.1	<50.0	50.0	<49.8	49.8				
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<50.1	50.1	<50.0	50.0	<49.8	49.8				
Total GRO-DRO		<50.2	50.2	<50.1	50.1	<50.0	50.0	<49.8	49.8				
Total TPH		<50.2	50.2	<50.1	50.1	<50.0	50.0	<49.8	49.8				

Jessica Kramer
Project Assistant

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LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-001	Date Collected:	12.18.19 10.57	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 12.00	Basis:	Wet Weight
Seq Number:	3111196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**292**	10.0	mg/kg	12.19.19 13.21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.19.19 11.20	Basis:	Wet Weight
Seq Number:	3111216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.19.19 12.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	**454**	50.1	mg/kg	12.19.19 12.28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**67.2**	50.1	mg/kg	12.19.19 12.28		1
Total GRO-DRO	PHC628	**454**	50.1	mg/kg	12.19.19 12.28		1
Total TPH	PHC635	**521**	50.1	mg/kg	12.19.19 12.28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.19.19 12.28	
o-Terphenyl	84-15-1	100	%	70-135	12.19.19 12.28	

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LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH01**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-001	Date Collected:	12.18.19 10.57	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 13.21	Basis:	Wet Weight
Seq Number:	3111207				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.19.19 20.51	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.19.19 20.51	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.19.19 20.51	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.19.19 20.51	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.19.19 20.51	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.19.19 20.51	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.19.19 20.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.19.19 20.51	
4-Bromofluorobenzene	460-00-4	116	%	70-130	12.19.19 20.51	

Certificate of Analytical Results 647019

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-002	Date Collected:	12.18.19 11.03	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 12.00	Basis:	Wet Weight
Seq Number:	3111196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	12.19.19 13.39	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.19.19 11.20	Basis:	Wet Weight
Seq Number:	3111216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.19.19 12.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.19.19 12.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.19.19 12.48	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.19.19 12.48	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.19.19 12.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	12.19.19 12.48	
o-Terphenyl	84-15-1	102	%	70-135	12.19.19 12.48	

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LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH02**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-002	Date Collected:	12.18.19 11.03	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 13.21	Basis:	Wet Weight
Seq Number:	3111207				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.19.19 21.10	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.19.19 21.10	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.19.19 21.10	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.19.19 21.10	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.19.19 21.10	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.19.19 21.10	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.19.19 21.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.19.19 21.10	
4-Bromofluorobenzene	460-00-4	117	%	70-130	12.19.19 21.10	

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LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-003	Date Collected:	12.18.19 11.13	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 12.00	Basis:	Wet Weight
Seq Number:	3111196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	12.19.19 13.45	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.19.19 11.20	Basis:	Wet Weight
Seq Number:	3111216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.19.19 12.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.19.19 12.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.19.19 12.48	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.19.19 12.48	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.19.19 12.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.19.19 12.48	
o-Terphenyl	84-15-1	101	%	70-135	12.19.19 12.48	

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LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH02A**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-003	Date Collected:	12.18.19 11.13	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 13.21	Basis:	Wet Weight
Seq Number:	3111207				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.19.19 17.34	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.19.19 17.34	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.19.19 17.34	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.19.19 17.34	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.19.19 17.34	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.19.19 17.34	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.19.19 17.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	12.19.19 17.34	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.19.19 17.34	

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LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-004	Date Collected:	12.18.19 11.20	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 12.00	Basis:	Wet Weight
Seq Number:	3111196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	12.19.19 13.50	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.19.19 11.20	Basis:	Wet Weight
Seq Number:	3111216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.19.19 13.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.19.19 13.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.19.19 13.08	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.19.19 13.08	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.19.19 13.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.19.19 13.08	
o-Terphenyl	84-15-1	107	%	70-135	12.19.19 13.08	

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LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH03**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-004	Date Collected:	12.18.19 11.20	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 13.21	Basis:	Wet Weight
Seq Number:	3111207				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.19.19 17.53	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.19.19 17.53	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.19.19 17.53	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.19.19 17.53	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.19.19 17.53	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.19.19 17.53	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.19.19 17.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	123	%	70-130	12.19.19 17.53	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.19.19 17.53	

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LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-005	Date Collected:	12.18.19 11.26	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 12.00	Basis:	Wet Weight
Seq Number:	3111196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	12.19.19 13.56	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.19.19 11.20	Basis:	Wet Weight
Seq Number:	3111216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.19.19 13.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.19.19 13.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.19.19 13.08	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.19.19 13.08	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.19.19 13.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.19.19 13.08	
o-Terphenyl	84-15-1	102	%	70-135	12.19.19 13.08	

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LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH03A**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-005	Date Collected:	12.18.19 11.26	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 13.21	Basis:	Wet Weight
Seq Number:	3111207				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.19 18.12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.19 18.12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.19 18.12	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.19 18.12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.19 18.12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.19 18.12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.19 18.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	122	%	70-130	12.19.19 18.12	
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.19.19 18.12	

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LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-006	Date Collected:	12.18.19 11.30	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 12.00	Basis:	Wet Weight
Seq Number:	3111196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	12.19.19 14.13	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.19.19 11.20	Basis:	Wet Weight
Seq Number:	3111216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.19.19 13.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.19.19 13.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.19.19 13.28	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.19.19 13.28	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.19.19 13.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.19.19 13.28	
o-Terphenyl	84-15-1	101	%	70-135	12.19.19 13.28	

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LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH04**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-006	Date Collected:	12.18.19 11.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 13.21	Basis:	Wet Weight
Seq Number:	3111207				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.19.19 18.31	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.19.19 18.31	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.19.19 18.31	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.19.19 18.31	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.19.19 18.31	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.19.19 18.31	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.19.19 18.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	122	%	70-130	12.19.19 18.31	
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.19.19 18.31	

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LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH04A**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-007	Date Collected:	12.18.19 11.40	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 12.00	Basis:	Wet Weight
Seq Number:	3111196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	12.19.19 14.19	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.19.19 11.20	Basis:	Wet Weight
Seq Number:	3111216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.19.19 13.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.19.19 13.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.19.19 13.28	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.19.19 13.28	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.19.19 13.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.19.19 13.28	
o-Terphenyl	84-15-1	103	%	70-135	12.19.19 13.28	

Certificate of Analytical Results 647019

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH04A**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-007	Date Collected:	12.18.19 11.40	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 13.21	Basis:	Wet Weight
Seq Number:	3111207				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.19 19.35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.19 19.35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.19 19.35	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.19.19 19.35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.19 19.35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.19 19.35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.19 19.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.19.19 19.35	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.19.19 19.35	

Certificate of Analytical Results 647019

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH05**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-008	Date Collected:	12.18.19 13.10	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 12.00	Basis:	Wet Weight
Seq Number:	3111196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	12.19.19 14.25	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.19.19 11.20	Basis:	Wet Weight
Seq Number:	3111216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.19.19 13.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.19.19 13.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.19.19 13.48	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.19.19 13.48	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.19.19 13.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	12.19.19 13.48	
o-Terphenyl	84-15-1	104	%	70-135	12.19.19 13.48	

Certificate of Analytical Results 647019

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH05**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-008	Date Collected:	12.18.19 13.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 13.21	Basis:	Wet Weight
Seq Number:	3111207				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.19.19 19.54	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.19.19 19.54	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.19.19 19.54	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.19.19 19.54	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.19.19 19.54	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.19.19 19.54	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.19.19 19.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	124	%	70-130	12.19.19 19.54	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.19.19 19.54	

Certificate of Analytical Results 647019

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH05A**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-009	Date Collected:	12.18.19 13.13	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 12.00	Basis:	Wet Weight
Seq Number:	3111196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	12.19.19 14.31	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.19.19 11.20	Basis:	Wet Weight
Seq Number:	3111216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.19.19 13.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.19.19 13.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.19.19 13.48	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.19.19 13.48	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.19.19 13.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	12.19.19 13.48	
o-Terphenyl	84-15-1	103	%	70-135	12.19.19 13.48	

Certificate of Analytical Results 647019

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**BH05A**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-009	Date Collected:	12.18.19 13.13	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 13.21	Basis:	Wet Weight
Seq Number:	3111207				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.19 20.13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.19 20.13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.19 20.13	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.19.19 20.13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.19 20.13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.19 20.13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.19 20.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	12.19.19 20.13	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.19.19 20.13	

Certificate of Analytical Results 647019

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-010	Date Collected:	12.18.19 13.06	Sample Depth:	.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 12.00	Basis:	Wet Weight
Seq Number:	3111196				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	12.19.19 14.37	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH			% Moisture:	
Analyst:	DTH	Date Prep:	12.19.19 11.20	Basis:	Wet Weight
Seq Number:	3111216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.19.19 14.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.19.19 14.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.19.19 14.07	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.19.19 14.07	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.19.19 14.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.19.19 14.07	
o-Terphenyl	84-15-1	103	%	70-135	12.19.19 14.07	

Certificate of Analytical Results 647019

LT Environmental, Inc., Arvada, CO

NM-H St. NCT -1 #25

Sample Id:	**SS05**	Matrix:	Soil	Date Received:	12.19.19 09.41
Lab Sample Id:	647019-010	Date Collected:	12.18.19 13.06	Sample Depth:	.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MAB			% Moisture:	
Analyst:	MAB	Date Prep:	12.19.19 13.21	Basis:	Wet Weight
Seq Number:	3111207				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.19.19 20.32	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.19.19 20.32	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.19.19 20.32	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.19.19 20.32	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.19.19 20.32	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.19.19 20.32	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.19.19 20.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	12.19.19 20.32	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.19.19 20.32	

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 647019

LT Environmental, Inc.

NM-H St. NCT -1 #25

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Seq Number: 3111196 Matrix: Solid Date Prep: 12.19.19
MB Sample Id: 7692886-1-BLK LCS Sample Id: 7692886-1-BKS LCSD Sample Id: 7692886-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	253	101	253	101	90-110	0	20	mg/kg	12.19.19 12:12	

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Seq Number: 3111196 Matrix: Soil Date Prep: 12.19.19
Parent Sample Id: 647019-001 MS Sample Id: 647019-001 S MSD Sample Id: 647019-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	292	201	509	108	514	110	90-110	1	20	mg/kg	12.19.19 13:27	

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Seq Number: 3111196 Matrix: Soil Date Prep: 12.19.19
Parent Sample Id: 647022-001 MS Sample Id: 647022-001 S MSD Sample Id: 647022-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1170	198	1390	111	1370	100	90-110	1	20	mg/kg	12.19.19 14:48	X

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Seq Number: 3111216 Matrix: Solid Date Prep: 12.19.19
MB Sample Id: 7692900-1-BLK LCS Sample Id: 7692900-1-BKS LCSD Sample Id: 7692900-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	913	91	862	86	70-135	6	35	mg/kg	12.19.19 11:49	
Diesel Range Organics (DRO)	<50.0	1000	773	77	743	74	70-135	4	35	mg/kg	12.19.19 11:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		112		115		70-135	%	12.19.19 11:49
o-Terphenyl	95		108		104		70-135	%	12.19.19 11:49

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Seq Number: 3111216 Matrix: Solid Date Prep: 12.19.19
MB Sample Id: 7692900-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.19.19 11:29	

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 647019

LT Environmental, Inc.

NM-H St. NCT -1 #25

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3111216 — Matrix: Soil — Date Prep: 12.19.19
Parent Sample Id: 647022-001 — MS Sample Id: 647022-001 S — MSD Sample Id: 647022-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	890	88	948	95	70-135	6	35	mg/kg	12.19.19 12:08	
Diesel Range Organics (DRO)	52.6	1010	785	73	826	78	70-135	5	35	mg/kg	12.19.19 12:08	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		91		70-135	%	12.19.19 12:08
o-Terphenyl	84		84		70-135	%	12.19.19 12:08

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3111207 — Matrix: Solid — Date Prep: 12.19.19
MB Sample Id: 7692887-1-BLK — LCS Sample Id: 7692887-1-BKS — LCSD Sample Id: 7692887-1-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	0.0879	88	0.0918	92	70-130	4	35	mg/kg	12.19.19 13:57	
Toluene	<0.00200	0.100	0.0895	90	0.0941	94	70-130	5	35	mg/kg	12.19.19 13:57	
Ethylbenzene	<0.00200	0.100	0.0883	88	0.0932	93	71-129	5	35	mg/kg	12.19.19 13:57	
m,p-Xylenes	<0.00400	0.200	0.187	94	0.198	99	70-135	6	35	mg/kg	12.19.19 13:57	
o-Xylene	<0.00200	0.100	0.0944	94	0.0999	100	71-133	6	35	mg/kg	12.19.19 13:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		101		101		70-130	%	12.19.19 13:57
4-Bromofluorobenzene	116		115		117		70-130	%	12.19.19 13:57

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3111207 — Matrix: Soil — Date Prep: 12.19.19
Parent Sample Id: 647022-001 — MS Sample Id: 647022-001 S — MSD Sample Id: 647022-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0829	82	0.0830	82	70-130	0	35	mg/kg	12.19.19 14:35	
Toluene	0.00226	0.101	0.0844	81	0.0827	80	70-130	2	35	mg/kg	12.19.19 14:35	
Ethylbenzene	0.00668	0.101	0.0816	74	0.0863	79	71-129	6	35	mg/kg	12.19.19 14:35	
m,p-Xylenes	0.0145	0.202	0.183	83	0.169	76	70-135	8	35	mg/kg	12.19.19 14:35	
o-Xylene	0.0111	0.101	0.0898	78	0.0845	73	71-133	6	35	mg/kg	12.19.19 14:35	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		70-130	%	12.19.19 14:35
4-Bromofluorobenzene	113		119		70-130	%	12.19.19 14:35

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

Chain of Custody

XENCO LABORATORIES

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

Work Order No: ~~447109~~ CM 12/19 447019

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849 Email:	wmather@ltenv.com, dmoir@ltenv.com	

Work Order Comments

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

Project Name:	NM-H St. NCT-1 #25	Turn Around	
Project Number:	12919252	Routine ☐	
P.O. Number:	Eddy County	Rush: 24hr	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	1.4	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

ANALYSIS REQUEST

Work Order Notes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
BH01	s	12/18/2019	10:57	2'	1	x	x	x	discrete
BH02	s	12/18/2019	11:03	2'	1	x	x	x	discrete
BH02A	s	12/18/2019	~~11:20~~ 11:13	4'	1	x	x	x	discrete
BH03	s	12/18/2019	11:20	2'	1	x	x	x	discrete
BH03A	s	12/18/2019	11:26	4'	1	x	x	x	discrete
BH04	s	12/18/2019	11:30	2'	1	x	x	x	discrete
BH04A	s	12/18/2019	11:40	4'	1	x	x	x	discrete
BH05	s	12/18/2019	13:10	2'	1	x	x	x	discrete
BH05A	s	12/18/2019	13:13	4'	1	x	x	x	discrete
SS05	s	12/18/2019	13:00	.5'	1	x	x	x	discrete

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag 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		12/19/19 0941	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1