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

October 19, 2018

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

RE: Closure Request
ND 19 Federal SWD No. 001
Remediation Permit Number 2RP-2663
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), is pleased to present the following letter report detailing the excavation of impacted soil and confirmation soil sampling activities at the ND 19 Federal SWD No. 001 (Site) in Unit A, Section 19, Township 24 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the soil sampling and excavation activities was to address impact to soil after a flex gasket on the wellhead failed, causing approximately 226 barrels (bbls) of produced water to release onto the surface of the well pad and adjacent pasture. The release impacted approximately 15,300 square feet of well pad and 4,000 square feet of pasture. Approximately 85 bbls of free-standing fluid was recovered with a vacuum truck. The former operator reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on December 15, 2014, and was assigned Remediation Permit Number (RP) 2RP-2663 (Attachment 1). Although the release occurred while the facility was operated by the previous operator, XTO is the current operator and is committed to addressing any releases that remain unresolved. Based on the results of the confirmation soil sampling activities, XTO is requesting no further action for this release.

BACKGROUND

The release and remediation occurred prior to August 14, 2018; therefore, LTE ranked the Site according to criteria in the NMOCD 1993 *Guidelines for Leaks, Spills, and Releases.* The site ranking determined appropriate cleanup standards. Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest water well data and known aquifer properties. The nearest permitted water well is C 02109, located approximately 0.44 miles south of the Site, with a depth to groundwater of 150 feet bgs and a total depth of 130 feet bgs. The well is approximately 19 feet lower in elevation than the Site. The closest surface water to the Site is an unnamed arroyo located approximately 257 feet southeast of the Site. Based on these criteria, the NMOCD site ranking for remediation action

levels is 10, and the following remediation action levels apply: 10 milligrams per kilogram (mg/kg) benzene; 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX); and 1,000 mg/kg total petroleum hydrocarbons (TPH). Based on standard practice in the region at the time of the release, LTE applied a site-specific chloride action level of 600 mg/kg.

SOIL SAMPLING

On February 5, 2018, an LTE scientist collected five preliminary soil samples (SS1 through SS5) to assess the lateral extent of soil impacts. Soil sample SS1 was collected from the surface of the well pad near the wellhead release point. To eliminate the effects from weathering and natural degradation of contaminants at the ground surface, soil samples SS2 through SS5 were collected from each sample location at approximately 0.5 feet bgs. The soil sample locations, depicted on Figure 2, were selected based on information provided on the initial Form C-141 and field observations. The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler, and method of analysis and immediately placed on ice. The samples were delivered at 4 degrees Celsius (°C) under strict chain-of-custody procedures to Xenco Laboratories in Midland, Texas, for laboratory analysis of BTEX by United States Environmental Protection Agency (USEPA) Method 8021B, total petroleum hydrocarbons (TPH)-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) by USEPA Method SW8015 Modified, and chloride by USEPA Method 300.0.

Laboratory analytical results for preliminary surface soil sample SS1 indicated the chloride concentration exceeded the NMOCD remediation action level at a concentration of 2,360 mg/kg. Laboratory analytical results for preliminary soil samples SS2 through SS5 indicated that BTEX, TPH, and chloride concentrations were compliant with the NMOCD site-specific remediation action levels. Laboratory analytical results are summarized in Table 1 and the laboratory analytical report is included in Attachment 2. Based on the soil sample laboratory analytical results, excavation of impacted soil was required.

EXCAVATION ACTIVITIES

During August and September 2018, LTE personnel returned to the Site to oversee excavation of impacted soil as indicated by field screening and laboratory analytical results exceeding the NMOCD remediation action level for chloride in preliminary soil sample SS1. Excavation activities commenced on August 30, 2018, and concluded on September 20, 2018. To delineate hydrocarbon and chloride impacts to soil and direct excavation activities, LTE screened soil samples using a photo-ionization detector (PID) and Hach® chloride QuanTab® test strips. Upon completing excavation activities, LTE collected excavation sidewall soil samples (SW01 through SW16) from a depth of 2-feet bgs and excavation floor soil samples (FS01 through FS09) from a depth of 4-feet bgs. While on site for excavation activities, LTE collected four additional surface soil samples (SS06 through SS09) to confirm the extent of the release. The soil samples were

collected, handled, and analyzed as previously described and submitted to Xenco Laboratories in Midland, Texas.

The final excavation measured approximately 24,240 square feet with a depth of 4 feet bgs throughout the excavation. Approximately 3,486 cubic yards of soil were removed from the excavation. The impacted soil was transported and properly disposed of at the R360 Landfill in Red Bluff, New Mexico. The final excavation extent and soil sample locations are illustrated on Figure 2.

ANALYTICAL RESULTS

Laboratory analytical results for the confirmation surface soil samples (SS2 through SS5 and SS06 through SSS09) indicated that BTEX, TPH, and chloride concentrations were compliant with NMOCD remediation action levels and no excavation was required in these areas. Excavation activities commenced in the vicinity of preliminary surface soil sample SS1 based on laboratory analytical results exceeding the NMOCD remediation action level for chloride. Laboratory analytical results for the final excavation sidewall soil samples (SW01 through SW10 and SW13 through SW16) and final excavation floor soil samples (FS01 through FS04, FS07 through FS09) indicated that BTEX, TPH, and chloride concentrations were compliant with NMOCD remediation action levels.

Laboratory analytical results for the excavation sidewall samples (SW11 and SW12) and excavation floor samples (FS05 and FS06) collected in close proximity to the wellhead indicated that chloride concentrations exceeded the NMOCD remediation action level. XTO's safety policy restricts soil disturbing activities within a 10-foot radius of a wellhead. This safety policy is established to protect workers and to reduce the likelihood of compromising the integrity of the wellbore. This policy had to be enforced where impacted soil was identified within ten feet of the wellhead. The excavation was advanced to ten feet from the wellhead by hydro-vacuum to remove as much impacted soil as possible. Laboratory analytical results for soil samples SW11, SW12, FS05, and FS06 indicate that soil exceeding the NMOCD remediation action level for chloride was left in-place near the wellhead. Laboratory analytical results are summarized in Table 1, and the complete laboratory analytical reports are included in Attachment 2.

CONCLUSIONS

Laboratory analytical results for the final confirmation surface soil samples and final excavation soil samples indicate that BTEX, TPH, and chloride concentrations are compliant with NMOCD site-specific remediation action levels, with the exception of excavation sidewall samples SW11 and SW12 and excavation floor samples FS05 and FS06. Impacted soil was left in-place within 10 feet of the wellhead per XTO's safety policy as described above. The remaining impacted soil will be addressed when the Site is closed to allow for remediation to be completed safely.

Initial response efforts, natural degradation, and excavation of impacted soil have mitigated impacts at this Site. XTO requests no further action for release number 2RP-2663 until final reclamation, at which time the impacted soil left in place around the wellhead will be addressed. Upon approval of this request, XTO will backfill the excavation with caliche well pad material. An updated NMOCD Form C-141 is included in Attachment 1. A photographic log of the Site is included as Attachment 3.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Adrian Baker
Project Geologist

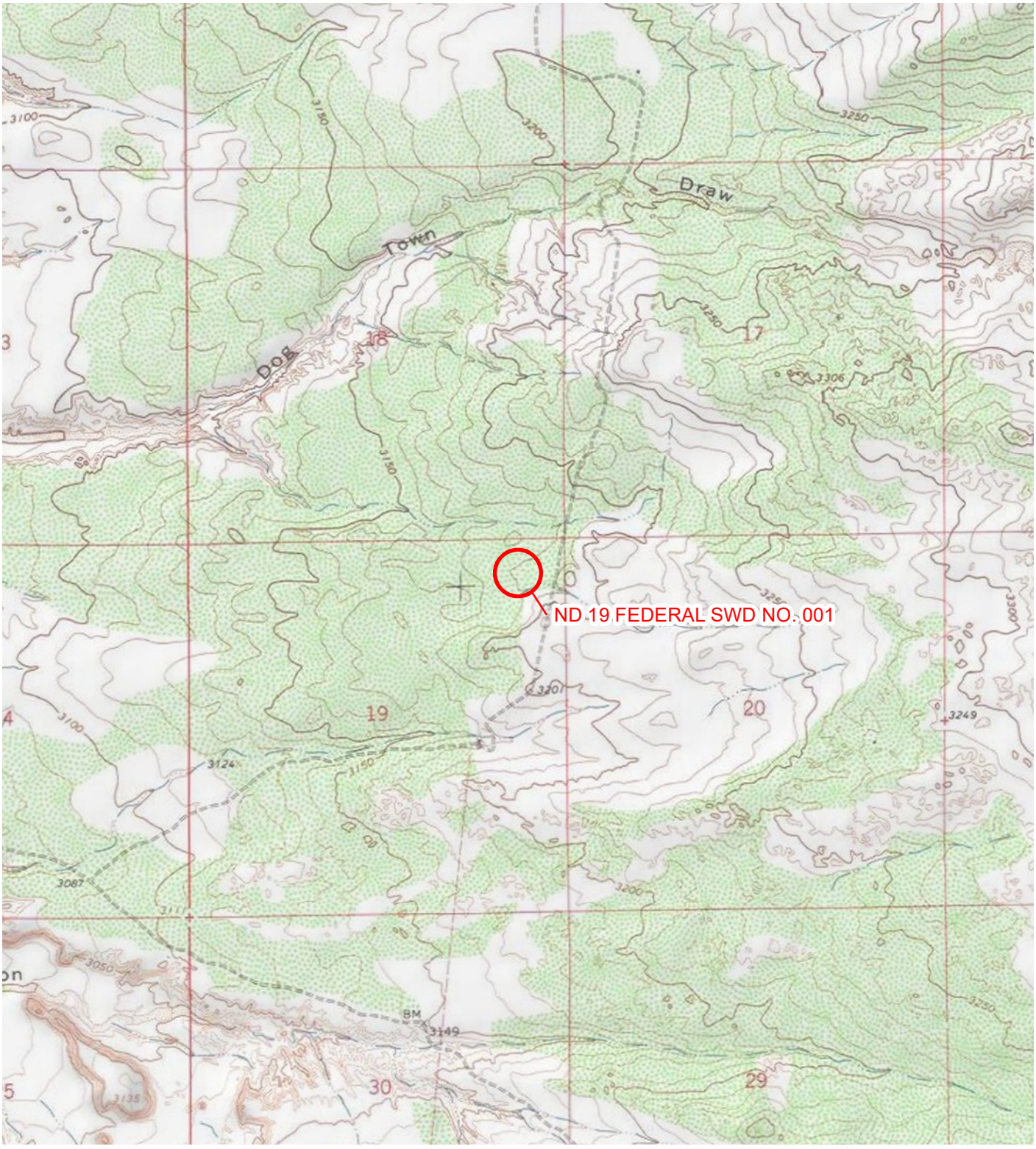
Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Maria Pruett, NMOCD
Jim Amos, BLM
Shelly Tucker, BLM

Attachments:

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

FIGURES



LEGEND

SITE LOCATION

IMAGE COURTESY OF ESRI/USGS

0 2,000 4,000

Feet

N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBER 2RP-2663

FIGURE 1
SITE LOCATION MAP
ND 19 FEDERAL SWD NO. 001
UNIT A SEC 19 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918040_ND 19_FEDERAL SWD_NO 001\012918040_FIG01_SL_2018.mxd

LEGEND

- PRELIMINARY SOIL SAMPLE
- FINAL CONFIRMATION SOIL SAMPLE
- EXCAVATION EXTENT

IMAGE COURTESY OF GOOGLE EARTH 2017

0 80 160

Feet

N

NOTE: REMEDIATION PERMIT NUMBER 2RP-2663

FIGURE 2
SOIL SAMPLE LOCATIONS
ND 19 FEDERAL SWD NO. 001
UNIT A SEC 19 T24S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918040_ND 19_FEDERAL SWD_NO 001\012918040_FIG02_SITE_2018.mxd

TABLE

TABLE 1
SOIL ANALYTICAL RESULTS
ND 19 FEDERAL SWD NO. 001
REMEDIATION PERMIT NUMBER 2RP-2663
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	C6-C10 GRO (mg/kg)	C10-C28 DRO (mg/kg)	C28-C40 ORO (mg/kg)	GRO and DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SS1	Surface	02/05/2018	<0.00382	<0.00382	<0.00382	<0.00382	<0.00382	<15.0	103	18.9	103	122	**2,360**
SS2	0.5	02/05/2018	<0.00351	<0.00351	<0.00351	<0.00351	<0.00351	<15.0	<15.0	<15.0	<15.0	<15.0	9.76
SS3	0.5	02/05/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<15.0	37.7	<15.0	37.7	37.7	137
SS4	0.5	02/05/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	10.9
SS5	0.5	02/05/2018	<0.00357	<0.00357	<0.00357	<0.00357	<0.00357	<14.9	<14.9	<14.9	<14.9	<14.9	147
FS01	4	09/05/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	212
SW01	2	09/05/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	172
SW02	2	09/05/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	12.7
SW03	2	09/05/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	70.3
FS02	4	09/10/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	149
SW04	2	09/10/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	416
SW05	2	09/11/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	17.1	<15.0	17.1	17.1	16.0
SW06	2	09/11/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	17.8	<15.0	17.8	17.8	132
FS03	4	09/12/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<14.9	<14.9	<14.9	<14.9	<14.9	572
SW07	2	09/12/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	308
SW08	2	09/12/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<4.96
FS04	4	09/14/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	379
FS05	4	09/14/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	**851**
FS06	4	09/14/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**1,260**
SW09	2	09/14/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	10.4
SW10	2	09/14/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	70.0
SW11	2	09/14/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	**1,160**
SW12	2	09/14/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	**703**
FS07	4	09/17/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	381
FS08	4	09/17/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	229
SW13	2	09/17/2018	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<14.9	<14.9	<14.9	<14.9	<14.9	355
SW14	2	09/17/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	143
SW15	2	09/17/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	39.3

TABLE 1 (Continued)
SOIL ANALYTICAL RESULTS
ND 19 FEDERAL SWD NO. 001
REMEDIATION PERMIT NUMBER 2RP-2663
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	C6-C10 GRO (mg/kg)	C10-C28 DRO (mg/kg)	C28-C40 ORO (mg/kg)	GRO and DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
SW16	2	09/17/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	284
FS09	4	09/20/2018	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	272
SS06	0.5	09/20/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	79.6
SS07	0.5	09/20/2018	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	14.8
SS08	0.5	09/20/2018	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<4.95
SS09	0.5	09/20/2018	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	<4.97
NMOCD Remediation Action Levels			10	NE	NE	NE	50	NE	NE	NE	NE	1,000	600

Notes:
bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
mg/kg - milligrams per kilogram
NE - not established
NMOCD - New Mexico Oil Conservation Division
DRO - diesel range organics
GRO - gasoline range organics
ORO - oil range organics
TPH - total petroleum hydrocarbons
< - indicates result is below laboratory reporting limits
Bold - indicates result exceeds the applicable regulatory standard.

ATTACHMENT 1: INITIAL/FINAL NMOCD FORM C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1435037409 3RP-737

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P.	Contact: Tony Savoie
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: ND 19 Federal SWD No.001	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-39713

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	19	24S	30E	516	North	705	East	Eddy

Latitude N 32.208897 **Longitude** W 103.914495

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 226 bbls.	Volume Recovered: 85 bbls.
Source of Release: Flex gasket on wellhead	Date and Hour of Occurrence: 12/3/14 at approximately 7:30 am	Date and Hour of Discovery: 12/3/14 at approximately 7:30 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher NMOCD	
By Whom? Bradley Blevins	Date and Hour: 12/13/14 at approximately ~~4:00~~ 3:25 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

NM OIL CONSERVATION
ARTESIA DISTRICT
15 2014
RECEIVED

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
A flex gasket on the wellhead failed releasing produced water on the well pad. All of the free standing fluid was recovered and the gasket was replaced.

Describe Area Affected and Cleanup Action Taken.*
The spill impacted approximately 15,300 sq.ft. of caliche well pad and approximately 4,000 sq.ft. pasture area. The impacted area was left as is pending final remediation. There was a significant area of produced water impact on the well pad prior to the release that was scheduled to be cleaned up due to the possible construction of a SWD facility on the well pad.
The spill area will be cleaned up in accordance to the NMOCD and BLM remediation guidelines.

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

Signature: Tony Savoie

Printed Name: Tony Savoie

Title: Waste Management and Remediation Specialist

E-mail Address: tasavoie@basspet.com

Date: 12/15/14 Phone: 432-556-8730

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By Mike Bratcher

Approval Date: 12/16/14 Expiration Date: N/A

Conditions of Approval: Attached ☐

Remediation per O.C.D. Rules & Guidelines
SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 1/16/15

2RP-2163

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	2RP-2663
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: XTO Energy, Inc	OGRID
Contact Name: Kyle Littrell	Contact Telephone: 432-221-7331
Contact email: Kyle_Littrell@xtoenergy.com	Incident # 2RP-2663
Contact mailing address: 522 W. Mermod, Suite 704 Carlsbad, NM 88220	

Location of Release Source

Latitude 32.208897° Longitude -103.914495°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: ND Federal SWD No. 001	Site Type: Exploration and Production
Date Release Discovered: 12/3/2014	API#: 30-015-39713

Unit Letter	Section	Township	Range	County
A	19	24S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls): 226 bbls	Volume Recovered (bbls): 85 bbls
	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:
A flex gasket on the wellhead failed releasing produced water on the well pad. All of the free-standing fluid was recovered and the gasket was replaced.

State of New Mexico
Oil Conservation Division

Incident ID	2RP-2663
District RP	
Facility ID	
Application ID	

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

Initial Response

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

☒ 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:

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 Coordinator

Signature: Date: 10/22/2018

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	2RP-2663
District RP	
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

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

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Coordinator

Signature: Date: 10/22/2018

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

OCD Only

Received by: Date:

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

Closure Approved by: Date:

Printed Name: Title:

ATTACHMENT 2: LABORATORY ANALYTICAL REPORTS

Analytical Report 575575

for

LT Environmental, Inc.

Project Manager: Adrian Baker

ND 19 Federal SWD No. 001 RP-2663

14-FEB-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

14-FEB-18

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

Reference: XENCO Report No(s): **575575**
ND 19 Federal SWD No. 001 RP-2663
Project Address: Carlsbad, NM

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 575575. 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. 575575 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
Odessa Laboratory Director

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 575575

LT Environmental, Inc., Arvada, CO

ND 19 Federal SWD No. 001 RP-2663

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS1	S	02-05-18 16:04	Surface	575575-001
SS2	S	02-05-18 16:15	6"	575575-002
SS3	S	02-05-18 16:09	6"	575575-003
SS4	S	02-05-18 16:11	6"	575575-004
SS5	S	02-05-18 16:07	6"	575575-005

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: ND 19 Federal SWD No. 001 RP-2663

Project ID:
Work Order Number(s): *575575*

Report Date: *14-FEB-18*
Date Received: *02/07/2018*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3040647 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3040738 BTEX by EPA 8021B
Surrogate 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 575575-005.
Surrogate 4-Bromofluorobenzene recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 575575-005,575575-002.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 575575

LT Environmental, Inc., Arvada, CO

Project Name: ND 19 Federal SWD No. 001 RP-2663

Project Id:

Contact: Adrian Baker

Project Location: Carlsbad, NM

Date Received in Lab: Wed Feb-07-18 08:00 am

Report Date: 14-FEB-18

Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	575575-001		575575-002		575575-003		575575-004		575575-005	
	Field Id:	SS1		SS2		SS3		SS4		SS5	
	Depth:	Surface-		6"-		6"-		6"-		6"-	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-05-18 16:04		Feb-05-18 16:15		Feb-05-18 16:09		Feb-05-18 16:11		Feb-05-18 16:07	
BTEX by EPA 8021B	***Extracted:***	Feb-08-18 08:45		Feb-08-18 08:45		Feb-07-18 14:10		Feb-07-18 14:10		Feb-08-18 08:45	
	Analyzed:	Feb-12-18 12:11		Feb-12-18 12:11		Feb-08-18 02:54		Feb-08-18 03:13		Feb-12-18 12:11	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00382	0.00382	<0.00351	0.00351	<0.00198	0.00198	<0.00199	0.00199	<0.00357	0.00357
Toluene		<0.00382	0.00382	<0.00351	0.00351	<0.00198	0.00198	<0.00199	0.00199	<0.00357	0.00357
Ethylbenzene		<0.00382	0.00382	<0.00351	0.00351	<0.00198	0.00198	<0.00199	0.00199	<0.00357	0.00357
m,p-Xylenes		<0.00763	0.00763	<0.00702	0.00702	<0.00396	0.00396	<0.00398	0.00398	<0.00714	0.00714
o-Xylene		<0.00382	0.00382	<0.00351	0.00351	<0.00198	0.00198	<0.00199	0.00199	<0.00357	0.00357
Total Xylenes		<0.00382	0.00382	<0.00351	0.00351	<0.00198	0.00198	<0.00199	0.00199	<0.00357	0.00357
Total BTEX		<0.00382	0.00382	<0.00351	0.00351	<0.00198	0.00198	<0.00199	0.00199	<0.00357	0.00357
Inorganic Anions by EPA 300	***Extracted:***	Feb-13-18 14:10		Feb-13-18 14:10		Feb-13-18 14:10		Feb-13-18 14:10		Feb-13-18 14:10	
	Analyzed:	Feb-13-18 16:23		Feb-13-18 16:30		Feb-13-18 16:51		Feb-13-18 16:58		Feb-13-18 17:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2360	24.7	9.76	4.98	137	4.94	10.9	4.97	147	4.95
TPH by SW8015 Mod	***Extracted:***	Feb-10-18 11:00		Feb-10-18 11:00		Feb-10-18 11:00		Feb-10-18 11:00		Feb-10-18 11:00	
	Analyzed:	Feb-10-18 22:35		Feb-10-18 23:39		Feb-10-18 23:59		Feb-11-18 00:20		Feb-11-18 00:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Diesel Range Organics (DRO)		103	15.0	<15.0	15.0	37.7	15.0	<15.0	15.0	<14.9	14.9
Oil Range Hydrocarbons (ORO)		18.9	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9
Total TPH		122	15.0	<15.0	15.0	37.7	15.0	<15.0	15.0	<14.9	14.9

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

Jessica Kramer
Odessa Laboratory Director

Final 1.000

Certificate of Analytical Results 575575

LT Environmental, Inc., Arvada, CO

ND 19 Federal SWD No. 001 RP-2663

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575575-001	Date Collected:	02.05.18 16.04	Sample Depth:	Surface

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	LRI			% Moisture:	
Analyst:	LRI	Date Prep:	02.13.18 14.10	Basis:	Wet Weight
Seq Number:	3040995				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2360**	24.7	mg/kg	02.13.18 16.23		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.10.18 11.00	Basis:	Wet Weight
Seq Number:	3040795				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.10.18 22.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	**103**	15.0	mg/kg	02.10.18 22.35		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**18.9**	15.0	mg/kg	02.10.18 22.35		1
Total TPH	PHC635	**122**	15.0	mg/kg	02.10.18 22.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	02.10.18 22.35	
o-Terphenyl	84-15-1	102	%	70-135	02.10.18 22.35	

Certificate of Analytical Results 575575

LT Environmental, Inc., Arvada, CO

ND 19 Federal SWD No. 001 RP-2663

Sample Id:	**SS1**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575575-001	Date Collected:	02.05.18 16.04	Sample Depth:	Surface
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.08.18 08.45	Basis:	Wet Weight
Seq Number:	3040738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00382	0.00382	mg/kg	02.12.18 12.11	U	1
Toluene	108-88-3	<0.00382	0.00382	mg/kg	02.12.18 12.11	U	1
Ethylbenzene	100-41-4	<0.00382	0.00382	mg/kg	02.12.18 12.11	U	1
m,p-Xylenes	179601-23-1	<0.00763	0.00763	mg/kg	02.12.18 12.11	U	1
o-Xylene	95-47-6	<0.00382	0.00382	mg/kg	02.12.18 12.11	U	1
Total Xylenes	1330-20-7	<0.00382	0.00382	mg/kg	02.12.18 12.11	U	1
Total BTEX		<0.00382	0.00382	mg/kg	02.12.18 12.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	80-120	02.12.18 12.11	
1,4-Difluorobenzene	540-36-3	86	%	80-120	02.12.18 12.11	

Certificate of Analytical Results 575575

LT Environmental, Inc., Arvada, CO

ND 19 Federal SWD No. 001 RP-2663

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575575-002	Date Collected:	02.05.18 16.15	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	LRI			% Moisture:	
Analyst:	LRI	Date Prep:	02.13.18 14.10	Basis:	Wet Weight
Seq Number:	3040995				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.76**	4.98	mg/kg	02.13.18 16.30		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.10.18 11.00	Basis:	Wet Weight
Seq Number:	3040795				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.10.18 23.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.10.18 23.39	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.10.18 23.39	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.10.18 23.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	02.10.18 23.39	
o-Terphenyl	84-15-1	91	%	70-135	02.10.18 23.39	

Certificate of Analytical Results 575575

LT Environmental, Inc., Arvada, CO

ND 19 Federal SWD No. 001 RP-2663

Sample Id:	**SS2**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575575-002	Date Collected:	02.05.18 16.15	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.08.18 08.45	Basis:	Wet Weight
Seq Number:	3040738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00351	0.00351	mg/kg	02.12.18 12.11	U	1
Toluene	108-88-3	<0.00351	0.00351	mg/kg	02.12.18 12.11	U	1
Ethylbenzene	100-41-4	<0.00351	0.00351	mg/kg	02.12.18 12.11	U	1
m,p-Xylenes	179601-23-1	<0.00702	0.00702	mg/kg	02.12.18 12.11	U	1
o-Xylene	95-47-6	<0.00351	0.00351	mg/kg	02.12.18 12.11	U	1
Total Xylenes	1330-20-7	<0.00351	0.00351	mg/kg	02.12.18 12.11	U	1
Total BTEX		<0.00351	0.00351	mg/kg	02.12.18 12.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	80-120	02.12.18 12.11	
4-Bromofluorobenzene	460-00-4	75	%	80-120	02.12.18 12.11	**

Certificate of Analytical Results 575575

LT Environmental, Inc., Arvada, CO

ND 19 Federal SWD No. 001 RP-2663

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575575-003	Date Collected:	02.05.18 16.09	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	LRI			% Moisture:	
Analyst:	LRI	Date Prep:	02.13.18 14.10	Basis:	Wet Weight
Seq Number:	3040995				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**137**	4.94	mg/kg	02.13.18 16.51		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.10.18 11.00	Basis:	Wet Weight
Seq Number:	3040795				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.10.18 23.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	**37.7**	15.0	mg/kg	02.10.18 23.59		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.10.18 23.59	U	1
Total TPH	PHC635	**37.7**	15.0	mg/kg	02.10.18 23.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	02.10.18 23.59	
o-Terphenyl	84-15-1	92	%	70-135	02.10.18 23.59	

Certificate of Analytical Results 575575

LT Environmental, Inc., Arvada, CO

ND 19 Federal SWD No. 001 RP-2663

Sample Id:	**SS3**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575575-003	Date Collected:	02.05.18 16.09	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.07.18 14.10	Basis:	Wet Weight
Seq Number:	3040647				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	02.08.18 02.54	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	02.08.18 02.54	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	02.08.18 02.54	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	02.08.18 02.54	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	02.08.18 02.54	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	02.08.18 02.54	U	1
Total BTEX		<0.00198	0.00198	mg/kg	02.08.18 02.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	80-120	02.08.18 02.54	
4-Bromofluorobenzene	460-00-4	93	%	80-120	02.08.18 02.54	

Certificate of Analytical Results 575575

LT Environmental, Inc., Arvada, CO

ND 19 Federal SWD No. 001 RP-2663

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575575-004	Date Collected:	02.05.18 16.11	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	LRI			% Moisture:	
Analyst:	LRI	Date Prep:	02.13.18 14.10	Basis:	Wet Weight
Seq Number:	3040995				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.9**	4.97	mg/kg	02.13.18 16.58		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.10.18 11.00	Basis:	Wet Weight
Seq Number:	3040795				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	02.11.18 00.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	02.11.18 00.20	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.11.18 00.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	02.11.18 00.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	02.11.18 00.20	
o-Terphenyl	84-15-1	99	%	70-135	02.11.18 00.20	

Certificate of Analytical Results 575575

LT Environmental, Inc., Arvada, CO

ND 19 Federal SWD No. 001 RP-2663

Sample Id:	**SS4**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575575-004	Date Collected:	02.05.18 16.11	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.07.18 14.10	Basis:	Wet Weight
Seq Number:	3040647				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	02.08.18 03.13	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	02.08.18 03.13	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	02.08.18 03.13	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	02.08.18 03.13	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	02.08.18 03.13	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	02.08.18 03.13	U	1
Total BTEX		<0.00199	0.00199	mg/kg	02.08.18 03.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	87	%	80-120	02.08.18 03.13	
4-Bromofluorobenzene	460-00-4	90	%	80-120	02.08.18 03.13	

Certificate of Analytical Results 575575

LT Environmental, Inc., Arvada, CO

ND 19 Federal SWD No. 001 RP-2663

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575575-005	Date Collected:	02.05.18 16.07	Sample Depth:	6"

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	LRI			% Moisture:	
Analyst:	LRI	Date Prep:	02.13.18 14.10	Basis:	Wet Weight
Seq Number:	3040995				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**147**	4.95	mg/kg	02.13.18 17.05		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	02.10.18 11.00	Basis:	Wet Weight
Seq Number:	3040795				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	02.11.18 00.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	02.11.18 00.43	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	02.11.18 00.43	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	02.11.18 00.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	02.11.18 00.43	
o-Terphenyl	84-15-1	88	%	70-135	02.11.18 00.43	

Certificate of Analytical Results 575575

LT Environmental, Inc., Arvada, CO

ND 19 Federal SWD No. 001 RP-2663

Sample Id:	**SS5**	Matrix:	Soil	Date Received:	02.07.18 08.00
Lab Sample Id:	575575-005	Date Collected:	02.05.18 16.07	Sample Depth:	6"
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	02.08.18 08.45	Basis:	Wet Weight
Seq Number:	3040738				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00357	0.00357	mg/kg	02.12.18 12.11	U	1
Toluene	108-88-3	<0.00357	0.00357	mg/kg	02.12.18 12.11	U	1
Ethylbenzene	100-41-4	<0.00357	0.00357	mg/kg	02.12.18 12.11	U	1
m,p-Xylenes	179601-23-1	<0.00714	0.00714	mg/kg	02.12.18 12.11	U	1
o-Xylene	95-47-6	<0.00357	0.00357	mg/kg	02.12.18 12.11	U	1
Total Xylenes	1330-20-7	<0.00357	0.00357	mg/kg	02.12.18 12.11	U	1
Total BTEX		<0.00357	0.00357	mg/kg	02.12.18 12.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	64	%	80-120	02.12.18 12.11	**
1,4-Difluorobenzene	540-36-3	76	%	80-120	02.12.18 12.11	**

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

+ NELAC certification not offered for this compound.

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

QC Summary 575575

LT Environmental, Inc.

ND 19 Federal SWD No. 001 RP-2663

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3040995 — Matrix: Solid — Date Prep: 02.13.18
MB Sample Id: 7639030-1-BLK — LCS Sample Id: 7639030-1-BKS — LCSD Sample Id: 7639030-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	276	110	271	108	90-110	2	20	mg/kg	02.13.18 14:11	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3040995 — Matrix: Soil — Date Prep: 02.13.18
Parent Sample Id: 574144-009 — MS Sample Id: 574144-009 S — MSD Sample Id: 574144-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	317	250	570	101	560	97	90-110	2	20	mg/kg	02.13.18 14:32	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3040995 — Matrix: Soil — Date Prep: 02.13.18
Parent Sample Id: 575573-009 — MS Sample Id: 575573-009 S — MSD Sample Id: 575573-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	53.1	247	322	109	321	108	90-110	0	20	mg/kg	02.13.18 16:09	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3040795 — Matrix: Solid — Date Prep: 02.10.18
MB Sample Id: 7638962-1-BLK — LCS Sample Id: 7638962-1-BKS — LCSD Sample Id: 7638962-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	952	95	813	81	70-135	16	35	mg/kg	02.10.18 21:55	
Diesel Range Organics (DRO)	<15.0	1000	1090	109	929	93	70-135	16	35	mg/kg	02.10.18 21:55	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		107		94		70-135	%	02.10.18 21:55
o-Terphenyl	99		112		97		70-135	%	02.10.18 21:55

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

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]

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

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

Final 1.000

QC Summary 575575

LT Environmental, Inc.

ND 19 Federal SWD No. 001 RP-2663

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3040795 — Matrix: Soil — Date Prep: 02.10.18
Parent Sample Id: 575575-001 — MS Sample Id: 575575-001 S — MSD Sample Id: 575575-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	978	98	990	99	70-135	1	35	mg/kg	02.10.18 22:55	
Diesel Range Organics (DRO)	103	1000	1090	99	1100	100	70-135	1	35	mg/kg	02.10.18 22:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		105		70-135	%	02.10.18 22:55
o-Terphenyl	111		107		70-135	%	02.10.18 22:55

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3040647 — Matrix: Solid — Date Prep: 02.07.18
MB Sample Id: 7638867-1-BLK — LCS Sample Id: 7638867-1-BKS — LCSD Sample Id: 7638867-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0789	78	0.0706	71	70-130	11	35	mg/kg	02.07.18 23:07	
Toluene	<0.00202	0.101	0.0831	82	0.0737	74	70-130	12	35	mg/kg	02.07.18 23:07	
Ethylbenzene	<0.00202	0.101	0.0937	93	0.0851	85	71-129	10	35	mg/kg	02.07.18 23:07	
m,p-Xylenes	<0.00403	0.202	0.184	91	0.168	84	70-135	9	35	mg/kg	02.07.18 23:07	
o-Xylene	<0.00202	0.101	0.0921	91	0.0858	86	71-133	7	35	mg/kg	02.07.18 23:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		90		90		80-120	%	02.07.18 23:07
4-Bromofluorobenzene	102		102		112		80-120	%	02.07.18 23:07

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3040738 — Matrix: Solid — Date Prep: 02.08.18
MB Sample Id: 7638875-1-BLK — LCS Sample Id: 7638875-1-BKS — LCSD Sample Id: 7638875-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0821	83	0.0760	76	70-130	8	35	mg/kg	02.12.18 12:11	
Toluene	<0.00199	0.0994	0.0844	85	0.0813	81	70-130	4	35	mg/kg	02.12.18 12:11	
Ethylbenzene	<0.00199	0.0994	0.0895	90	0.0861	86	71-129	4	35	mg/kg	02.12.18 12:11	
m,p-Xylenes	<0.00398	0.199	0.174	87	0.167	84	70-135	4	35	mg/kg	02.12.18 12:11	
o-Xylene	<0.00199	0.0994	0.0884	89	0.0855	86	71-133	3	35	mg/kg	02.12.18 12:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		95		93		80-120	%	02.12.18 12:11
4-Bromofluorobenzene	98		102		99		80-120	%	02.12.18 12:11

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

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]

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

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

QC Summary 575575

LT Environmental, Inc.

ND 19 Federal SWD No. 001 RP-2663

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3040647 Matrix: Soil Date Prep: 02.07.18
Parent Sample Id: 575577-001 MS Sample Id: 575577-001 S MSD Sample Id: 575577-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0703	70	0.0632	63	70-130	11	35	mg/kg	02.07.18 23:45	X
Toluene	<0.00200	0.0998	0.0700	70	0.0624	62	70-130	11	35	mg/kg	02.07.18 23:45	X
Ethylbenzene	<0.00200	0.0998	0.0719	72	0.0618	62	71-129	15	35	mg/kg	02.07.18 23:45	X
m,p-Xylenes	<0.00399	0.200	0.139	70	0.119	59	70-135	16	35	mg/kg	02.07.18 23:45	X
o-Xylene	<0.00200	0.0998	0.0724	73	0.0629	63	71-133	14	35	mg/kg	02.07.18 23:45	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		87		80-120	%	02.07.18 23:45
4-Bromofluorobenzene	106		99		80-120	%	02.07.18 23:45

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3040738 Matrix: Soil Date Prep: 02.08.18
Parent Sample Id: 575578-002 MS Sample Id: 575578-002 S MSD Sample Id: 575578-002 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	0.103	102	0.125	125	70-130	19	35	mg/kg	02.12.18 12:11	
Toluene	<0.00202	0.101	0.0648	64	0.0677	68	70-130	4	35	mg/kg	02.12.18 12:11	X
Ethylbenzene	<0.00202	0.101	0.0603	60	0.0673	67	71-129	11	35	mg/kg	02.12.18 12:11	X
m,p-Xylenes	<0.00404	0.202	0.117	58	0.131	65	70-135	11	35	mg/kg	02.12.18 12:11	X
o-Xylene	<0.00202	0.101	0.0605	60	0.0674	67	71-133	11	35	mg/kg	02.12.18 12:11	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		96		80-120	%	02.12.18 12:11
4-Bromofluorobenzene	106		100		80-120	%	02.12.18 12:11

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

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]

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

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

CHAIN OF CUSTODY

Page 1 Of 1

Revision 2016.1

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Service Center- Hobbs, NM (575) 392-7550
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Xenco Quote #

Xenco Job # 575575

Client / Reporting Information

Company Name / Branch: LTE

Company Address: 3300 North A Street Bldg 1 #103

Email: abaker@ltenv.com Phone No: 432-894-5641

Project Contact: Adrian Baker

Samplers's Name: Adrian Baker

Project Information

Project Name/Number: ND 19 Federal SWD No. 001 RP-2663

Project Location: Carlsbad, NM

Invoice To: XTO Energy, Kyle Littrell

PO Number: 30-015-39713

Analytical Information

BTEX Method 8021 | TPH Method 8015 GRO DRO MRO | Chloride 300.1

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX	TPH	Chloride	Field Comments
1	SS1	surface	2/5	404	S	1									X	X	X	
2	SS2	6"	↓	415	↑	↓									X	X	X	
3	SS3	6"		409											X	X	X	
4	SS4	6"		411											X	X	X	
5	SS5	6"		407											X	X	X	
6																		
7																		
8																		
9																		
10																		

NFE ANB

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☐ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY Std turn
- TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ Level II Report with TRRP checklist

Notes:

Temp: 4 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 3.8

FED-Ex / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		2/6/18 615		2	2/7/18 8:00 am	2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: X	Cooler Temp.	Thermo. Corr. Factor
			5		☐			

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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 02/07/2018 08:00:00 AM

Work Order #: 575575

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.8
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Connie Hernandez Date: 02/07/2018

Connie Hernandez

Checklist reviewed by: Jessica Kramer Date: 02/07/2018

Jessica Kramer

Analytical Report 598445

for

LT Environmental, Inc.

Project Manager: Adrian Baker

ND 19 Federal

13-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

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

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

13-SEP-18

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

Reference: XENCO Report No(s): **598445**
ND 19 Federal
Project Address: Cralsbad, NM

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 598445. 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. 598445 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

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

Sample Cross Reference 598445

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	09-05-18 10:40	2 ft	598445-001
FS01	S	09-05-18 11:20	4 ft	598445-002
SW02	S	09-05-18 13:10	2 ft	598445-003
SW03	S	09-05-18 14:40	2 ft	598445-004

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: ND 19 Federal

Project ID:
Work Order Number(s): *598445*

Report Date: *13-SEP-18*
Date Received: *09/08/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3062709 BTEX by EPA 8021B

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

Certificate of Analysis Summary 598445

LT Environmental, Inc., Arvada, CO

Project Name: ND 19 Federal

Project Id:
Contact: Adrian Baker
Project Location: Cralsbad, NM

Date Received in Lab: Sat Sep-08-18 08:00 am
Report Date: 13-SEP-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	598445-001		598445-002		598445-003		598445-004					
	Field Id:	SW01		FS01		SW02		SW03					
	Depth:	2- ft		4- ft		2- ft		2- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Sep-05-18 10:40		Sep-05-18 11:20		Sep-05-18 13:10		Sep-05-18 14:40					
BTEX by EPA 8021B	***Extracted:***	Sep-10-18 10:00		Sep-10-18 10:00		Sep-10-18 10:00		Sep-10-18 10:00					
	Analyzed:	Sep-10-18 18:20		Sep-10-18 18:41		Sep-10-18 19:02		Sep-10-18 19:23					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
m,p-Xylenes		<0.00398	0.00398	<0.00401	0.00401	<0.00402	0.00402	<0.00398	0.00398				
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
Total Xylenes		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
Total BTEX		<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199				
Inorganic Anions by EPA 300	***Extracted:***	Sep-11-18 14:00		Sep-11-18 14:00		Sep-11-18 14:00		Sep-11-18 14:00					
	Analyzed:	Sep-11-18 17:13		Sep-11-18 17:20		Sep-11-18 17:26		Sep-11-18 17:32					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		172	5.00	212	5.00	12.7	5.02	70.3	5.00				
TPH by SW8015 Mod	***Extracted:***	Sep-11-18 12:00		Sep-11-18 12:00		Sep-11-18 12:00		Sep-11-18 12:00					
	Analyzed:	Sep-11-18 14:57		Sep-11-18 15:16		Sep-11-18 15:35		Sep-11-18 15:53					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0				
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0				
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0				

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

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 598445

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	09.08.18 08.00
Lab Sample Id:	598445-001	Date Collected:	09.05.18 10.40	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.11.18 14.00	Basis:	Wet Weight
Seq Number:	3062839				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**172**	5.00	mg/kg	09.11.18 17.13		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.11.18 12.00	Basis:	Wet Weight
Seq Number:	3062894				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.11.18 14.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.11.18 14.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.11.18 14.57	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.11.18 14.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	09.11.18 14.57	
o-Terphenyl	84-15-1	94	%	70-135	09.11.18 14.57	

Certificate of Analytical Results 598445

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	09.08.18 08.00
Lab Sample Id:	598445-001	Date Collected:	09.05.18 10.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.10.18 10.00	Basis:	Wet Weight
Seq Number:	3062709				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.10.18 18.20	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.10.18 18.20	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.10.18 18.20	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.10.18 18.20	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.10.18 18.20	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.10.18 18.20	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.10.18 18.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	09.10.18 18.20	
1,4-Difluorobenzene	540-36-3	117	%	70-130	09.10.18 18.20	

Certificate of Analytical Results 598445

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	09.08.18 08.00
Lab Sample Id:	598445-002	Date Collected:	09.05.18 11.20	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.11.18 14.00	Basis:	Wet Weight
Seq Number:	3062839				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**212**	5.00	mg/kg	09.11.18 17.20		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.11.18 12.00	Basis:	Wet Weight
Seq Number:	3062894				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.11.18 15.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.11.18 15.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.11.18 15.16	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.11.18 15.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	09.11.18 15.16	
o-Terphenyl	84-15-1	98	%	70-135	09.11.18 15.16	

Certificate of Analytical Results 598445

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	09.08.18 08.00
Lab Sample Id:	598445-002	Date Collected:	09.05.18 11.20	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.10.18 10.00	Basis:	Wet Weight
Seq Number:	3062709				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.10.18 18.41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.10.18 18.41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.10.18 18.41	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.10.18 18.41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.10.18 18.41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.10.18 18.41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.10.18 18.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	120	%	70-130	09.10.18 18.41	
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.10.18 18.41	

Certificate of Analytical Results 598445

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	09.08.18 08.00
Lab Sample Id:	598445-003	Date Collected:	09.05.18 13.10	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.11.18 14.00	Basis:	Wet Weight
Seq Number:	3062839				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.7**	5.02	mg/kg	09.11.18 17.26		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.11.18 12.00	Basis:	Wet Weight
Seq Number:	3062894				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.11.18 15.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.11.18 15.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.11.18 15.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.11.18 15.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	09.11.18 15.35	
o-Terphenyl	84-15-1	96	%	70-135	09.11.18 15.35	

Certificate of Analytical Results 598445

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	09.08.18 08.00
Lab Sample Id:	598445-003	Date Collected:	09.05.18 13.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.10.18 10.00	Basis:	Wet Weight
Seq Number:	3062709				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.10.18 19.02	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.10.18 19.02	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.10.18 19.02	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.10.18 19.02	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.10.18 19.02	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.10.18 19.02	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.10.18 19.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	126	%	70-130	09.10.18 19.02	
4-Bromofluorobenzene	460-00-4	90	%	70-130	09.10.18 19.02	

Certificate of Analytical Results 598445

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	09.08.18 08.00
Lab Sample Id:	598445-004	Date Collected:	09.05.18 14.40	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.11.18 14.00	Basis:	Wet Weight
Seq Number:	3062839				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**70.3**	5.00	mg/kg	09.11.18 17.32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.11.18 12.00	Basis:	Wet Weight
Seq Number:	3062894				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.11.18 15.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.11.18 15.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.11.18 15.53	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.11.18 15.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	09.11.18 15.53	
o-Terphenyl	84-15-1	99	%	70-135	09.11.18 15.53	

Certificate of Analytical Results 598445

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	09.08.18 08.00
Lab Sample Id:	598445-004	Date Collected:	09.05.18 14.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.10.18 10.00	Basis:	Wet Weight
Seq Number:	3062709				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.10.18 19.23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.10.18 19.23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.10.18 19.23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.10.18 19.23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.10.18 19.23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.10.18 19.23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.10.18 19.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	09.10.18 19.23	
1,4-Difluorobenzene	540-36-3	119	%	70-130	09.10.18 19.23	

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 598445

LT Environmental, Inc.

ND 19 Federal

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3062839 — Matrix: Solid — Date Prep: 09.11.18
MB Sample Id: 7662040-1-BLK — LCS Sample Id: 7662040-1-BKS — LCSD Sample Id: 7662040-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	260	104	258	103	90-110	1	20	mg/kg	09.11.18 16:43	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3062839 — Matrix: Soil — Date Prep: 09.11.18
Parent Sample Id: 598439-006 — MS Sample Id: 598439-006 S — MSD Sample Id: 598439-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4.28	294	303	102	302	101	90-110	0	20	mg/kg	09.11.18 18:28	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3062839 — Matrix: Soil — Date Prep: 09.11.18
Parent Sample Id: 598441-010 — MS Sample Id: 598441-010 S — MSD Sample Id: 598441-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.912	266	262	98	262	98	90-110	0	20	mg/kg	09.11.18 17:01	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3062894 — Matrix: Solid — Date Prep: 09.11.18
MB Sample Id: 7662103-1-BLK — LCS Sample Id: 7662103-1-BKS — LCSD Sample Id: 7662103-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1040	104	1050	105	70-135	1	20	mg/kg	09.11.18 13:05	
Diesel Range Organics (DRO)	<8.13	1000	1070	107	1140	114	70-135	6	20	mg/kg	09.11.18 13:05	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		123		126		70-135	%	09.11.18 13:05
o-Terphenyl	97		114		114		70-135	%	09.11.18 13:05

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 598445

LT Environmental, Inc.

ND 19 Federal

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3062894 — Matrix: Soil — Date Prep: 09.11.18
Parent Sample Id: 598400-001 — MS Sample Id: 598400-001 S — MSD Sample Id: 598400-001 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)	9.10	1040	993	95	1010	96	70-135	2	20	mg/kg	09.11.18 14:01	
Diesel Range Organics (DRO)	8.72	1040	1060	101	1080	103	70-135	2	20	mg/kg	09.11.18 14:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		113		70-135	%	09.11.18 14:01
o-Terphenyl	96		96		70-135	%	09.11.18 14:01

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3062709 — Matrix: Solid — Date Prep: 09.10.18
MB Sample Id: 7662011-1-BLK — LCS Sample Id: 7662011-1-BKS — LCSD Sample Id: 7662011-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.123	123	0.105	105	70-130	16	35	mg/kg	09.10.18 10:35	
Toluene	<0.00200	0.0998	0.0859	86	0.0722	72	70-130	17	35	mg/kg	09.10.18 10:35	
Ethylbenzene	<0.00200	0.0998	0.0990	99	0.0818	82	70-130	19	35	mg/kg	09.10.18 10:35	
m,p-Xylenes	<0.00101	0.200	0.197	99	0.163	81	70-130	19	35	mg/kg	09.10.18 10:35	
o-Xylene	<0.00200	0.0998	0.0947	95	0.0782	78	70-130	19	35	mg/kg	09.10.18 10:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	117		88		89		70-130	%	09.10.18 10:35
4-Bromofluorobenzene	82		92		78		70-130	%	09.10.18 10:35

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3062709 — Matrix: Soil — Date Prep: 09.10.18
Parent Sample Id: 598443-001 — MS Sample Id: 598443-001 S — MSD Sample Id: 598443-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.101	101	0.103	103	70-130	2	35	mg/kg	09.10.18 11:17	
Toluene	<0.00199	0.0996	0.0712	71	0.0702	70	70-130	1	35	mg/kg	09.10.18 11:17	
Ethylbenzene	<0.00199	0.0996	0.0801	80	0.0803	80	70-130	0	35	mg/kg	09.10.18 11:17	
m,p-Xylenes	<0.00101	0.199	0.159	80	0.158	79	70-130	1	35	mg/kg	09.10.18 11:17	
o-Xylene	<0.00199	0.0996	0.0777	78	0.0764	76	70-130	2	35	mg/kg	09.10.18 11:17	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		103		70-130	%	09.10.18 11:17
4-Bromofluorobenzene	87		95		70-130	%	09.10.18 11:17

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

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

CHAIN OF CUSTODY

Page 1 Of 1

San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)
www.xenco.com
Phoenix, Arizona (480-355-0900)

Xenco Quote #
Xenco Job # 598445

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office
Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705
Email: Abaker@ltenv.com
Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name: Ben Belill

Project Information

Project Name/Number: ND 19 Federal
Project Location: Carlsbad, NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-2663

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX EPA 8020	TPH EPA 8015	Chloride 300.1	Field Comments
1	SW01	2'	9/5/18	1040	S	1								X	X	X	X	
2	FS01	4'	↓	1120	↓	↓								X	X	X	X	
3	SW02	2'	↓	1310	↓	↓								X	X	X	X	
4	SW03	2'	↓	1440	↓	↓								X	X	X	X	
5																		
6																		
7																		
8			BB. 9/5/18															
9																		
10																		

Turnaround Time (Business days)

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by	Date Time	Received By	Relinquished By	Date Time	Received By
1 Relinquished by Sampler: B.J. Be	9/7/18 @ 1025	1 Timothy P. Elliott	2 [signature]	9/7/18 15:30	2 [signature] 0800 9/8
3 Relinquished by:	Date Time:	3 Received By:	4 Relinquished By:	Date Time:	4 Received By:
5 Relinquished by:	Date Time:	5 Received By:	Custody Seal #	Preserved where applicable	On Ice: X; Cooler Temp: 0.2; Thermo. Corr. Factor: R8 0.0

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

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

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09/08/2018 08:00:00 AM

Work Order #: 598445

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

Temperature Measuring device used : R8

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 09/10/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 09/10/2018

Jessica Kramer

Analytical Report 598787

for

LT Environmental, Inc.

Project Manager: Adrian Baker

ND 19 Federal

012918040

13-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

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

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

13-SEP-18

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

Reference: XENCO Report No(s): **598787**
ND 19 Federal
Project Address: Carlsbad NM

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 598787. 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. 598787 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 598787

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW04	S	09-10-18 14:25	2 ft	598787-001
FS02	S	09-10-18 14:30	4 ft	598787-002

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: ND 19 Federal

Project ID: *012918040*
Work Order Number(s): *598787*

Report Date: *13-SEP-18*
Date Received: *09/12/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3063031 BTEX by EPA 8021B

Lab Sample ID 598787-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). m,p-Xylenes recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 598787-001, -002.

The Laboratory Control Sample for m,p-Xylenes is within laboratory Control Limits, therefore the data was accepted.

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

Certificate of Analysis Summary 598787

LT Environmental, Inc., Arvada, CO

Project Name: ND 19 Federal

Project Id: 012918040
Contact: Adrian Baker
Project Location: Carlsbad NM

Date Received in Lab: Wed Sep-12-18 12:00 pm
Report Date: 13-SEP-18
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	598787-001		598787-002					
	Field Id:	SW04		FS02					
	Depth:	2- ft		4- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Sep-10-18 14:25		Sep-10-18 14:30					
BTEX by EPA 8021B	***Extracted:***	Sep-12-18 15:00		Sep-12-18 15:00					
	Analyzed:	Sep-12-18 22:16		Sep-12-18 22:36					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00199	0.00199	<0.00199	0.00199				
Toluene		<0.00199	0.00199	<0.00199	0.00199				
Ethylbenzene		<0.00199	0.00199	<0.00199	0.00199				
m,p-Xylenes		<0.00398	0.00398	<0.00398	0.00398				
o-Xylene		<0.00199	0.00199	<0.00199	0.00199				
Total Xylenes		<0.00199	0.00199	<0.00199	0.00199				
Total BTEX		<0.00199	0.00199	<0.00199	0.00199				
Inorganic Anions by EPA 300	***Extracted:***	Sep-13-18 10:00		Sep-13-18 10:00					
	Analyzed:	Sep-13-18 17:52		Sep-13-18 17:59					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		416	4.95	149	5.00				
TPH by SW8015 Mod	***Extracted:***	Sep-13-18 10:33		Sep-13-18 10:33					
	Analyzed:	** ** ** **		** ** ** **					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<14.9	14.9				
Diesel Range Organics (DRO)		<15.0	15.0	<14.9	14.9				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<14.9	14.9				
Total TPH		<15.0	15.0	<14.9	14.9				

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 598787

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	09.12.18 12.00
Lab Sample Id:	598787-001	Date Collected:	09.10.18 14.25	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.13.18 10.00	Basis:	Wet Weight
Seq Number:	3063122				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**416**	4.95	mg/kg	09.13.18 17.52		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.13.18 10.33	Basis:	Wet Weight
Seq Number:	3063073				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.12.18 22.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.12.18 22.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.12.18 22.25	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.12.18 22.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	09.12.18 22.25	
o-Terphenyl	84-15-1	100	%	70-135	09.12.18 22.25	

Certificate of Analytical Results 598787

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW04**	Matrix:	Soil	Date Received:	09.12.18 12.00
Lab Sample Id:	598787-001	Date Collected:	09.10.18 14.25	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.12.18 15.00	Basis:	Wet Weight
Seq Number:	3063031				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.12.18 22.16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.12.18 22.16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.12.18 22.16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.12.18 22.16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.12.18 22.16	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.12.18 22.16	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.12.18 22.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	84	%	70-130	09.12.18 22.16	
1,4-Difluorobenzene	540-36-3	106	%	70-130	09.12.18 22.16	

Certificate of Analytical Results 598787

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	09.12.18 12.00
Lab Sample Id:	598787-002	Date Collected:	09.10.18 14.30	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.13.18 10.00	Basis:	Wet Weight
Seq Number:	3063122				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**149**	5.00	mg/kg	09.13.18 17.59		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.13.18 10.33	Basis:	Wet Weight
Seq Number:	3063073				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	09.12.18 22.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	09.12.18 22.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	09.12.18 22.44	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	09.12.18 22.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	09.12.18 22.44	
o-Terphenyl	84-15-1	99	%	70-135	09.12.18 22.44	

Certificate of Analytical Results 598787

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	09.12.18 12.00
Lab Sample Id:	598787-002	Date Collected:	09.10.18 14.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.12.18 15.00	Basis:	Wet Weight
Seq Number:	3063031				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.12.18 22.36	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.12.18 22.36	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.12.18 22.36	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.12.18 22.36	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.12.18 22.36	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.12.18 22.36	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.12.18 22.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	09.12.18 22.36	
1,4-Difluorobenzene	540-36-3	104	%	70-130	09.12.18 22.36	

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 598787

LT Environmental, Inc.

ND 19 Federal

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3063122 — Matrix: Solid — Date Prep: 09.13.18
MB Sample Id: 7662237-1-BLK — LCS Sample Id: 7662237-1-BKS — LCSD Sample Id: 7662237-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	269	108	267	107	90-110	1	20	mg/kg	09.13.18 16:49	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3063122 — Matrix: Soil — Date Prep: 09.13.18
Parent Sample Id: 598786-003 — MS Sample Id: 598786-003 S — MSD Sample Id: 598786-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	28.2	249	266	96	266	96	90-110	0	20	mg/kg	09.13.18 17:22	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3063073 — Matrix: Solid — Date Prep: 09.13.18
MB Sample Id: 7662165-1-BLK — LCS Sample Id: 7662165-1-BKS — LCSD Sample Id: 7662165-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	893	89	893	89	70-135	0	20	mg/kg	09.12.18 19:04	
Diesel Range Organics (DRO)	<8.13	1000	990	99	1000	100	70-135	1	20	mg/kg	09.12.18 19:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		128		122		70-135	%	09.12.18 19:04
o-Terphenyl	101		127		118		70-135	%	09.12.18 19:04

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3063073 — Matrix: Soil — Date Prep: 09.13.18
Parent Sample Id: 598783-001 — MS Sample Id: 598783-001 S — MSD Sample Id: 598783-001 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)	<7.99	999	973	97	999	100	70-135	3	20	mg/kg	09.12.18 19:59	
Diesel Range Organics (DRO)	<8.12	999	1050	105	1070	107	70-135	2	20	mg/kg	09.12.18 19:59	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		124		70-135	%	09.12.18 19:59
o-Terphenyl	123		123		70-135	%	09.12.18 19:59

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 598787

LT Environmental, Inc.

ND 19 Federal

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3063031 Matrix: Solid Date Prep: 09.12.18
MB Sample Id: 7662193-1-BLK LCS Sample Id: 7662193-1-BKS LCSD Sample Id: 7662193-1-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	0.0963	96	0.0952	95	70-130	1	35	mg/kg	09.12.18 20:08	
Toluene	<0.00200	0.100	0.0886	89	0.0873	87	70-130	1	35	mg/kg	09.12.18 20:08	
Ethylbenzene	<0.00200	0.100	0.0941	94	0.0947	95	70-130	1	35	mg/kg	09.12.18 20:08	
m,p-Xylenes	<0.00400	0.200	0.191	96	0.189	94	70-130	1	35	mg/kg	09.12.18 20:08	
o-Xylene	<0.00200	0.100	0.0934	93	0.0940	94	70-130	1	35	mg/kg	09.12.18 20:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		106		102		70-130	%	09.12.18 20:08
4-Bromofluorobenzene	80		99		101		70-130	%	09.12.18 20:08

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3063031 Matrix: Soil Date Prep: 09.12.18
Parent Sample Id: 598787-001 MS Sample Id: 598787-001 S MSD Sample Id: 598787-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0892	90	0.0815	82	70-130	9	35	mg/kg	09.12.18 20:51	
Toluene	<0.00199	0.0996	0.0769	77	0.0703	70	70-130	9	35	mg/kg	09.12.18 20:51	
Ethylbenzene	<0.00199	0.0996	0.0735	74	0.0699	70	70-130	5	35	mg/kg	09.12.18 20:51	
m,p-Xylenes	<0.00398	0.199	0.141	71	0.133	67	70-130	6	35	mg/kg	09.12.18 20:51	X
o-Xylene	<0.00199	0.0996	0.0726	73	0.0700	70	70-130	4	35	mg/kg	09.12.18 20:51	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		100		70-130	%	09.12.18 20:51
4-Bromofluorobenzene	106		86		70-130	%	09.12.18 20:51

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

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Phoenix, Arizona (480-355-0900)
www.xenco.com

CHAIN OF CUSTODY

Page 1 of 1

Xenco Quote #

Xenco Job # 598787

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office
Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705
Email: Abaker@ltenv.com
Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name: Ben Belin

Project Information

Project Name/Number: 01291804O/ND 19 Federal
Project Location: Carlsbad, NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-2663

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX EPA 8020	TPH EPA 8015	Chlorides 300.1	Field Comments
1	SW04	2'	9/9/18	1425	S	1								X	X	X	X	
2	FS02	4'	↓	1430	S	1								X	X	X	X	
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

9/10/18

BB

Turnaround Time (Business days)

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By	Date Time:	Received By:
1	B.T.Belin	09/11/2018 14:02	Jamie Wilson	2 Jamie Wilson	9/11/18 15:30	2 Nathaniel Gomez 9.12.18 12:00
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: X

Cooler Temp. 2.4 R8 — Thermo. Corr. Factor 0.0

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

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

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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09/12/2018 12:00:00 PM

Work Order #: 598787

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.4
#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: Shawnee Gomez Date: 09/12/2018

Shawnee Gomez

Checklist reviewed by: Jessica Kramer Date: 09/12/2018

Jessica Kramer

Analytical Report 599236

for

LT Environmental, Inc.

Project Manager: Adrian Baker

ND 19 Federal

21-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

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

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

21-SEP-18

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

Reference: XENCO Report No(s): **599236**
ND 19 Federal
Project Address: Carlsbad, NM

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 599236. 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. 599236 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

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Sample Cross Reference 599236

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW05	S	09-11-18 09:25	2 ft	599236-001
SW06	S	09-11-18 12:30	2 ft	599236-002

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: ND 19 Federal

Project ID:
Work Order Number(s): *599236*

Report Date: *21-SEP-18*
Date Received: *09/15/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3063623 BTEX by EPA 8021B

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

Certificate of Analysis Summary 599236

LT Environmental, Inc., Arvada, CO

Project Name: ND 19 Federal

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Sat Sep-15-18 09:00 am
Report Date: 21-SEP-18
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	599236-001		599236-002					
	Field Id:	SW05		SW06					
	Depth:	2- ft		2- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Sep-11-18 09:25		Sep-11-18 12:30					
BTEX by EPA 8021B	***Extracted:***	Sep-18-18 08:00		Sep-18-18 08:00					
	Analyzed:	Sep-18-18 12:09		Sep-18-18 12:30					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00201	0.00201				
Toluene		<0.00200	0.00200	<0.00201	0.00201				
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201				
m,p-Xylenes		<0.00401	0.00401	<0.00402	0.00402				
o-Xylene		<0.00200	0.00200	<0.00201	0.00201				
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201				
Total BTEX		<0.00200	0.00200	<0.00201	0.00201				
Inorganic Anions by EPA 300	***Extracted:***	Sep-20-18 09:00		Sep-20-18 09:00					
	Analyzed:	Sep-20-18 11:54		Sep-20-18 11:20					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		16.0	4.99	132	4.98				
TPH by SW8015 Mod	***Extracted:***	Sep-17-18 13:00		Sep-17-18 13:00					
	Analyzed:	Sep-17-18 22:22		Sep-17-18 22:41					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0				
Diesel Range Organics (DRO)		17.1	15.0	17.8	15.0				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0				
Total TPH		17.1	15.0	17.8	15.0				

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

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 599236

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599236-001	Date Collected:	09.11.18 09.25	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.20.18 09.00	Basis:	Wet Weight
Seq Number:	3063936				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.0**	4.99	mg/kg	09.20.18 11.54		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 13.00	Basis:	Wet Weight
Seq Number:	3063513				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.17.18 22.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	**17.1**	15.0	mg/kg	09.17.18 22.22		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.17.18 22.22	U	1
Total TPH	PHC635	**17.1**	15.0	mg/kg	09.17.18 22.22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.17.18 22.22	
o-Terphenyl	84-15-1	99	%	70-135	09.17.18 22.22	

Certificate of Analytical Results 599236

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW05**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599236-001	Date Collected:	09.11.18 09.25	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.18.18 08.00	Basis:	Wet Weight
Seq Number:	3063623				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.18.18 12.09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.18.18 12.09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.18.18 12.09	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.18.18 12.09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.18.18 12.09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.18.18 12.09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.18.18 12.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	81	%	70-130	09.18.18 12.09	
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.18.18 12.09	

Certificate of Analytical Results 599236

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599236-002	Date Collected:	09.11.18 12.30	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.20.18 09.00	Basis:	Wet Weight
Seq Number:	3063936				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**132**	4.98	mg/kg	09.20.18 11.20		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 13.00	Basis:	Wet Weight
Seq Number:	3063513				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.17.18 22.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	**17.8**	15.0	mg/kg	09.17.18 22.41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.17.18 22.41	U	1
Total TPH	PHC635	**17.8**	15.0	mg/kg	09.17.18 22.41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.17.18 22.41	
o-Terphenyl	84-15-1	99	%	70-135	09.17.18 22.41	

Certificate of Analytical Results 599236

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW06**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599236-002	Date Collected:	09.11.18 12.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.18.18 08.00	Basis:	Wet Weight
Seq Number:	3063623				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.18.18 12.30	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.18.18 12.30	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.18.18 12.30	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.18.18 12.30	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.18.18 12.30	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.18.18 12.30	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.18.18 12.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	09.18.18 12.30	
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.18.18 12.30	

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 599236

LT Environmental, Inc.

ND 19 Federal

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3063936 — Matrix: Solid — Date Prep: 09.20.18
MB Sample Id: 7662680-1-BLK — LCS Sample Id: 7662680-1-BKS — LCSD Sample Id: 7662680-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	252	101	251	100	90-110	0	20	mg/kg	09.20.18 11:09	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3063936 — Matrix: Soil — Date Prep: 09.20.18
Parent Sample Id: 599233-003 — MS Sample Id: 599233-003 S — MSD Sample Id: 599233-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.7	248	283	103	283	103	90-110	0	20	mg/kg	09.20.18 12:45	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3063936 — Matrix: Soil — Date Prep: 09.20.18
Parent Sample Id: 599236-002 — MS Sample Id: 599236-002 S — MSD Sample Id: 599236-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	132	249	382	100	383	101	90-110	0	20	mg/kg	09.20.18 11:26	

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3063513 — Matrix: Solid — Date Prep: 09.17.18
MB Sample Id: 7662480-1-BLK — LCS Sample Id: 7662480-1-BKS — LCSD Sample Id: 7662480-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1010	101	1020	102	70-135	1	20	mg/kg	09.17.18 14:33	
Diesel Range Organics (DRO)	<8.13	1000	1020	102	1050	105	70-135	3	20	mg/kg	09.17.18 14:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		125		124		70-135	%	09.17.18 14:33
o-Terphenyl	114		123		112		70-135	%	09.17.18 14:33

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 599236

LT Environmental, Inc.

ND 19 Federal

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3063513 — Matrix: Soil — Date Prep: 09.17.18
Parent Sample Id: 599230-001 — MS Sample Id: 599230-001 S — MSD Sample Id: 599230-001 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)	<7.99	999	962	96	966	97	70-135	0	20	mg/kg	09.17.18 16:47	
Diesel Range Organics (DRO)	13.4	999	1040	103	1050	104	70-135	1	20	mg/kg	09.17.18 16:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		129		70-135	%	09.17.18 16:47
o-Terphenyl	120		120		70-135	%	09.17.18 16:47

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3063623 — Matrix: Solid — Date Prep: 09.18.18
MB Sample Id: 7662561-1-BLK — LCS Sample Id: 7662561-1-BKS — LCSD Sample Id: 7662561-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0931	93	0.0896	90	70-130	4	35	mg/kg	09.18.18 08:38	
Toluene	<0.00200	0.0998	0.0939	94	0.0882	88	70-130	6	35	mg/kg	09.18.18 08:38	
Ethylbenzene	<0.00200	0.0998	0.101	101	0.0948	95	70-130	6	35	mg/kg	09.18.18 08:38	
m,p-Xylenes	<0.00399	0.200	0.192	96	0.180	90	70-130	6	35	mg/kg	09.18.18 08:38	
o-Xylene	<0.00200	0.0998	0.0994	100	0.0942	94	70-130	5	35	mg/kg	09.18.18 08:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		100		100		70-130	%	09.18.18 08:38
4-Bromofluorobenzene	99		94		93		70-130	%	09.18.18 08:38

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3063623 — Matrix: Soil — Date Prep: 09.18.18
Parent Sample Id: 598983-013 — MS Sample Id: 598983-013 S — MSD Sample Id: 598983-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0740	73	0.0850	85	70-130	14	35	mg/kg	09.18.18 09:20	
Toluene	<0.00201	0.101	0.0747	74	0.0841	84	70-130	12	35	mg/kg	09.18.18 09:20	
Ethylbenzene	<0.00201	0.101	0.0802	79	0.0893	89	70-130	11	35	mg/kg	09.18.18 09:20	
m,p-Xylenes	<0.00402	0.201	0.152	76	0.170	85	70-130	11	35	mg/kg	09.18.18 09:20	
o-Xylene	<0.00201	0.101	0.0798	79	0.0874	87	70-130	9	35	mg/kg	09.18.18 09:20	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		98		70-130	%	09.18.18 09:20
4-Bromofluorobenzene	94		99		70-130	%	09.18.18 09:20

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

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Phoenix, Arizona (480-355-0900)
www.xenco.com

CHAIN OF CUSTODY

Page 1 Of 1

Xenco Quote #

Xenco Job # 599236

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office
Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705
Email: Abaker@ltenv.com
Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name: Bert Belitt

Project Information

Project Name/Number: ND 19 Federal
Project Location: Carlsbad, NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-2663

Analytical Information

BTEX EPA 8020
TPH EPA 8015
Chloride 300.1

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	SW05	2'	9/11/18	0925	S	1								X	
2	SW06	2'	↓	1230	S	1								X	
3															
4															
5															
6			9/14/18	BB											
7															
8															
9															
10															

Turnaround Time (Business days)

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	B.T. Belitt	9/13/18 @ 17:22				
2					9/14/18 15:30	9/14/18
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp / Thermo. Corr. Factor
						0.2 / 0.0

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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09/15/2018 09:00:00 AM

Work Order #: 599236

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

Temperature Measuring device used : R8

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 09/17/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 09/17/2018

Jessica Kramer

Analytical Report 599237

for

LT Environmental, Inc.

Project Manager: Adrian Baker

ND-19 Federal

21-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

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

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

21-SEP-18

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

Reference: XENCO Report No(s): **599237**
ND-19 Federal
Project Address: Carlsbad, NM

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 599237. 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. 599237 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

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

Sample Cross Reference 599237

LT Environmental, Inc., Arvada, CO

ND-19 Federal

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW07	S	09-12-18 11:50	2 ft	599237-001
FS03	S	09-12-18 11:10	4 ft	599237-002
SW08	S	09-12-18 15:30	2 ft	599237-003

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: ND-19 Federal

Project ID:
Work Order Number(s): *599237*

Report Date: *21-SEP-18*
Date Received: *09/15/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3063623 BTEX by EPA 8021B

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

Certificate of Analysis Summary 599237

LT Environmental, Inc., Arvada, CO

Project Name: ND-19 Federal

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Sat Sep-15-18 09:00 am
Report Date: 21-SEP-18
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	599237-001		599237-002		599237-003			
	Field Id:	SW07		FS03		SW08			
	Depth:	2- ft		4- ft		2- ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Sep-12-18 11:50		Sep-12-18 11:10		Sep-12-18 15:30			
BTEX by EPA 8021B	***Extracted:***	Sep-18-18 08:00		Sep-18-18 08:00		Sep-18-18 08:00			
	Analyzed:	Sep-18-18 12:51		Sep-18-18 13:12		Sep-18-18 13:33			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00201	0.00201	<0.00198	0.00198	<0.00199	0.00199		
Toluene		<0.00201	0.00201	<0.00198	0.00198	<0.00199	0.00199		
Ethylbenzene		<0.00201	0.00201	<0.00198	0.00198	<0.00199	0.00199		
m,p-Xylenes		<0.00402	0.00402	<0.00397	0.00397	<0.00398	0.00398		
o-Xylene		<0.00201	0.00201	<0.00198	0.00198	<0.00199	0.00199		
Total Xylenes		<0.00201	0.00201	<0.00198	0.00198	<0.00199	0.00199		
Total BTEX		<0.00201	0.00201	<0.00198	0.00198	<0.00199	0.00199		
Inorganic Anions by EPA 300	***Extracted:***	Sep-20-18 09:00		Sep-20-18 09:00		Sep-20-18 09:00			
	Analyzed:	Sep-20-18 11:37		Sep-20-18 11:43		Sep-20-18 11:48			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		308	25.3	572	4.97	<4.96	4.96		
TPH by SW8015 Mod	***Extracted:***	Sep-17-18 13:00		Sep-17-18 13:00		Sep-17-18 13:00			
	Analyzed:	Sep-17-18 22:59		Sep-17-18 23:18		Sep-17-18 23:37			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0		
Diesel Range Organics (DRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0		
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<14.9	14.9	<15.0	15.0		
Total TPH		<15.0	15.0	<14.9	14.9	<15.0	15.0		

Jessica Kramer
Project Assistant

Certificate of Analytical Results 599237

LT Environmental, Inc., Arvada, CO

ND-19 Federal

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599237-001	Date Collected:	09.12.18 11.50	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.20.18 09.00	Basis:	Wet Weight
Seq Number:	3063936				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**308**	25.3	mg/kg	09.20.18 11.37		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 13.00	Basis:	Wet Weight
Seq Number:	3063513				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.17.18 22.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.17.18 22.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.17.18 22.59	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.17.18 22.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.17.18 22.59	
o-Terphenyl	84-15-1	98	%	70-135	09.17.18 22.59	

Certificate of Analytical Results 599237

LT Environmental, Inc., Arvada, CO

ND-19 Federal

Sample Id:	**SW07**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599237-001	Date Collected:	09.12.18 11.50	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.18.18 08.00	Basis:	Wet Weight
Seq Number:	3063623				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.18.18 12.51	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.18.18 12.51	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.18.18 12.51	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.18.18 12.51	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.18.18 12.51	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.18.18 12.51	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.18.18 12.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	09.18.18 12.51	
1,4-Difluorobenzene	540-36-3	115	%	70-130	09.18.18 12.51	

Certificate of Analytical Results 599237

LT Environmental, Inc., Arvada, CO

ND-19 Federal

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599237-002	Date Collected:	09.12.18 11.10	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.20.18 09.00	Basis:	Wet Weight
Seq Number:	3063936				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**572**	4.97	mg/kg	09.20.18 11.43		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 13.00	Basis:	Wet Weight
Seq Number:	3063513				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	09.17.18 23.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	09.17.18 23.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	09.17.18 23.18	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	09.17.18 23.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	09.17.18 23.18	
o-Terphenyl	84-15-1	96	%	70-135	09.17.18 23.18	

Certificate of Analytical Results 599237

LT Environmental, Inc., Arvada, CO

ND-19 Federal

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599237-002	Date Collected:	09.12.18 11.10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.18.18 08.00	Basis:	Wet Weight
Seq Number:	3063623				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.18.18 13.12	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.18.18 13.12	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.18.18 13.12	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.18.18 13.12	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.18.18 13.12	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.18.18 13.12	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.18.18 13.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	09.18.18 13.12	
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.18.18 13.12	

Certificate of Analytical Results 599237

LT Environmental, Inc., Arvada, CO

ND-19 Federal

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599237-003	Date Collected:	09.12.18 15.30	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.20.18 09.00	Basis:	Wet Weight
Seq Number:	3063936				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	09.20.18 11.48	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.17.18 13.00	Basis:	Wet Weight
Seq Number:	3063513				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.17.18 23.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.17.18 23.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.17.18 23.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.17.18 23.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.17.18 23.37	
o-Terphenyl	84-15-1	99	%	70-135	09.17.18 23.37	

Certificate of Analytical Results 599237

LT Environmental, Inc., Arvada, CO

ND-19 Federal

Sample Id:	**SW08**	Matrix:	Soil	Date Received:	09.15.18 09.00
Lab Sample Id:	599237-003	Date Collected:	09.12.18 15.30	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.18.18 08.00	Basis:	Wet Weight
Seq Number:	3063623				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.18.18 13.33	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.18.18 13.33	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.18.18 13.33	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.18.18 13.33	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.18.18 13.33	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.18.18 13.33	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.18.18 13.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	09.18.18 13.33	
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.18.18 13.33	

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 599237

LT Environmental, Inc.

ND-19 Federal

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3063936 Matrix: Solid Date Prep: 09.20.18
MB Sample Id: 7662680-1-BLK LCS Sample Id: 7662680-1-BKS LCSD Sample Id: 7662680-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	252	101	251	100	90-110	0	20	mg/kg	09.20.18 11:09	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3063936 Matrix: Soil Date Prep: 09.20.18
Parent Sample Id: 599233-003 MS Sample Id: 599233-003 S MSD Sample Id: 599233-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.7	248	283	103	283	103	90-110	0	20	mg/kg	09.20.18 12:45	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3063936 Matrix: Soil Date Prep: 09.20.18
Parent Sample Id: 599236-002 MS Sample Id: 599236-002 S MSD Sample Id: 599236-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	132	249	382	100	383	101	90-110	0	20	mg/kg	09.20.18 11:26	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3063513 Matrix: Solid Date Prep: 09.17.18
MB Sample Id: 7662480-1-BLK LCS Sample Id: 7662480-1-BKS LCSD Sample Id: 7662480-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1010	101	1020	102	70-135	1	20	mg/kg	09.17.18 14:33	
Diesel Range Organics (DRO)	<8.13	1000	1020	102	1050	105	70-135	3	20	mg/kg	09.17.18 14:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		125		124		70-135	%	09.17.18 14:33
o-Terphenyl	114		123		112		70-135	%	09.17.18 14:33

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 599237

LT Environmental, Inc.

ND-19 Federal

Analytical Method: TPH by SW8015 Mod | Prep Method: TX1005P
Seq Number: 3063513 | Matrix: Soil | Date Prep: 09.17.18
Parent Sample Id: 599230-001 | MS Sample Id: 599230-001 S | MSD Sample Id: 599230-001 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)	<7.99	999	962	96	966	97	70-135	0	20	mg/kg	09.17.18 16:47	
Diesel Range Organics (DRO)	13.4	999	1040	103	1050	104	70-135	1	20	mg/kg	09.17.18 16:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		129		70-135	%	09.17.18 16:47
o-Terphenyl	120		120		70-135	%	09.17.18 16:47

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3063623 | Matrix: Solid | Date Prep: 09.18.18
MB Sample Id: 7662561-1-BLK | LCS Sample Id: 7662561-1-BKS | LCSD Sample Id: 7662561-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0931	93	0.0896	90	70-130	4	35	mg/kg	09.18.18 08:38	
Toluene	<0.00200	0.0998	0.0939	94	0.0882	88	70-130	6	35	mg/kg	09.18.18 08:38	
Ethylbenzene	<0.00200	0.0998	0.101	101	0.0948	95	70-130	6	35	mg/kg	09.18.18 08:38	
m,p-Xylenes	<0.00399	0.200	0.192	96	0.180	90	70-130	6	35	mg/kg	09.18.18 08:38	
o-Xylene	<0.00200	0.0998	0.0994	100	0.0942	94	70-130	5	35	mg/kg	09.18.18 08:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		100		100		70-130	%	09.18.18 08:38
4-Bromofluorobenzene	99		94		93		70-130	%	09.18.18 08:38

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3063623 | Matrix: Soil | Date Prep: 09.18.18
Parent Sample Id: 598983-013 | MS Sample Id: 598983-013 S | MSD Sample Id: 598983-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0740	73	0.0850	85	70-130	14	35	mg/kg	09.18.18 09:20	
Toluene	<0.00201	0.101	0.0747	74	0.0841	84	70-130	12	35	mg/kg	09.18.18 09:20	
Ethylbenzene	<0.00201	0.101	0.0802	79	0.0893	89	70-130	11	35	mg/kg	09.18.18 09:20	
m,p-Xylenes	<0.00402	0.201	0.152	76	0.170	85	70-130	11	35	mg/kg	09.18.18 09:20	
o-Xylene	<0.00201	0.101	0.0798	79	0.0874	87	70-130	9	35	mg/kg	09.18.18 09:20	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		98		70-130	%	09.18.18 09:20
4-Bromofluorobenzene	94		99		70-130	%	09.18.18 09:20

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

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

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

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

Final 1.000

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Setting the Standard since 1990

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Phoenix, Arizona (480-355-0900)
www.xenco.com

CHAIN OF CUSTODY

Page 1 Of 1

Xenco Quote #

Xenco Job # 599237

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office
Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705
Email: Abaker@ltenv.com
Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name: Ben Belill

Project Information

Project Name/Number: ND-19 Federal
Project Location: Carlsbad, NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-2663

Analytical Information

BTEX EPA 8021
TPH EPA 8015
Chloride 300.1

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	SW07	2'	9/12/18	1100	S	1								X	
2	FS03	4'	↓	1110	↓	↓								X	
3	SW08	2'	↓	1530	↓	↓								X	
4															
5															
6															
7															
8															
9															
10															

9/12/18 BBB.

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] Next Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 3 Day EMERGENCY
- [x] 5 Day TAT
- [ ] 7 Day TAT
- [ ] Contract TAT

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level III Std QC+ Forms
- [ ] Level 3 (CLP Forms)
- [ ] TRRP Checklist
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] TRRP Level IV
- [ ] UST / RG -411

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	B.T. Belill	9/13/18 @ 17:22				
2				Cami Wilson	9/14/18 15:30	
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						9/14/18 0900
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
						0.2 / 0.0

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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09/15/2018 09:00:00 AM

Work Order #: 599237

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

Temperature Measuring device used : R8

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 09/17/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 09/17/2018

Jessica Kramer

Certificate of Analysis Summary 599387

LT Environmental, Inc., Arvada, CO

Project Name: ND 19 Federal

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Tue Sep-18-18 09:48 am
Report Date: 19-SEP-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	599387-001		599387-002		599387-003		599387-004		599387-005		599387-006	
	Field Id:	FS04		SW09		SW10		SW11		FS05		SW12	
	Depth:	4- ft		2- ft		2- ft		2- ft		4- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-14-18 10:30		Sep-14-18 10:35		Sep-14-18 10:40		Sep-14-18 15:50		Sep-14-18 15:55		Sep-14-18 16:00	
BTEX by EPA 8021B	*Extracted:*	Sep-18-18 10:00		Sep-18-18 10:00		Sep-18-18 10:00		Sep-18-18 10:00		Sep-18-18 10:00		Sep-18-18 10:00	
	Analyzed:	Sep-18-18 11:22		Sep-18-18 11:42		Sep-18-18 12:03		Sep-18-18 12:23		Sep-18-18 12:43		Sep-18-18 13:04	
	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	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200
Toluene		<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200
Ethylbenzene		<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200
m,p-Xylenes		<0.00403	0.00403	<0.00398	0.00398	<0.00397	0.00397	<0.00402	0.00402	<0.00404	0.00404	<0.00399	0.00399
o-Xylene		<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200
Total Xylenes		<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200
Total BTEX		<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00201	0.00201	<0.00202	0.00202	<0.00200	0.00200
Chloride by EPA 300	*Extracted:*	Sep-18-18 16:30		Sep-18-18 16:30		Sep-18-18 16:30		Sep-18-18 16:30		Sep-18-18 16:30		Sep-18-18 16:30	
	Analyzed:	Sep-18-18 21:51		Sep-18-18 22:08		Sep-18-18 22:14		Sep-18-18 22:19		Sep-18-18 22:25		Sep-18-18 22:42	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		379	5.00	10.4	4.96	70.0	5.00	1160	24.8	851	4.95	703	4.99
TPH By SW8015 Mod	*Extracted:*	Sep-18-18 14:00		Sep-18-18 14:00		Sep-18-18 14:00		Sep-18-18 14:00		Sep-18-18 14:00		Sep-18-18 14:00	
	Analyzed:	Sep-18-18 18:50		Sep-18-18 19:51		Sep-18-18 20:11		Sep-18-18 20:30		Sep-18-18 20:50		Sep-18-18 21:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 599387

LT Environmental, Inc., Arvada, CO

Project Name: ND 19 Federal

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Tue Sep-18-18 09:48 am
Report Date: 19-SEP-18
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	599387-007					
	Field Id:	FS06					
	Depth:	4- ft					
	Matrix:	SOIL					
	Sampled:	Sep-14-18 16:05					
BTEX by EPA 8021B	***Extracted:***	Sep-18-18 10:00					
	Analyzed:	Sep-18-18 13:24					
	Units/RL:	mg/kg	RL				
Benzene		<0.00200	0.00200				
Toluene		<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200				
m,p-Xylenes		<0.00401	0.00401				
o-Xylene		<0.00200	0.00200				
Total Xylenes		<0.00200	0.00200				
Total BTEX		<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	Sep-18-18 16:30					
	Analyzed:	Sep-18-18 22:48					
	Units/RL:	mg/kg	RL				
Chloride		1260	25.0				
TPH By SW8015 Mod	***Extracted:***	Sep-18-18 14:00					
	Analyzed:	Sep-18-18 21:30					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0				
Diesel Range Organics (DRO)		<15.0	15.0				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0				
Total TPH		<15.0	15.0				

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

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Analytical Report 599387

for

LT Environmental, Inc.

Project Manager: Adrian Baker

ND 19 Federal

19-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

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

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

19-SEP-18

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

Reference: XENCO Report No(s): **599387**
ND 19 Federal
Project Address: Carlsbad, NM

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 599387. 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. 599387 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.
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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 599387

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS04	S	09-14-18 10:30	4 ft	599387-001
SW09	S	09-14-18 10:35	2 ft	599387-002
SW10	S	09-14-18 10:40	2 ft	599387-003
SW11	S	09-14-18 15:50	2 ft	599387-004
FS05	S	09-14-18 15:55	4 ft	599387-005
SW12	S	09-14-18 16:00	2 ft	599387-006
FS06	S	09-14-18 16:05	4 ft	599387-007

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: ND 19 Federal

Project ID:
Work Order Number(s): *599387*

Report Date: *19-SEP-18*
Date Received: *09/18/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3063658 BTEX by EPA 8021B

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

Certificate of Analytical Results 599387

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	09.18.18 09.48
Lab Sample Id:	599387-001	Date Collected:	09.14.18 10.30	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.18.18 16.30	Basis:	Wet Weight
Seq Number:	3063657				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**379**	5.00	mg/kg	09.18.18 21.51		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.18.18 14.00	Basis:	Wet Weight
Seq Number:	3063754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.18.18 18.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.18.18 18.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.18.18 18.50	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.18.18 18.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	09.18.18 18.50	
o-Terphenyl	84-15-1	97	%	70-135	09.18.18 18.50	

Certificate of Analytical Results 599387

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	09.18.18 09.48
Lab Sample Id:	599387-001	Date Collected:	09.14.18 10.30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.18.18 10.00	Basis:	Wet Weight
Seq Number:	3063658				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.18.18 11.22	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.18.18 11.22	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.18.18 11.22	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.18.18 11.22	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.18.18 11.22	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.18.18 11.22	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.18.18 11.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	09.18.18 11.22	
4-Bromofluorobenzene	460-00-4	107	%	70-130	09.18.18 11.22	

Certificate of Analytical Results 599387

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	09.18.18 09.48
Lab Sample Id:	599387-002	Date Collected:	09.14.18 10.35	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.18.18 16.30	Basis:	Wet Weight
Seq Number:	3063657				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10.4**	4.96	mg/kg	09.18.18 22.08		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.18.18 14.00	Basis:	Wet Weight
Seq Number:	3063754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	09.18.18 19.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	09.18.18 19.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	09.18.18 19.51	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	09.18.18 19.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.18.18 19.51	
o-Terphenyl	84-15-1	100	%	70-135	09.18.18 19.51	

Certificate of Analytical Results 599387

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW09**	Matrix:	Soil	Date Received:	09.18.18 09.48
Lab Sample Id:	599387-002	Date Collected:	09.14.18 10.35	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.18.18 10.00	Basis:	Wet Weight
Seq Number:	3063658				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.18.18 11.42	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.18.18 11.42	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.18.18 11.42	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.18.18 11.42	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.18.18 11.42	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.18.18 11.42	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.18.18 11.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	09.18.18 11.42	
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.18.18 11.42	

Certificate of Analytical Results 599387

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	09.18.18 09.48
Lab Sample Id:	599387-003	Date Collected:	09.14.18 10.40	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.18.18 16.30	Basis:	Wet Weight
Seq Number:	3063657				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**70.0**	5.00	mg/kg	09.18.18 22.14		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.18.18 14.00	Basis:	Wet Weight
Seq Number:	3063754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	09.18.18 20.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	09.18.18 20.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	09.18.18 20.11	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	09.18.18 20.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	09.18.18 20.11	
o-Terphenyl	84-15-1	102	%	70-135	09.18.18 20.11	

Certificate of Analytical Results 599387

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW10**	Matrix:	Soil	Date Received:	09.18.18 09.48
Lab Sample Id:	599387-003	Date Collected:	09.14.18 10.40	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.18.18 10.00	Basis:	Wet Weight
Seq Number:	3063658				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.18.18 12.03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.18.18 12.03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.18.18 12.03	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.18.18 12.03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.18.18 12.03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.18.18 12.03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.18.18 12.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	09.18.18 12.03	
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.18.18 12.03	

Certificate of Analytical Results 599387

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	09.18.18 09.48
Lab Sample Id:	599387-004	Date Collected:	09.14.18 15.50	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.18.18 16.30	Basis:	Wet Weight
Seq Number:	3063657				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1160**	24.8	mg/kg	09.18.18 22.19		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.18.18 14.00	Basis:	Wet Weight
Seq Number:	3063754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.18.18 20.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.18.18 20.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.18.18 20.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.18.18 20.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	09.18.18 20.30	
o-Terphenyl	84-15-1	109	%	70-135	09.18.18 20.30	

Certificate of Analytical Results 599387

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW11**	Matrix:	Soil	Date Received:	09.18.18 09.48
Lab Sample Id:	599387-004	Date Collected:	09.14.18 15.50	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.18.18 10.00	Basis:	Wet Weight
Seq Number:	3063658				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.18.18 12.23	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.18.18 12.23	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.18.18 12.23	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.18.18 12.23	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.18.18 12.23	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.18.18 12.23	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.18.18 12.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	84	%	70-130	09.18.18 12.23	
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.18.18 12.23	

Certificate of Analytical Results 599387

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	09.18.18 09.48
Lab Sample Id:	599387-005	Date Collected:	09.14.18 15.55	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.18.18 16.30	Basis:	Wet Weight
Seq Number:	3063657				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**851**	4.95	mg/kg	09.18.18 22.25		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.18.18 14.00	Basis:	Wet Weight
Seq Number:	3063754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.18.18 20.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.18.18 20.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.18.18 20.50	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.18.18 20.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.18.18 20.50	
o-Terphenyl	84-15-1	100	%	70-135	09.18.18 20.50	

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LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	09.18.18 09.48
Lab Sample Id:	599387-005	Date Collected:	09.14.18 15.55	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.18.18 10.00	Basis:	Wet Weight
Seq Number:	3063658				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.18.18 12.43	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.18.18 12.43	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.18.18 12.43	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	09.18.18 12.43	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.18.18 12.43	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.18.18 12.43	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.18.18 12.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	09.18.18 12.43	
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.18.18 12.43	

Certificate of Analytical Results 599387

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	09.18.18 09.48
Lab Sample Id:	599387-006	Date Collected:	09.14.18 16.00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.18.18 16.30	Basis:	Wet Weight
Seq Number:	3063657				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**703**	4.99	mg/kg	09.18.18 22.42		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.18.18 14.00	Basis:	Wet Weight
Seq Number:	3063754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.18.18 21.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.18.18 21.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.18.18 21.10	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.18.18 21.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.18.18 21.10	
o-Terphenyl	84-15-1	100	%	70-135	09.18.18 21.10	

Certificate of Analytical Results 599387

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW12**	Matrix:	Soil	Date Received:	09.18.18 09.48
Lab Sample Id:	599387-006	Date Collected:	09.14.18 16.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.18.18 10.00	Basis:	Wet Weight
Seq Number:	3063658				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.18.18 13.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.18.18 13.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.18.18 13.04	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.18.18 13.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.18.18 13.04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.18.18 13.04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.18.18 13.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.18.18 13.04	
4-Bromofluorobenzene	460-00-4	118	%	70-130	09.18.18 13.04	

Certificate of Analytical Results 599387

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	09.18.18 09.48
Lab Sample Id:	599387-007	Date Collected:	09.14.18 16.05	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.18.18 16.30	Basis:	Wet Weight
Seq Number:	3063657				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1260**	25.0	mg/kg	09.18.18 22.48		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.18.18 14.00	Basis:	Wet Weight
Seq Number:	3063754				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.18.18 21.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.18.18 21.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.18.18 21.30	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.18.18 21.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	09.18.18 21.30	
o-Terphenyl	84-15-1	103	%	70-135	09.18.18 21.30	

Certificate of Analytical Results 599387

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	09.18.18 09.48
Lab Sample Id:	599387-007	Date Collected:	09.14.18 16.05	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.18.18 10.00	Basis:	Wet Weight
Seq Number:	3063658				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.18.18 13.24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.18.18 13.24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.18.18 13.24	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.18.18 13.24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.18.18 13.24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.18.18 13.24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.18.18 13.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	09.18.18 13.24	
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.18.18 13.24	

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 599387

LT Environmental, Inc.

ND 19 Federal

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3063657 — Matrix: Solid — Date Prep: 09.18.18
MB Sample Id: 7662539-1-BLK — LCS Sample Id: 7662539-1-BKS — LCSD Sample Id: 7662539-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	264	106	264	106	90-110	0	20	mg/kg	09.18.18 21:39	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3063657 — Matrix: Soil — Date Prep: 09.18.18
Parent Sample Id: 599141-035 — MS Sample Id: 599141-035 S — MSD Sample Id: 599141-035 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.935	272	278	102	279	103	90-110	0	20	mg/kg	09.18.18 23:16	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3063657 — Matrix: Soil — Date Prep: 09.18.18
Parent Sample Id: 599387-001 — MS Sample Id: 599387-001 S — MSD Sample Id: 599387-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	379	250	627	99	633	102	90-110	1	20	mg/kg	09.18.18 21:56	

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3063754 — Matrix: Solid — Date Prep: 09.18.18
MB Sample Id: 7662563-1-BLK — LCS Sample Id: 7662563-1-BKS — LCSD Sample Id: 7662563-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1020	102	960	96	70-135	6	20	mg/kg	09.18.18 18:10	
Diesel Range Organics (DRO)	<8.13	1000	1080	108	985	99	70-135	9	20	mg/kg	09.18.18 18:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		124		120		70-135	%	09.18.18 18:10
o-Terphenyl	104		114		102		70-135	%	09.18.18 18:10

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 599387

LT Environmental, Inc.

ND 19 Federal

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3063754 — Matrix: Soil — Date Prep: 09.18.18
Parent Sample Id: 599387-001 — MS Sample Id: 599387-001 S — MSD Sample Id: 599387-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	8.96	999	907	90	924	92	70-135	2	20	mg/kg	09.18.18 19:10	
Diesel Range Organics (DRO)	<8.12	999	957	96	961	96	70-135	0	20	mg/kg	09.18.18 19:10	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		125		70-135	%	09.18.18 19:10
o-Terphenyl	104		115		70-135	%	09.18.18 19:10

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3063658 — Matrix: Solid — Date Prep: 09.18.18
MB Sample Id: 7662573-1-BLK — LCS Sample Id: 7662573-1-BKS — LCSD Sample Id: 7662573-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0962	95	0.0877	87	70-130	9	35	mg/kg	09.18.18 08:41	
Toluene	<0.00201	0.101	0.0946	94	0.0938	93	70-130	1	35	mg/kg	09.18.18 08:41	
Ethylbenzene	<0.00201	0.101	0.100	99	0.0997	99	70-130	0	35	mg/kg	09.18.18 08:41	
m,p-Xylenes	<0.00402	0.201	0.194	97	0.193	96	70-130	1	35	mg/kg	09.18.18 08:41	
o-Xylene	<0.00201	0.101	0.0932	92	0.0931	92	70-130	0	35	mg/kg	09.18.18 08:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	87		95		89		70-130	%	09.18.18 08:41
4-Bromofluorobenzene	86		110		115		70-130	%	09.18.18 08:41

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3063658 — Matrix: Soil — Date Prep: 09.18.18
Parent Sample Id: 599230-003 — MS Sample Id: 599230-003 S — MSD Sample Id: 599230-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0564	57	0.0426	43	70-130	28	35	mg/kg	09.19.18 07:37	X
Toluene	<0.00199	0.0996	0.0435	44	0.0321	32	70-130	30	35	mg/kg	09.19.18 07:37	X
Ethylbenzene	<0.00199	0.0996	0.0349	35	0.0266	27	70-130	27	35	mg/kg	09.19.18 07:37	X
m,p-Xylenes	<0.00398	0.199	0.0672	34	0.0522	26	70-130	25	35	mg/kg	09.19.18 07:37	X
o-Xylene	<0.00199	0.0996	0.0330	33	0.0256	26	70-130	25	35	mg/kg	09.19.18 07:37	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		97		70-130	%	09.19.18 07:37
4-Bromofluorobenzene	111		123		70-130	%	09.19.18 07:37

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

XENCO LABORATORIES

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CHAIN OF CUSTODY

Page 1 Of 1

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

www.xenco.com

Phoenix, Arizona (480-355-0900)

Xenco Quote #
Xenco Job # 599387

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office
Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705
Email: Abaker@ltenv.com
Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name: Ben Belill

Project Information

Project Name/Number: ND 19 Federal
Project Location: Carlsbad, NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-2663

Analytical Information: BTEX EPA 8020; TPH EPA 8015; Chloride 300.1

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX EPA 8020	TPH EPA 8015	Chloride 300.1	Field Comments
1	FS04	4'	9/14/18	1030	S	1								X	X	X	X	
2	SW09	2'	↓	1035	↓	↓								X	X	X	X	
3	SW10	2'	↓	1040	↓	↓								X	X	X	X	
4	SW11	2'	↓	1550	↓	↓								X	X	X	X	
5	FS05	4'	↓	1555	↓	↓								X	X	X	X	
6	SW12	2'	↓	1600	↓	↓								X	X	X	X	
7	FS06	4'	↓	1605	↓	↓								X	X	X	X	
8																		
9	9/14/18		B.B.															
10																		

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

Turnaround Time (Business days)

- [x] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking # 782911894420

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Date Time:
1 [signature]	9/14/18@1720	1 [signature]	2 [signature]	9/17/18 15:30	2 [signature]	9/18/18 0940
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4	
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice	Cooler Temp. 1.3 Thermo. Corr. Factor R6 / 0.0

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

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

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09/18/2018 09:48:00 AM

Work Order #: 599387

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

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 09/18/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 09/18/2018
Jessica Kramer

Analytical Report 599689

for

LT Environmental, Inc.

Project Manager: Adrian Baker

ND 19 Federal

21-SEP-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

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

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

21-SEP-18

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

Reference: XENCO Report No(s): **599689**
ND 19 Federal
Project Address: Carlsbad, NM

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 599689. 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. 599689 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

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

Sample Cross Reference 599689

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW13	S	09-17-18 10:00	2 ft	599689-001
FS07	S	09-17-18 10:50	4 ft	599689-002
SW14	S	09-17-18 14:10	2 ft	599689-003
SW15	S	09-17-18 15:00	2 ft	599689-004
SW16	S	09-17-18 16:05	2 ft	599689-005
FS08	S	09-17-18 16:10	4 ft	599689-006

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: ND 19 Federal

Project ID:
Work Order Number(s): *599689*

Report Date: *21-SEP-18*
Date Received: *09/20/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3064021 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 599689-002,599689-005,599689-004,599689-003.

Batch: LBA-3064034 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 599689

LT Environmental, Inc., Arvada, CO

Project Name: ND 19 Federal

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Thu Sep-20-18 10:55 am
Report Date: 21-SEP-18
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	599689-001		599689-002		599689-003		599689-004		599689-005		599689-006	
	Field Id:	SW13		FS07		SW14		SW15		SW16		FS08	
	Depth:	2- ft		4- ft		2- ft		2- ft		2- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-17-18 10:00		Sep-17-18 10:50		Sep-17-18 14:10		Sep-17-18 15:00		Sep-17-18 16:05		Sep-17-18 16:10	
BTEX by EPA 8021B	*Extracted:*	Sep-20-18 15:00		Sep-20-18 15:00		Sep-20-18 15:00		Sep-20-18 15:00		Sep-20-18 15:00		** ** ** **	
	Analyzed:	Sep-21-18 07:50		Sep-21-18 08:10		Sep-21-18 08:30		Sep-21-18 08:51		Sep-21-18 09:11		Sep-20-18 16:11	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00397	0.00397	<0.00398	0.00398	<0.00399	0.00399	<0.00402	0.00402	<0.00398	0.00398	<0.00399	0.00399
o-Xylene		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		<0.00198	0.00198	<0.00199	0.00199	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Inorganic Anions by EPA 300	*Extracted:*	Sep-20-18 17:00		Sep-20-18 17:00		Sep-20-18 17:30		Sep-20-18 17:30		Sep-20-18 17:30		Sep-20-18 17:30	
	Analyzed:	Sep-20-18 23:52		Sep-20-18 23:58		Sep-21-18 00:49		Sep-21-18 00:55		Sep-21-18 01:01		Sep-21-18 01:06	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		355	4.98	381	5.01	143	4.96	39.3	5.00	284	4.98	229	4.99
TPH by SW8015 Mod	*Extracted:*	Sep-20-18 13:00		Sep-20-18 13:00		Sep-20-18 13:00		Sep-20-18 13:00		Sep-20-18 13:00		Sep-20-18 14:00	
	Analyzed:	Sep-20-18 19:18		Sep-20-18 19:37		Sep-20-18 19:55		Sep-20-18 20:14		Sep-20-18 20:32		Sep-20-18 21:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0
Diesel Range Organics (DRO)		<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0
Total TPH		<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0

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

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analytical Results 599689

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW13**	Matrix:	Soil	Date Received:	09.20.18 10.55
Lab Sample Id:	599689-001	Date Collected:	09.17.18 10.00	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.20.18 17.00	Basis:	Wet Weight
Seq Number:	3063959				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**355**	4.98	mg/kg	09.20.18 23.52		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.20.18 13.00	Basis:	Wet Weight
Seq Number:	3064015				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	09.20.18 19.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	09.20.18 19.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	09.20.18 19.18	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	09.20.18 19.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	09.20.18 19.18	
o-Terphenyl	84-15-1	100	%	70-135	09.20.18 19.18	

Certificate of Analytical Results 599689

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW13**	Matrix:	Soil	Date Received:	09.20.18 10.55
Lab Sample Id:	599689-001	Date Collected:	09.17.18 10.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.20.18 15.00	Basis:	Wet Weight
Seq Number:	3064021				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.21.18 07.50	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.21.18 07.50	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.21.18 07.50	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.21.18 07.50	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.21.18 07.50	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.21.18 07.50	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.21.18 07.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	09.21.18 07.50	
1,4-Difluorobenzene	540-36-3	104	%	70-130	09.21.18 07.50	

Certificate of Analytical Results 599689

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	09.20.18 10.55
Lab Sample Id:	599689-002	Date Collected:	09.17.18 10.50	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.20.18 17.00	Basis:	Wet Weight
Seq Number:	3063959				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**381**	5.01	mg/kg	09.20.18 23.58		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.20.18 13.00	Basis:	Wet Weight
Seq Number:	3064015				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	09.20.18 19.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	09.20.18 19.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	09.20.18 19.37	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	09.20.18 19.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	09.20.18 19.37	
o-Terphenyl	84-15-1	117	%	70-135	09.20.18 19.37	

Certificate of Analytical Results 599689

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	09.20.18 10.55
Lab Sample Id:	599689-002	Date Collected:	09.17.18 10.50	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.20.18 15.00	Basis:	Wet Weight
Seq Number:	3064021				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.21.18 08.10	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.21.18 08.10	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.21.18 08.10	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.21.18 08.10	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.21.18 08.10	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.21.18 08.10	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.21.18 08.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	165	%	70-130	09.21.18 08.10	**
1,4-Difluorobenzene	540-36-3	95	%	70-130	09.21.18 08.10	

Certificate of Analytical Results 599689

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW14**	Matrix:	Soil	Date Received:	09.20.18 10.55
Lab Sample Id:	599689-003	Date Collected:	09.17.18 14.10	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.20.18 17.30	Basis:	Wet Weight
Seq Number:	3063966				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**143**	4.96	mg/kg	09.21.18 00.49		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.20.18 13.00	Basis:	Wet Weight
Seq Number:	3064015				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.20.18 19.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.20.18 19.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.20.18 19.55	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.20.18 19.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	09.20.18 19.55	
o-Terphenyl	84-15-1	101	%	70-135	09.20.18 19.55	

Certificate of Analytical Results 599689

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW14**	Matrix:	Soil	Date Received:	09.20.18 10.55
Lab Sample Id:	599689-003	Date Collected:	09.17.18 14.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.20.18 15.00	Basis:	Wet Weight
Seq Number:	3064021				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.21.18 08.30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.21.18 08.30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.21.18 08.30	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.21.18 08.30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.21.18 08.30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.21.18 08.30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.21.18 08.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	09.21.18 08.30	
4-Bromofluorobenzene	460-00-4	138	%	70-130	09.21.18 08.30	**

Certificate of Analytical Results 599689

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW15**	Matrix:	Soil	Date Received:	09.20.18 10.55
Lab Sample Id:	599689-004	Date Collected:	09.17.18 15.00	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.20.18 17.30	Basis:	Wet Weight
Seq Number:	3063966				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**39.3**	5.00	mg/kg	09.21.18 00.55		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.20.18 13.00	Basis:	Wet Weight
Seq Number:	3064015				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.20.18 20.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.20.18 20.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.20.18 20.14	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.20.18 20.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	09.20.18 20.14	
o-Terphenyl	84-15-1	99	%	70-135	09.20.18 20.14	

Certificate of Analytical Results 599689

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW15**	Matrix:	Soil	Date Received:	09.20.18 10.55
Lab Sample Id:	599689-004	Date Collected:	09.17.18 15.00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.20.18 15.00	Basis:	Wet Weight
Seq Number:	3064021				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.21.18 08.51	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.21.18 08.51	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.21.18 08.51	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.21.18 08.51	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.21.18 08.51	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.21.18 08.51	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.21.18 08.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	09.21.18 08.51	
4-Bromofluorobenzene	460-00-4	153	%	70-130	09.21.18 08.51	**

Certificate of Analytical Results 599689

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW16**	Matrix:	Soil	Date Received:	09.20.18 10.55
Lab Sample Id:	599689-005	Date Collected:	09.17.18 16.05	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.20.18 17.30	Basis:	Wet Weight
Seq Number:	3063966				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**284**	4.98	mg/kg	09.21.18 01.01		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.20.18 13.00	Basis:	Wet Weight
Seq Number:	3064015				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	09.20.18 20.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	09.20.18 20.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	09.20.18 20.32	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	09.20.18 20.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	09.20.18 20.32	
o-Terphenyl	84-15-1	100	%	70-135	09.20.18 20.32	

Certificate of Analytical Results 599689

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SW16**	Matrix:	Soil	Date Received:	09.20.18 10.55
Lab Sample Id:	599689-005	Date Collected:	09.17.18 16.05	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.20.18 15.00	Basis:	Wet Weight
Seq Number:	3064021				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.21.18 09.11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.21.18 09.11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.21.18 09.11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.21.18 09.11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.21.18 09.11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.21.18 09.11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.21.18 09.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	161	%	70-130	09.21.18 09.11	**
1,4-Difluorobenzene	540-36-3	84	%	70-130	09.21.18 09.11	

Certificate of Analytical Results 599689

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	09.20.18 10.55
Lab Sample Id:	599689-006	Date Collected:	09.17.18 16.10	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	09.20.18 17.30	Basis:	Wet Weight
Seq Number:	3063966				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**229**	4.99	mg/kg	09.21.18 01.06		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.20.18 14.00	Basis:	Wet Weight
Seq Number:	3064020				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.20.18 21.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.20.18 21.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.20.18 21.49	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.20.18 21.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	09.20.18 21.49	
o-Terphenyl	84-15-1	100	%	70-135	09.20.18 21.49	

Certificate of Analytical Results 599689

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	09.20.18 10.55
Lab Sample Id:	599689-006	Date Collected:	09.17.18 16.10	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.20.18 08.00	Basis:	Wet Weight
Seq Number:	3064034				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.20.18 16.11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.20.18 16.11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.20.18 16.11	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.20.18 16.11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.20.18 16.11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.20.18 16.11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.20.18 16.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	86	%	70-130	09.20.18 16.11	
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.20.18 16.11	

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 599689

LT Environmental, Inc.

ND 19 Federal

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3063959 — Matrix: Solid — Date Prep: 09.20.18
MB Sample Id: 7662723-1-BLK — LCS Sample Id: 7662723-1-BKS — LCSD Sample Id: 7662723-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	256	102	256	102	90-110	0	20	mg/kg	09.20.18 21:13	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3063966 — Matrix: Solid — Date Prep: 09.20.18
MB Sample Id: 7662724-1-BLK — LCS Sample Id: 7662724-1-BKS — LCSD Sample Id: 7662724-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	257	103	258	103	90-110	0	20	mg/kg	09.21.18 00:21	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3063959 — Matrix: Soil — Date Prep: 09.20.18
Parent Sample Id: 599685-003 — MS Sample Id: 599685-003 S — MSD Sample Id: 599685-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	44.8	250	311	106	314	108	90-110	1	20	mg/kg	09.20.18 21:30	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3063959 — Matrix: Soil — Date Prep: 09.20.18
Parent Sample Id: 599685-006 — MS Sample Id: 599685-006 S — MSD Sample Id: 599685-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	681	249	906	90	908	91	90-110	0	20	mg/kg	09.20.18 22:50	

Analytical Method: Inorganic Anions by EPA 300 — Prep Method: E300P
Seq Number: 3063966 — Matrix: Soil — Date Prep: 09.20.18
Parent Sample Id: 599292-002 — MS Sample Id: 599292-002 S — MSD Sample Id: 599292-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	136	261	410	105	409	105	90-110	0	20	mg/kg	09.21.18 01:57	

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

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

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

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

Final 1.000

QC Summary 599689

LT Environmental, Inc.

ND 19 Federal

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3063966 Matrix: Soil Date Prep: 09.20.18
Parent Sample Id: 599687-003 MS Sample Id: 599687-003 S MSD Sample Id: 599687-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	312	249	562	100	564	101	90-110	0	20	mg/kg	09.21.18 00:38	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3064015 Matrix: Solid Date Prep: 09.20.18
MB Sample Id: 7662726-1-BLK LCS Sample Id: 7662726-1-BKS LCSD Sample Id: 7662726-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	989	99	976	98	70-135	1	20	mg/kg	09.20.18 14:00	
Diesel Range Organics (DRO)	<8.13	1000	1070	107	1060	106	70-135	1	20	mg/kg	09.20.18 14:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		120		123		70-135	%	09.20.18 14:00
o-Terphenyl	116		107		116		70-135	%	09.20.18 14:00

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3064020 Matrix: Solid Date Prep: 09.20.18
MB Sample Id: 7662729-1-BLK LCS Sample Id: 7662729-1-BKS LCSD Sample Id: 7662729-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	965	97	967	97	70-135	0	20	mg/kg	09.20.18 15:11	
Diesel Range Organics (DRO)	<8.13	1000	1010	101	1000	100	70-135	1	20	mg/kg	09.20.18 15:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		112		121		70-135	%	09.20.18 15:11
o-Terphenyl	115		104		111		70-135	%	09.20.18 15:11

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3064015 Matrix: Soil Date Prep: 09.20.18
Parent Sample Id: 599685-001 MS Sample Id: 599685-001 S MSD Sample Id: 599685-001 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)	<7.97	996	900	90	919	92	70-135	2	20	mg/kg	09.20.18 14:56	
Diesel Range Organics (DRO)	<8.10	996	998	100	1020	102	70-135	2	20	mg/kg	09.20.18 14:56	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		127		70-135	%	09.20.18 14:56
o-Terphenyl	123		121		70-135	%	09.20.18 14:56

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 599689

LT Environmental, Inc.

ND 19 Federal

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3064020 — Matrix: Soil — Date Prep: 09.20.18
Parent Sample Id: 599688-001 — MS Sample Id: 599688-001 S — MSD Sample Id: 599688-001 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)	<7.99	999	948	95	918	92	70-135	3	20	mg/kg	09.20.18 16:11	
Diesel Range Organics (DRO)	<8.12	999	975	98	948	95	70-135	3	20	mg/kg	09.20.18 16:11	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		122		70-135	%	09.20.18 16:11
o-Terphenyl	114		106		70-135	%	09.20.18 16:11

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3064034 — Matrix: Solid — Date Prep: 09.20.18
MB Sample Id: 7662754-1-BLK — LCS Sample Id: 7662754-1-BKS — LCSD Sample Id: 7662754-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0730	72	0.0735	73	70-130	1	35	mg/kg	09.20.18 08:44	
Toluene	<0.00202	0.101	0.0726	72	0.0726	72	70-130	0	35	mg/kg	09.20.18 08:44	
Ethylbenzene	<0.00202	0.101	0.0818	81	0.0813	80	70-130	1	35	mg/kg	09.20.18 08:44	
m,p-Xylenes	<0.00403	0.202	0.157	78	0.155	77	70-130	1	35	mg/kg	09.20.18 08:44	
o-Xylene	<0.00202	0.101	0.0815	81	0.0804	80	70-130	1	35	mg/kg	09.20.18 08:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		92		87		70-130	%	09.20.18 08:44
4-Bromofluorobenzene	86		101		99		70-130	%	09.20.18 08:44

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3064021 — Matrix: Solid — Date Prep: 09.20.18
MB Sample Id: 7662761-1-BLK — LCS Sample Id: 7662761-1-BKS — LCSD Sample Id: 7662761-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0988	98	0.0890	88	70-130	10	35	mg/kg	09.20.18 23:45	
Toluene	<0.00202	0.101	0.0926	92	0.0834	83	70-130	10	35	mg/kg	09.20.18 23:45	
Ethylbenzene	<0.00202	0.101	0.101	100	0.0914	90	70-130	10	35	mg/kg	09.20.18 23:45	
m,p-Xylenes	<0.00403	0.202	0.215	106	0.194	96	70-130	10	35	mg/kg	09.20.18 23:45	
o-Xylene	<0.00202	0.101	0.102	101	0.0976	97	70-130	4	35	mg/kg	09.20.18 23:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	74		89		86		70-130	%	09.20.18 23:45
4-Bromofluorobenzene	125		118		130		70-130	%	09.20.18 23:45

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 599689

LT Environmental, Inc.

ND 19 Federal

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3064034 | Matrix: Soil | Date Prep: 09.20.18
Parent Sample Id: 599386-011 | MS Sample Id: 599386-011 S | MSD Sample Id: 599386-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0591	59	0.0580	58	70-130	2	35	mg/kg	09.20.18 09:25	X
Toluene	<0.00199	0.0994	0.0574	58	0.0567	57	70-130	1	35	mg/kg	09.20.18 09:25	X
Ethylbenzene	<0.00199	0.0994	0.0650	65	0.0644	65	70-130	1	35	mg/kg	09.20.18 09:25	X
m,p-Xylenes	<0.00398	0.199	0.125	63	0.123	62	70-130	2	35	mg/kg	09.20.18 09:25	X
o-Xylene	<0.00199	0.0994	0.0647	65	0.0641	64	70-130	1	35	mg/kg	09.20.18 09:25	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		129		70-130	%	09.20.18 09:25
4-Bromofluorobenzene	110		99		70-130	%	09.20.18 09:25

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3064021 | Matrix: Soil | Date Prep: 09.20.18
Parent Sample Id: 599685-001 | MS Sample Id: 599685-001 S | MSD Sample Id: 599685-001 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	0.0814	81	0.0777	78	70-130	5	35	mg/kg	09.21.18 00:26	
Toluene	<0.00202	0.101	0.0778	77	0.0731	73	70-130	6	35	mg/kg	09.21.18 00:26	
Ethylbenzene	<0.00202	0.101	0.0841	83	0.0765	77	70-130	9	35	mg/kg	09.21.18 00:26	
m,p-Xylenes	<0.00403	0.202	0.178	88	0.162	81	70-130	9	35	mg/kg	09.21.18 00:26	
o-Xylene	<0.00202	0.101	0.0871	86	0.0794	79	70-130	9	35	mg/kg	09.21.18 00:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	81		82		70-130	%	09.21.18 00:26
4-Bromofluorobenzene	129		130		70-130	%	09.21.18 00:26

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

XENCO LABORATORIES

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CHAIN OF CUSTODY

Page 1 Of 1

Xenco Quote #: | Xenco Job #: 594689

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office
Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705
Email: Abaker@ltenv.com | Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name: BenBeloll

Project Information

Project Name/Number: ~~B365~~ ND19 Federal
Project Location: Carlsbad, NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-2663

Analytical Information

BTEX EPA 8020
TPH EPA 8015
Chlorides 300.1

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	SW13	2'	9/17/18	1000	S	1								X	
2	F507	4'		1050										X	
3	SW14	2'		1410										X	
4	SW15	2'		1500										X	
5	SW16	2'		1605										X	
6	F508	4'	↓	1610	↓	↓								X	
7															
8			9/17/18		BS										
9															
10															

Turnaround Time (Business days)

- [X] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level III Std QC+ Forms
- [ ] Level 3 (CLP Forms)
- [ ] TRRP Checklist
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] TRRP Level IV
- [ ] UST / RG -411

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		9/18/18 1705				
2					9/19/18 15:30	
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						9/20/18 1055
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: X

Cooler Temp. 0.2 | Thermo. Corr. Factor 0.8

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

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

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09/20/2018 10:55:00 AM

Work Order #: 599689

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

Temperature Measuring device used : R8

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 09/20/2018
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 09/20/2018
Jessica Kramer

Analytical Report 599988

for

LT Environmental, Inc.

Project Manager: Adrian Baker

ND 19 Federal

02-OCT-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

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

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

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

02-OCT-18

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

Reference: XENCO Report No(s): **599988**
ND 19 Federal
Project Address: Carlsbad, NM

Adrian Baker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 599988. 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. 599988 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 599988

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS09	S	09-20-18 13:40	4 ft	599988-001
SS06	S	09-20-18 13:45	6 In	599988-002
SS07	S	09-20-18 13:50	6 In	599988-003
SS08	S	09-20-18 13:55	6 In	599988-004
SS09	S	09-20-18 14:00	6 In	599988-005

Version: 1.%

CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: ND 19 Federal

Project ID:
Work Order Number(s): *599988*

Report Date: *02-OCT-18*
Date Received: *09/22/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3064877 BTEX by EPA 8021B

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

Certificate of Analysis Summary 599988

LT Environmental, Inc., Arvada, CO

Project Name: ND 19 Federal

Project Id:
Contact: Adrian Baker
Project Location: Carlsbad, NM

Date Received in Lab: Sat Sep-22-18 09:00 am
Report Date: 02-OCT-18
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	599988-001		599988-002		599988-003		599988-004		599988-005	
	Field Id:	FS09		SS06		SS07		SS08		SS09	
	Depth:	4- ft		6- In		6- In		6- In		6- In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-20-18 13:40		Sep-20-18 13:45		Sep-20-18 13:50		Sep-20-18 13:55		Sep-20-18 14:00	
BTEX by EPA 8021B	*Extracted:*	Sep-28-18 16:15		Sep-28-18 16:15		Sep-28-18 16:15		Sep-28-18 16:15		Sep-28-18 16:15	
	Analyzed:	Sep-29-18 08:31		Sep-29-18 08:53		Sep-29-18 09:13		Sep-29-18 09:34		Sep-29-18 10:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Toluene		<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Ethylbenzene		<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
m,p-Xylenes		<0.00402	0.00402	<0.00404	0.00404	<0.00398	0.00398	<0.00399	0.00399	<0.00403	0.00403
o-Xylene		<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Total Xylenes		<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Total BTEX		<0.00201	0.00201	<0.00202	0.00202	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Inorganic Anions by EPA 300	*Extracted:*	Sep-25-18 16:00		Sep-25-18 16:00		Sep-25-18 16:00		Sep-25-18 16:00		Sep-25-18 16:00	
	Analyzed:	Sep-25-18 20:34		Sep-25-18 20:39		Sep-25-18 20:45		Sep-25-18 21:02		Sep-25-18 21:08	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		272	4.98	79.6	5.00	14.8	5.00	<4.95	4.95	<4.97	4.97
TPH by SW8015 Mod	*Extracted:*	Sep-25-18 14:00		Sep-25-18 14:00		Sep-24-18 14:00		Sep-24-18 14:00		Sep-24-18 14:00	
	Analyzed:	Sep-26-18 06:22		Sep-26-18 06:41		Sep-25-18 13:01		Sep-25-18 13:19		Sep-25-18 13:38	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

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

Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analytical Results 599988

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	09.22.18 09.00
Lab Sample Id:	599988-001	Date Collected:	09.20.18 13.40	Sample Depth:	4 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.25.18 16.00	Basis:	Wet Weight
Seq Number:	3064441				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**272**	4.98	mg/kg	09.25.18 20.34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.25.18 14.00	Basis:	Wet Weight
Seq Number:	3064467				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.26.18 06.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.26.18 06.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.26.18 06.22	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.26.18 06.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	09.26.18 06.22	
o-Terphenyl	84-15-1	94	%	70-135	09.26.18 06.22	

Certificate of Analytical Results 599988

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**FS09**	Matrix:	Soil	Date Received:	09.22.18 09.00
Lab Sample Id:	599988-001	Date Collected:	09.20.18 13.40	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.28.18 16.15	Basis:	Wet Weight
Seq Number:	3064877				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.29.18 08.31	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.29.18 08.31	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.29.18 08.31	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.29.18 08.31	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.29.18 08.31	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.29.18 08.31	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.29.18 08.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	09.29.18 08.31	
4-Bromofluorobenzene	460-00-4	101	%	70-130	09.29.18 08.31	

Certificate of Analytical Results 599988

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	09.22.18 09.00
Lab Sample Id:	599988-002	Date Collected:	09.20.18 13.45	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.25.18 16.00	Basis:	Wet Weight
Seq Number:	3064441				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**79.6**	5.00	mg/kg	09.25.18 20.39		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.25.18 14.00	Basis:	Wet Weight
Seq Number:	3064467				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.26.18 06.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.26.18 06.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.26.18 06.41	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.26.18 06.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	09.26.18 06.41	
o-Terphenyl	84-15-1	96	%	70-135	09.26.18 06.41	

Certificate of Analytical Results 599988

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SS06**	Matrix:	Soil	Date Received:	09.22.18 09.00
Lab Sample Id:	599988-002	Date Collected:	09.20.18 13.45	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.28.18 16.15	Basis:	Wet Weight
Seq Number:	3064877				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.29.18 08.53	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.29.18 08.53	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.29.18 08.53	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	09.29.18 08.53	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.29.18 08.53	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.29.18 08.53	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.29.18 08.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	09.29.18 08.53	
1,4-Difluorobenzene	540-36-3	105	%	70-130	09.29.18 08.53	

Certificate of Analytical Results 599988

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SS07**	Matrix:	Soil	Date Received:	09.22.18 09.00
Lab Sample Id:	599988-003	Date Collected:	09.20.18 13.50	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.25.18 16.00	Basis:	Wet Weight
Seq Number:	3064441				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.8**	5.00	mg/kg	09.25.18 20.45		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.24.18 14.00	Basis:	Wet Weight
Seq Number:	3064381				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.25.18 13.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.25.18 13.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.25.18 13.01	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.25.18 13.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.25.18 13.01	
o-Terphenyl	84-15-1	98	%	70-135	09.25.18 13.01	

Certificate of Analytical Results 599988

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SS07**	Matrix:	Soil	Date Received:	09.22.18 09.00
Lab Sample Id:	599988-003	Date Collected:	09.20.18 13.50	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.28.18 16.15	Basis:	Wet Weight
Seq Number:	3064877				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.29.18 09.13	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.29.18 09.13	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.29.18 09.13	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.29.18 09.13	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.29.18 09.13	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.29.18 09.13	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.29.18 09.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	09.29.18 09.13	
4-Bromofluorobenzene	460-00-4	100	%	70-130	09.29.18 09.13	

Certificate of Analytical Results 599988

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SS08**	Matrix:	Soil	Date Received:	09.22.18 09.00
Lab Sample Id:	599988-004	Date Collected:	09.20.18 13.55	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.25.18 16.00	Basis:	Wet Weight
Seq Number:	3064441				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	09.25.18 21.02	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.24.18 14.00	Basis:	Wet Weight
Seq Number:	3064381				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.25.18 13.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.25.18 13.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.25.18 13.19	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.25.18 13.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	09.25.18 13.19	
o-Terphenyl	84-15-1	99	%	70-135	09.25.18 13.19	

Certificate of Analytical Results 599988

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SS08**	Matrix:	Soil	Date Received:	09.22.18 09.00
Lab Sample Id:	599988-004	Date Collected:	09.20.18 13.55	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.28.18 16.15	Basis:	Wet Weight
Seq Number:	3064877				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.29.18 09.34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.29.18 09.34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.29.18 09.34	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.29.18 09.34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.29.18 09.34	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.29.18 09.34	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.29.18 09.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	09.29.18 09.34	
1,4-Difluorobenzene	540-36-3	109	%	70-130	09.29.18 09.34	

Certificate of Analytical Results 599988

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SS09**	Matrix:	Soil	Date Received:	09.22.18 09.00
Lab Sample Id:	599988-005	Date Collected:	09.20.18 14.00	Sample Depth:	6 In

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	09.25.18 16.00	Basis:	Wet Weight
Seq Number:	3064441				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	09.25.18 21.08	U	1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	09.24.18 14.00	Basis:	Wet Weight
Seq Number:	3064381				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	09.25.18 13.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	09.25.18 13.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	09.25.18 13.38	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	09.25.18 13.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	09.25.18 13.38	
o-Terphenyl	84-15-1	92	%	70-135	09.25.18 13.38	

Certificate of Analytical Results 599988

LT Environmental, Inc., Arvada, CO

ND 19 Federal

Sample Id:	**SS09**	Matrix:	Soil	Date Received:	09.22.18 09.00
Lab Sample Id:	599988-005	Date Collected:	09.20.18 14.00	Sample Depth:	6 In
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	09.28.18 16.15	Basis:	Wet Weight
Seq Number:	3064877				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.29.18 10.12	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.29.18 10.12	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.29.18 10.12	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.29.18 10.12	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.29.18 10.12	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.29.18 10.12	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.29.18 10.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	112	%	70-130	09.29.18 10.12	
4-Bromofluorobenzene	460-00-4	106	%	70-130	09.29.18 10.12	

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 599988

LT Environmental, Inc.

ND 19 Federal

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3064441 Matrix: Solid Date Prep: 09.25.18
MB Sample Id: 7662975-1-BLK LCS Sample Id: 7662975-1-BKS LCSD Sample Id: 7662975-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	258	103	258	103	90-110	0	20	mg/kg	09.25.18 20:00	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3064441 Matrix: Soil Date Prep: 09.25.18
Parent Sample Id: 599898-003 MS Sample Id: 599898-003 S MSD Sample Id: 599898-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	236	249	487	101	493	103	90-110	1	20	mg/kg	09.25.18 21:36	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3064441 Matrix: Soil Date Prep: 09.25.18
Parent Sample Id: 599986-002 MS Sample Id: 599986-002 S MSD Sample Id: 599986-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	26.8	250	288	104	289	105	90-110	0	20	mg/kg	09.25.18 20:17	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3064381 Matrix: Solid Date Prep: 09.24.18
MB Sample Id: 7662957-1-BLK LCS Sample Id: 7662957-1-BKS LCSD Sample Id: 7662957-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	967	97	1020	102	70-135	5	20	mg/kg	09.24.18 23:21	
Diesel Range Organics (DRO)	<8.13	1000	993	99	1060	106	70-135	7	20	mg/kg	09.24.18 23:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		122		128		70-135	%	09.24.18 23:21
o-Terphenyl	109		115		126		70-135	%	09.24.18 23:21

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 599988

LT Environmental, Inc.

ND 19 Federal

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3064467 — Matrix: Solid — Date Prep: 09.25.18
MB Sample Id: 7662999-1-BLK — LCS Sample Id: 7662999-1-BKS — LCSD Sample Id: 7662999-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	988	99	1040	104	70-135	5	20	mg/kg	09.26.18 02:19	
Diesel Range Organics (DRO)	<8.13	1000	1010	101	1060	106	70-135	5	20	mg/kg	09.26.18 02:19	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		122		125		70-135	%	09.26.18 02:19
o-Terphenyl	104		120		124		70-135	%	09.26.18 02:19

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3064381 — Matrix: Soil — Date Prep: 09.24.18
Parent Sample Id: 599985-021 — MS Sample Id: 599985-021 S — MSD Sample Id: 599985-021 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)	<7.98	997	925	93	916	92	70-135	1	20	mg/kg	09.25.18 00:18	
Diesel Range Organics (DRO)	<8.10	997	951	95	937	94	70-135	1	20	mg/kg	09.25.18 00:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		114		70-135	%	09.25.18 00:18
o-Terphenyl	109		111		70-135	%	09.25.18 00:18

Analytical Method: TPH by SW8015 Mod — Prep Method: TX1005P
Seq Number: 3064467 — Matrix: Soil — Date Prep: 09.25.18
Parent Sample Id: 599987-001 — MS Sample Id: 599987-001 S — MSD Sample Id: 599987-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	8.14	998	898	89	916	91	70-135	2	20	mg/kg	09.26.18 03:15	
Diesel Range Organics (DRO)	<8.11	998	915	92	936	94	70-135	2	20	mg/kg	09.26.18 03:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		118		70-135	%	09.26.18 03:15
o-Terphenyl	101		106		70-135	%	09.26.18 03:15

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 599988

LT Environmental, Inc.

ND 19 Federal

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3064877 Matrix: Solid Date Prep: 09.28.18

MB Sample Id: 7663273-1-BLK LCS Sample Id: 7663273-1-BKS LCSD Sample Id: 7663273-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0905	90	0.0908	91	70-130	0	35	mg/kg	09.29.18 06:11	
Toluene	<0.00202	0.101	0.0848	84	0.0836	84	70-130	1	35	mg/kg	09.29.18 06:11	
Ethylbenzene	<0.00202	0.101	0.0966	96	0.0972	97	70-130	1	35	mg/kg	09.29.18 06:11	
m,p-Xylenes	<0.00404	0.202	0.186	92	0.185	92	70-130	1	35	mg/kg	09.29.18 06:11	
o-Xylene	<0.00202	0.101	0.0968	96	0.0971	97	70-130	0	35	mg/kg	09.29.18 06:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		110		110		70-130	%	09.29.18 06:11
4-Bromofluorobenzene	91		103		108		70-130	%	09.29.18 06:11

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3064877 Matrix: Soil Date Prep: 09.28.18

Parent Sample Id: 599988-001 MS Sample Id: 599988-001 S MSD Sample Id: 599988-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0860	86	0.0831	83	70-130	3	35	mg/kg	09.29.18 06:53	
Toluene	<0.00199	0.0996	0.0793	80	0.0788	79	70-130	1	35	mg/kg	09.29.18 06:53	
Ethylbenzene	<0.00199	0.0996	0.0886	89	0.0886	89	70-130	0	35	mg/kg	09.29.18 06:53	
m,p-Xylenes	<0.00398	0.199	0.167	84	0.169	85	70-130	1	35	mg/kg	09.29.18 06:53	
o-Xylene	<0.00199	0.0996	0.0866	87	0.0877	88	70-130	1	35	mg/kg	09.29.18 06:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	114		117		70-130	%	09.29.18 06:53
4-Bromofluorobenzene	109		110		70-130	%	09.29.18 06:53

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

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CHAIN OF CUSTODY

Page 1 Of 1

Xenco Quote #:
Xenco Job #: 599980

Client / Reporting Information

Company Name / Branch: LT Environmental, Inc. - Permian Office
Company Address: 3300 North "A" Street, Building 1, Unit #103, Midland, TX 79705
Email: Abaker@ltenv.com
Phone No: (432) 704-5178
Project Contact: Adrian Baker
Samplers's Name: Ben Bell

Project Information

Project Name/Number: ND 19 Federal
Project Location: Carlsbad, NM
Invoice To: XTO Energy - Kyle Littrell
PO Number: 2RP-2663

Analytical Information: BTEX EPA 8020; TPH EPA 8015; Chlorides 300.1

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	BTEX EPA 8020	TPH EPA 8015	Chlorides 300.1	Field Comments
1	ES09	4'	9/20/18	1340	S	1								X	X	X	X	
2	SS06	6"	↓	1345	↓	↓								X	X	X	X	
3	SS07	6"	↓	1350	↓	↓								X	X	X	X	
4	SS08	6"	↓	1355	↓	↓								X	X	X	X	
5	SS09	6"	↓	1400	↓	↓								X	X	X	X	
6																		
7																		
8		BJB	9/20/18															
9																		
10																		

Matrix Codes
W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

Turnaround Time (Business days)
- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information
- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking # 770297460767

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler: 1 Ben Bell	Date Time: 9/20/18 @ 17:25	Received By: 1 [signature]	Relinquished By: 2 [signature]	Date Time: 9/21/18 15:30	Received By: 2 [signature] 9/22/18 0900
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: ✓ Cooler Temp.: 0.2 Thermo. Corr. Factor: IR0-0

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

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

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09/22/2018 09:00:00 AM

Work Order #: 599988

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

Temperature Measuring device used : R8

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

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

Analyst:

PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 09/24/2018

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 09/24/2018

Jessica Kramer

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG

Photograph 1: View southeast of excavation.

Photograph 2: View northeast of excavation.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

COMMENTS

Action 199084

COMMENTS

Operator: BOPCO, L.P. 6401 Holiday Hill Rd Midland, TX 79707	OGRID: 260737
	Action Number: 199084
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

COMMENTS

Created By	Comment	Comment Date
amaxwell	Historical document upload.	3/21/2023

District I
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CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	3/21/2023