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

March 22, 2019

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

RE: Closure Request
Remuda South 25 State #123H Well Pad/Remuda 100 Battery
Remediation Permit Numbers 2RP-5277 and 2RP-5193
Eddy County, New Mexico

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following report detailing delineation soil sampling activities at the Remuda South 25 South #123H well pad/Remuda 100 battery (Site) located in Unit E, Section 25, Township 23 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the delineation soil sampling activities was to assess impacts to soil after two separate events caused the release of crude oil from the same flare stack. XTO reported the releases under two different facility names and API numbers (Remuda South 25 South #123H well pad/API number 30-015-44389 and Remuda 100 battery/API number 03-015-44231); however, the releases occurred at the same physical location provided above.

On December 13, 2018, a flowback separator temporarily malfunctioned and sent fluid to the flare stack. The oil that exited the flare stack ignited and caused a small fire on the well pad. Approximately of 0.5 barrels (bbls) of crude oil was released. The fire and fluids remained on the well pad. The fire was quickly extinguished, and the separator was repaired. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on December 20, 2018, and was assigned Remediation Permit (RP) Number 2RP-5277 (Attachment 1).

On January 5, 2019, the back pressure valve on the flare scrubber lost pressure, causing the scrubber to load up and release fluid from the flare stack. Approximately of 5 barrels of crude oil were released onto the surface of the well pad and the pasture area north of the pad. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on January 18, 2019, and was assigned Remediation Permit (RP) Number 2RP-5193 (Attachment 1).

Approximately 6,000 square feet of the well pad and pasture area north of the pad were affected by the two releases. Since both releases occurred in the same area, delineation and soil sampling

activities were completed to assess and close both releases simultaneously. Based on the delineation activities and results of the confirmation soil sampling event, XTO is requesting no further action for these two releases.

BACKGROUND

The releases occurred after August 14, 2018; therefore, LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be less than 50 feet below ground surface (bgs) based on the nearest water well data. The nearest permitted water well with depth to water data is USGS 321717103561001 23S.29E.24.41321, located approximately 0.24 miles northeast of the Site, with a depth to groundwater of 50.26 feet. The total depth of the water well is not determined. The water well is approximately 30 feet lower in elevation than the Site. The nearest continuously flowing water or significant watercourse is a lower grade tributary located less than 300 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is overlying an unstable karst area. Based on these criteria, the following NMOCD Table 1 closure criteria apply: 10 milligrams per kilogram (mg/kg) benzene; 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX); 100 mg/kg total petroleum hydrocarbons (TPH); and 600 mg/kg chloride.

DELINEATION SOIL SAMPLING ACTIVITIES

On January 10, 2019, LTE personnel inspected the Site to evaluate the release extent. Surface hydrocarbon staining was observed in the release area on the well pad and pasture area north of the pad. The release extent was mapped using a handheld Global Positing System (GPS) unit and is depicted on Figure 2.

On March 6, 2019, LTE personnel returned to the Site to delineate the lateral and vertical extent of impacted soil as indicated by field screening activities and the documented release area. Potholes were advanced with a backhoe at ten locations (PH01 through PH10) in and around the release area. Potholes PH03 and PH09 were advanced within the release area as close as safely possible to the active flare. The remainder of the release area was too close to the flare or part of the containment berm. Soil was field screened in each pothole for volatile aromatic hydrocarbons and chloride using a photo-ionization detector (PID) and Hach® chloride QuanTab® test strips. Two soil samples were collected for laboratory analysis from each pothole, PH01 through PH10. Soil samples were collected from depths of 1 foot and 2 feet or 2.3 feet bgs from potholes PH01 through PH03; soil samples were collected from depths of 0.5 feet and 4.5 feet bgs from potholes PH04 through PH08; soil samples were collected from depths of 0.5 feet and

2 feet bgs from pothole PH09; and soil samples were collected from depths of 0.5 feet and 1.5 feet bgs from pothole PH10.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler, method of analysis, and immediately placed on ice. The soil samples were shipped at 4 degrees Celsius (°C) under strict chain-of-custody procedures to Xenco Laboratories (Xenco) in Midland, Texas, for analysis of BTEX by United States Environmental Protection Agency (USEPA) Method 8021B, TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) by USEPA Method 8015M/D, and chloride by USEPA Method 300.0. The pothole soil sample locations and depths are presented on Figure 2 and soil sample logs are included as Attachment 2.

ANALYTICAL RESULTS

Laboratory analytical results indicated that BTEX, TPH, and chloride concentrations were compliant with the NMOCD Table 1 closure criteria in all soil samples collected from potholes PH01 through PH10. Laboratory analytical results are presented on Figure 2 and summarized in Table 1, and the laboratory analytical report is included as Attachment 3.

CONCLUSIONS

Soil samples were collected from ten potholes (PH01 through PH10) in and around the release area to determine if soil exceeding the NMOCD Table 1 closure criteria was present as a result of the flare stack releases. Laboratory analytical results indicated that BTEX, TPH, and chloride concentrations were compliant with the NMOCD Table 1 closure criteria in all soil samples collected. Based on the laboratory analytical results, no soil excavation was required. XTO requests no further action for release numbers 2RP-5277 and 2RP-5193. An updated NMOCD Form C-141 for each release is included as Attachment 1. A photographic log of the Site is included as Attachment 4.

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
Robert Hamlet, NMOCD
Ryan Mann, State Land Office
Victoria Venegas, NMOCD

Attachments:

Figure 1	Site Location Map
Figure 2	Delineation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Initial/Final NMOCD Form C-141 (2RP-5277 and 2RP-5193)
Attachment 2	Soil Sample Logs
Attachment 3	Laboratory Analytical Reports
Attachment 4	Photographic Log

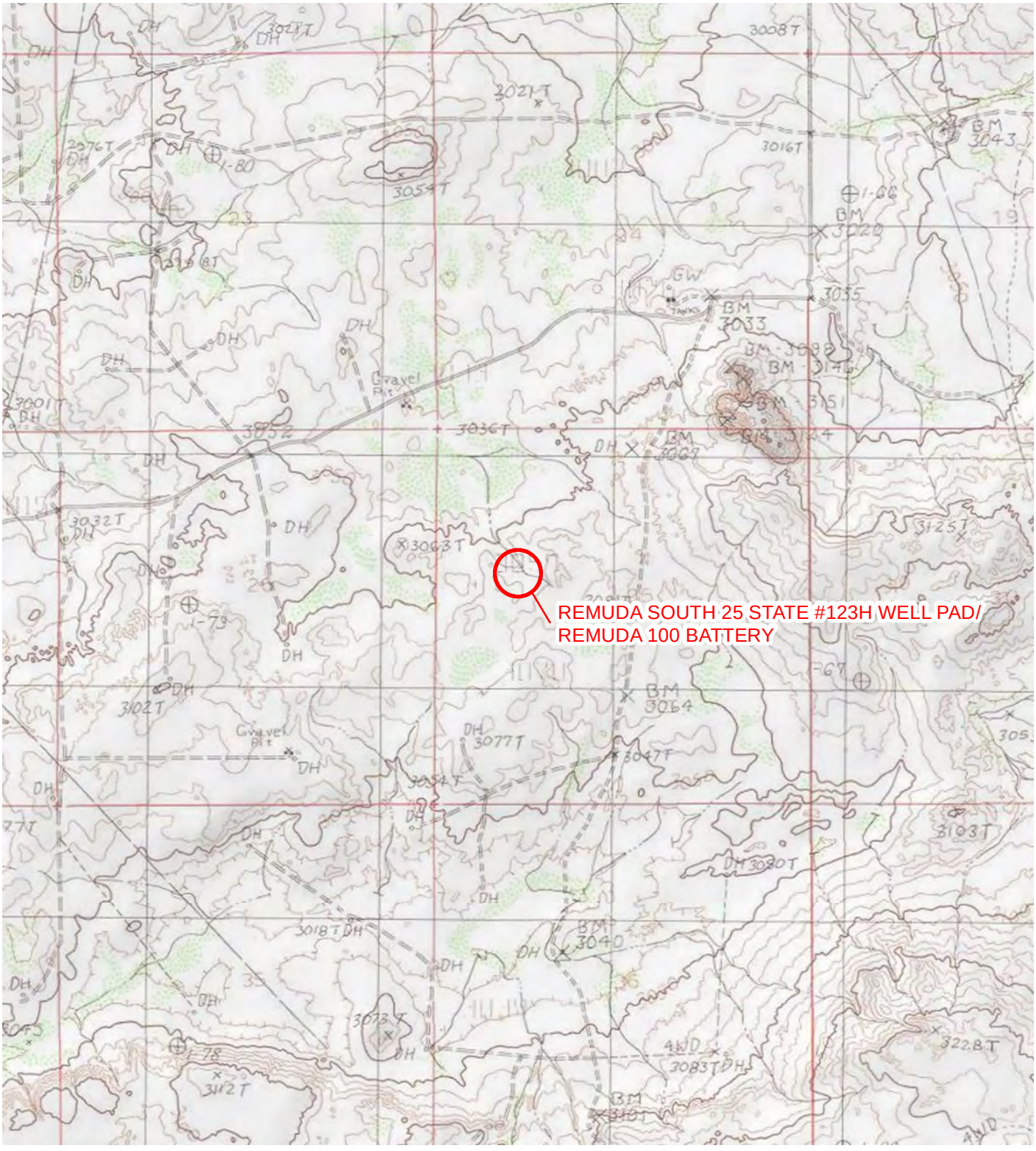

IMAGE COURTESY OF ESRI/USGS

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

N

NEW MEXICO

NOTE: REMEDIATION PERMIT NUMBERS 2RP-5193 & 2RP-5277

FIGURE 1
SITE LOCATION MAP
REMUDA SOUTH 25 STATE #123H WELL PAD/
REMUDA 100 BATTERY
UNIT E SEC 25 T23S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

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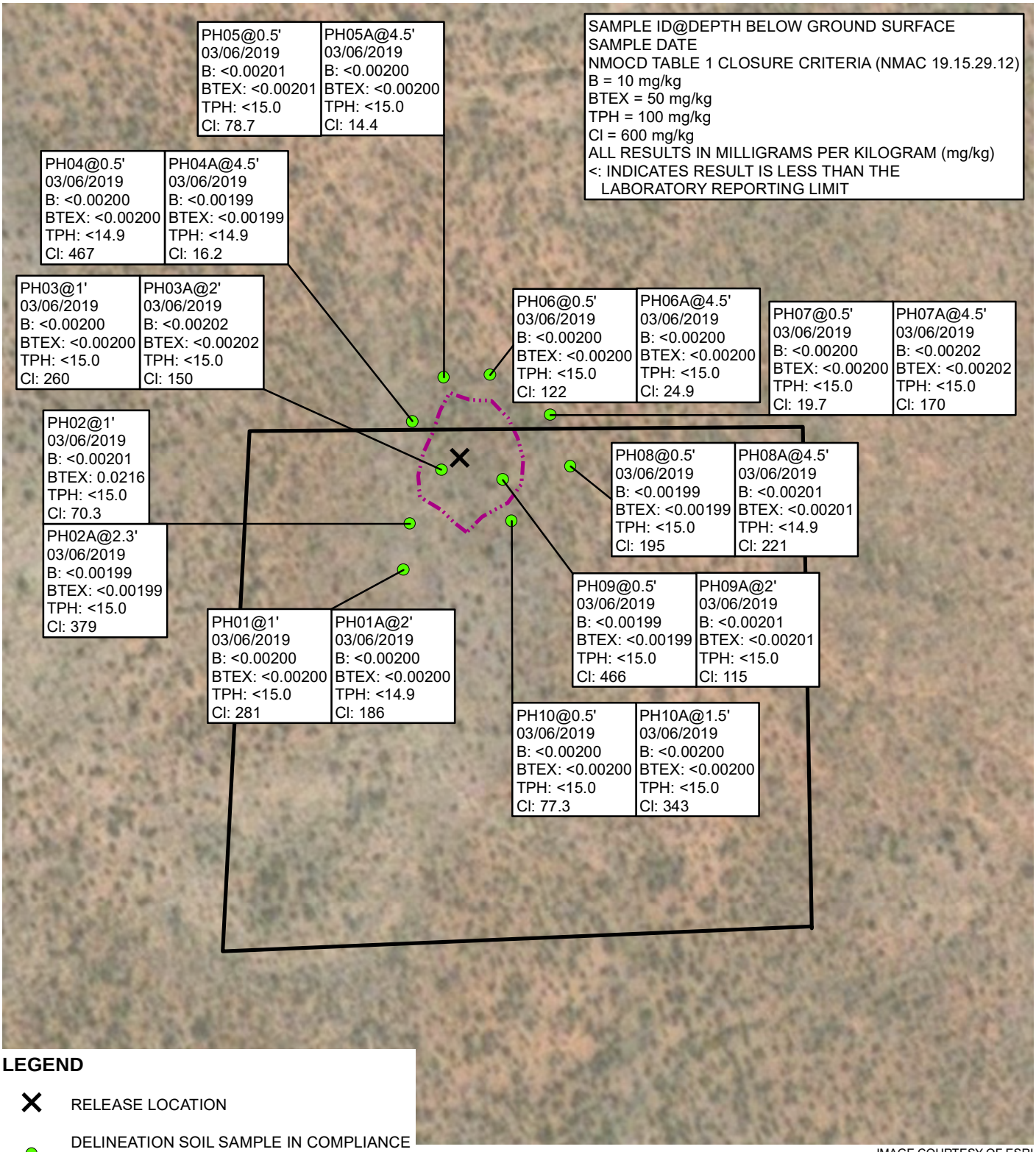

LEGEND

- RELEASE LOCATION
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE STANDARDS
- RELEASE EXTENT
- APPROXIMATE PAD BOUNDARY

B: BENZENE
BTEX: TOTAL BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
TPH – TOTAL PETROLEUM HYDROCARBONS
Cl - CHLORIDE
NMAC – NEW MEXICO ADMINISTRATIVE CODE
NMOCD – NEW MEXICO OIL CONSERVATION DIVISION
NOTE: REMEDIATION PERMIT NUMBER 2RP-5193 & 2RP-5277

FIGURE 2
DELINEATION SOIL SAMPLE LOCATIONS
REMUDA SOUTH 25 STATE #123H WELL PAD/
REMUDA 100 BATTERY
UNIT E SEC 25 T23S R29E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012918197_REMUDA SOUTH 25 STATE #123H\012918197_FIG02_DELINEATION SS_2019_5193_5277.mxd

TABLE 1
SOIL ANALYTICAL RESULTS

REMUDA SOUTH 25 STATE #123H WELL PAD / REMUDA 100 BATTERY
REMEDIATION PERMIT NUMBERS 2RP-5277 AND 2RP-5193
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)
PH01	1	03/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	281
PH01A	2	03/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	186
PH02	1	03/06/2019	<0.00201	0.00392	0.00438	0.0133	0.0216	<15.0	<15.0	<15.0	<15.0	<15.0	70.3
PH02A	2.3	03/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	379
PH03	1	03/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	260
PH03A	2	03/06/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	150
PH04	0.5	03/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	467
PH04A	4.5	03/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<14.9	<14.9	<14.9	<14.9	<14.9	16.2
PH05	0.5	03/06/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	78.7
PH05A	4.5	03/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	14.4
PH06	0.5	03/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	122
PH06A	4.5	03/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	24.9
PH07	0.5	03/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	19.7
PH07A	4.5	03/06/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	170
PH08	0.5	03/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	195
PH08A	4.5	03/06/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<14.9	<14.9	<14.9	<14.9	<14.9	221
PH09	0.5	03/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	466
PH09A	2	03/06/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	115
PH10	0.5	03/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	77.3
PH10A	1.5	03/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	343
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600

Notes:
bgs - below ground surface
BTEX - benzene, toluene, ethylbenzene, and total xylenes
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
* - indicates sample was collected in area to be reclaimed after remediation is complete; closure criteria for chloride concentration in the top 4 feet of soil is 600 mg/kg
Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018
NMAC - New Mexico Administrative Code

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	NAB1906537471
District RP	2 2RP-5277
Facility ID	
Application ID	pAB1906537093

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.276948 Longitude -103.939802
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Remuda South 25 State #123H	Site Type Production Well
Date Release Discovered 12/13/2018	API# *(if applicable)* 30-015-44389

Unit Letter	Section	Township	Range	County
F	25	23S	29E	Eddy

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

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) 0.5	Volume Recovered (bbls) 0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A flowback separator temporarily malfunctioned and sent fluid to the flare stack. As the oil exited the flare stack, it ignited and caused a small fire on the ground. The fire was quickly extinguished with no injuries. No fluid or fire escaped the well pad and the separator was repaired.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906537471
District RP	2 2RP-5277
Facility ID	
Application ID	pAB1906537093

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? An unauthorized release of a volume that results in a fire or is the result of a fire

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Notice provided by Amy Ruth to Maria Pruett, Mike Bratcher, Jim Griswold (NMOCD), Ryan Mann (SLO), and Shelly Tucker (BLM) on 12/13/2018 by email

Initial Response

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

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

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

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: 12-20-18

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906537471
District RP	2 2RP-5277
Facility ID	
Application ID	pAB1906537093

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	50-100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☒ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906537471
District RP	2 2RP-5277
Facility ID	
Application ID	pAB1906537093

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: 12-20-18

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NAB1906537471
District RP	2RP-5277
Facility ID	
Application ID	pAB1906537093

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.***

[X] A scaled site and sampling diagram as described in 19.15.29.11 NMAC

[X] 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)

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

[X] Description of remediation activities

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 3-22-19

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:

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	NAB1902338957
District RP	2 2RP-5193
Facility ID	fAB1902338252
Application ID	pAB1902338501

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # *(assigned by OCD)* NAB1902338957
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.276603 Longitude -103.942674

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Remuda 100 Battery	Site Type Bulk Storage and Separation Facility
Date Release Discovered 1/5/2019	API# *(if applicable)* 30-015-44231 Remuda N 25 St. 902H **

Unit Letter	Section	Township	Range	County
E	25	23S	29E	Eddy

**Site name is different than Well Name/API listed above. So, treating this as a facility. AB

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

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) 5	Volume Recovered (bbls) 0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Release was due to back pressure valve on flare scrubber losing pressure, causing scrubber to load up and release fluid from flare stack. There was no fire. An environmental contractor has been retained to assist with remediation.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1902338957
District RP	2 2RP-5193
Facility ID	fAB1902338252
Application ID	pAB1902338501

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

Initial Response

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

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

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

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

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

Printed Name: Kyle Littrell
Title: SH&E Coordinator
Signature:
Date: 1-18-19
email: Kyle_Littrell@xtoenergy.com
Telephone: 432-221-7331

OCD Only

Received by: Amalia Barrantes
Date: 1/23/2019

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5193
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	50-100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☒ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5193
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Coordinator

Signature: Date: March 22, 2019

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-5193
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). Site photographs are included showing the site and excavations.

☒ 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: March 22, 2019

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

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

ATTACHMENT 2: SOIL SAMPLE LOGS

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

Identifier: PH01	Date: 03/06/19
Project Name: Remuda S25N 123H	RP Number: 2RP-5277
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: / Method: Pot Hole
Lat/Long: / Field Screening:	Hole Diameter: 2 ft / Total Depth: 2 ft

Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1110	dry		15.2	N		0	0.5'	S	Caliche
1115	dry	556.8	1.3 RML	N		1	1.0'	S	red sand
1120	dry	198.4	7.9	N		2	2.0'	S	red sand
						3			
						4			
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

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

Compliance · Engineering · Remediation

Identifier: PH02	Date: 03/06/19
Project Name: Remuda S25N 123H	RP Number: 2RP-5277
Logged By:	Method: Pot Hole
Hole Diameter: 2 ft	Total Depth: 2.3'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1125	dry	454.4	0.3	N		0	0.5'	S	Caliche
1130	dry	454.4	5.3	N		1	1'	S	red sand
1140	dry	198.4	2.9	N		2	2.3'	S	Sand trace roots
						3			
						4			
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

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

Compliance · Engineering · Remediation

Identifier: PH03	Date: 03/06/19
Project Name: Remuda S25N 123H	RP Number: 2RP-5277
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: / Method: Pot Hole
Lat/Long: / Field Screening:	Hole Diameter: 2 ft / Total Depth: 2'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1200 dry	198.4	5.0	N		0	0.5'	S	Caliche
1200 dry	198.4	4.6	N		1	1.0'	S	red sand
1205 dry	198.4	3.0	N		2	2.0'	S	red sand
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

LT Environmental, Inc.

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

Compliance · Engineering · Remediation

Identifier: PH04	Date: 03/06/19
Project Name: Remuda S25N 123H	RP Number: 2RP-5277
Logged By:	Method: Pot Hole
Hole Diameter: 2 ft	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
dry	1574.4	4.2	N		0–1	1'	S	red sand
dry	787.2	3.4	N		2	2'	S	red sand
dry	198.4	4.4	N		3	3.5'	S	red sand
dry	198.4	3.8	N		4	4.5'	S	red sand compact

5 6 7 8 9 10 11 12

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
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Identifier: PH05	Date: 03/06/19
Project Name: Remuda S25N 123H	RP Number: 2RP-5277
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: / Method: Pot Hole
Lat/Long: / Field Screening:	Hole Diameter: 2 ft / Total Depth: 4.5'

Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1325	dry	544	3.9	N		0	0.5	S	red silty sand
1326	dry	378	3.3	N		1	1'	S	red silty sand
1328	dry	326	3.0	N		2	2'	S	red silty sand
1329	dry	326	3.9	N		3	3'	S	red silty sand
1330	dry	<200	3.9	N		4	4.5'	S	red silty sand
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

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

Compliance · Engineering · Remediation

Identifier: PH06	Date: 03/06/19
Project Name: Remuda S25N 123H	RP Number: 2RP-5277
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: / Method: Pot Hole
Lat/Long: / Field Screening:	Hole Diameter: 2 ft / Total Depth: 4.5'

Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1415	dry	<200	<5	N		0	0.5'	S	red silty sand
1416	dry	<200	<5	N		1	1.5'	S	red silty sand
1417	dry	<200	<5	N		2	2'	S	red silty sand
1419	dry	<200	<5	N		3	3'	S	red silty sand
1420	dry	378	<5	N		4	4.5'	S	red silty sand
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

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

Identifier: PH07	Date: 03/06/19
Project Name: Remuda S25N 123H	RP Number: 2RP-5277
Logged By:	Method: Pot Hole
Hole Diameter: 2 ft	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1425	dry	<200	<5	N		0	0.5'	S	red silty sand
1427	dry	<200	<5	N		1	1.0'	S	red silty sand
1429	dry	<200	<5	N		2	2.5'	S	red silty sand
1430	dry	237	<5	N		3 4	4.5'	S	red silty sand
						5 6 7 8 9 10 11 12			

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

Identifier: PH08	Date: 03/06/19
Project Name: Remuda S25N 123H	RP Number: 2RP-5277
Logged By:	Method: Pot Hole
Hole Diameter: 2 ft	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1440	dry	200	<5	N		0	0.5'	S	red silty sand
1450	dry	200	<5	N		1 2	2.5'	S	red silty sand
1455	dry	237	<5	N		3 4	4.5'	S	red silty sand
						5 6 7 8 9 10 11 12			

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

Identifier: PH09	Date: 03/06/19
Project Name: Remuda S25N 123H	RP Number: 2RP-5277
Logged By:	Method: Pot Hole
Hole Diameter: 2 ft	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening:

Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1540	dry	237	<5	N		0	0.5'	S	silty sand
1545	dry	<200	<5	N		1 2	2.5'	S	silty sand
1550	dry	200	<5	N		3 4	4.5'	S	silty sand
						5 6 7 8 9 10 11 12			

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

Compliance · Engineering · Remediation

Identifier: PH10	Date: 03/06/19
Project Name: Remuda S25N 123H	RP Number: 2RP-5277
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: / Method: Pot Hole
Lat/Long: / Field Screening:	Hole Diameter: 2 ft / Total Depth: 2.0'

Comments:

	Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
1555	dry	544	<5	N		0	0.5'	S	Caliche
1557	dry	378	<5	N		1	1.0'	S	red sand
1559	dry	<200	<5	N		2	2.0'	S	red sand
						3			
						4			
						5			
						6			
						7			
						8			
						9			
						10			
						11			
						12			

ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS

Analytical Report 617156

for

LT Environmental, Inc.

Project Manager: Adrian Baker

Remuda South 25 State 123H

13-MAR-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), 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 (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
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), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

13-MAR-19

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

Reference: XENCO Report No(s): **617156**
Remuda South 25 State 123H
Project Address: Delaware Basin

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) 617156. 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. 617156 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

Sample Cross Reference 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	03-06-19 11:15	1 ft	617156-001
PH01A	S	03-06-19 11:20	2 ft	617156-002
PH02	S	03-06-19 11:30	1 ft	617156-003
PH02A	S	03-06-19 11:40	2.3 ft	617156-004
PH03	S	03-06-19 12:00	1 ft	617156-005
PH03A	S	03-06-19 12:05	2 ft	617156-006
PH04	S	03-06-19 13:25	0.5 ft	617156-007
PH04A	S	03-06-19 13:30	4.5 ft	617156-008
PH05	S	03-06-19 14:15	0.5 ft	617156-009
PH05A	S	03-06-19 14:20	4.5 ft	617156-010
PH06	S	03-06-19 14:25	0.5 ft	617156-011
PH06A	S	03-06-19 14:30	4.5 ft	617156-012
PH07	S	03-06-19 14:40	0.5 ft	617156-013
PH07A	S	03-06-19 14:55	4.5 ft	617156-014
PH08	S	03-06-19 15:40	0.5 ft	617156-015
PH08A	S	03-06-19 15:50	4.5 ft	617156-016
PH09	S	03-06-19 16:00	0.5 ft	617156-017
PH09A	S	03-06-19 16:10	2 ft	617156-018
PH10	S	03-06-19 16:45	0.5 ft	617156-019
PH10A	S	03-06-19 16:50	1.5 ft	617156-020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3081802 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.
Samples affected are: 617156-001,617156-013,617156-007,617156-003.

Certificate of Analysis Summary 617156

LT Environmental, Inc., Arvada, CO

Project Name: Remuda South 25 State 123H

Project Id:

Contact: Adrian Baker

Project Location: Delaware Basin

Date Received in Lab: Mon Mar-11-19 07:40 am

Report Date: 13-MAR-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	617156-001		617156-002		617156-003		617156-004		617156-005		617156-006	
	Field Id:	PH01		PH01A		PH02		PH02A		PH03		PH03A	
	Depth:	1- ft		2- ft		1- ft		2.3- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-06-19 11:15		Mar-06-19 11:20		Mar-06-19 11:30		Mar-06-19 11:40		Mar-06-19 12:00		Mar-06-19 12:05	
BTEX by EPA 8021B	***Extracted:***	Mar-11-19 09:00		Mar-11-19 09:00		Mar-11-19 09:00		Mar-11-19 09:00		Mar-11-19 09:00		Mar-11-19 09:00	
	Analyzed:	Mar-11-19 18:51		Mar-11-19 19:10		Mar-11-19 19:29		Mar-11-19 19:48		Mar-11-19 20:07		Mar-11-19 20:26	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Toluene		<0.00200	0.00200	<0.00200	0.00200	0.00392	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	0.00438	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
m,p-Xylenes		<0.00400	0.00400	<0.00401	0.00401	0.0101	0.00402	<0.00398	0.00398	<0.00399	0.00399	<0.00404	0.00404
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	0.00321	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	0.0133	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	0.0216	0.00201	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202
Inorganic Anions by EPA 300	***Extracted:***	Mar-11-19 11:50		Mar-11-19 11:50		Mar-11-19 11:50		Mar-11-19 11:50		Mar-11-19 11:50		Mar-11-19 11:50	
	Analyzed:	Mar-11-19 17:56		Mar-11-19 18:07		Mar-11-19 17:24		Mar-11-19 18:17		Mar-11-19 18:28		Mar-11-19 19:00	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		281	25.0	186	24.9	70.3	4.98	379	4.98	260	5.00	150	24.8
TPH by SW8015 Mod	***Extracted:***	Mar-11-19 10:00		Mar-11-19 10:00		Mar-11-19 10:00		Mar-11-19 10:00		Mar-11-19 10:00		Mar-11-19 10:00	
	Analyzed:	Mar-11-19 11:45		Mar-11-19 12:44		Mar-11-19 13:04		Mar-11-19 13:23		Mar-11-19 13:43		Mar-11-19 14:02	
	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	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<14.9	14.9	<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	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 617156

LT Environmental, Inc., Arvada, CO

Project Name: Remuda South 25 State 123H

Project Id:

Contact: Adrian Baker

Project Location: Delaware Basin

Date Received in Lab: Mon Mar-11-19 07:40 am

Report Date: 13-MAR-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	617156-007		617156-008		617156-009		617156-010		617156-011		617156-012	
	Field Id:	PH04		PH04A		PH05		PH05A		PH06		PH06A	
	Depth:	0.5- ft		4.5- ft		0.5- ft		4.5- ft		0.5- ft		4.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-06-19 13:25		Mar-06-19 13:30		Mar-06-19 14:15		Mar-06-19 14:20		Mar-06-19 14:25		Mar-06-19 14:30	
BTEX by EPA 8021B	***Extracted:***	Mar-11-19 09:00		Mar-11-19 09:00		Mar-11-19 09:00		Mar-11-19 09:00		Mar-11-19 09:00		Mar-11-19 09:00	
	Analyzed:	Mar-11-19 20:45		Mar-11-19 21:04		Mar-11-19 21:23		Mar-11-19 21:42		Mar-11-19 22:56		Mar-11-19 23:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00400	0.00400	<0.00398	0.00398	<0.00402	0.00402	<0.00401	0.00401	<0.00399	0.00399	<0.00399	0.00399
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Inorganic Anions by EPA 300	***Extracted:***	Mar-11-19 11:50		Mar-11-19 11:50		Mar-11-19 11:50		Mar-11-19 11:50		Mar-11-19 11:50		Mar-11-19 11:50	
	Analyzed:	Mar-11-19 19:11		Mar-11-19 19:21		Mar-11-19 19:32		Mar-11-19 19:42		Mar-11-19 19:53		Mar-11-19 20:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		467	4.95	16.2	4.99	78.7	4.96	14.4	4.96	122	4.96	24.9	5.00
TPH by SW8015 Mod	***Extracted:***	Mar-11-19 10:00		Mar-11-19 10:00		Mar-11-19 10:00		Mar-11-19 10:00		Mar-11-19 10:00		Mar-11-19 10:00	
	Analyzed:	Mar-11-19 14:22		Mar-11-19 14:42		Mar-11-19 15:01		Mar-11-19 15:21		Mar-11-19 16:20		Mar-11-19 16:40	
	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	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<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	<15.0	15.0	<15.0	15.0
Total TPH		<14.9	14.9	<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 617156

LT Environmental, Inc., Arvada, CO

Project Name: Remuda South 25 State 123H

Project Id:

Contact: Adrian Baker

Project Location: Delaware Basin

Date Received in Lab: Mon Mar-11-19 07:40 am

Report Date: 13-MAR-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	617156-013		617156-014		617156-015		617156-016		617156-017		617156-018	
	Field Id:	PH07		PH07A		PH08		PH08A		PH09		PH09A	
	Depth:	0.5- ft		4.5- ft		0.5- ft		4.5- ft		0.5- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-06-19 14:40		Mar-06-19 14:55		Mar-06-19 15:40		Mar-06-19 15:50		Mar-06-19 16:00		Mar-06-19 16:10	
BTEX by EPA 8021B	***Extracted:***	Mar-11-19 09:00		Mar-11-19 09:00		Mar-11-19 09:00		Mar-11-19 09:00		Mar-11-19 09:00		Mar-11-19 09:00	
	Analyzed:	Mar-11-19 23:34		Mar-11-19 23:53		Mar-12-19 00:12		Mar-12-19 00:31		Mar-12-19 00:50		Mar-12-19 01:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201
Toluene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201
Ethylbenzene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201
m,p-Xylenes		<0.00399	0.00399	<0.00403	0.00403	<0.00398	0.00398	<0.00402	0.00402	<0.00398	0.00398	<0.00402	0.00402
o-Xylene		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201
Total Xylenes		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201
Total BTEX		<0.00200	0.00200	<0.00202	0.00202	<0.00199	0.00199	<0.00201	0.00201	<0.00199	0.00199	<0.00201	0.00201
Inorganic Anions by EPA 300	***Extracted:***	Mar-11-19 11:50		Mar-11-19 11:50		Mar-11-19 11:50		Mar-11-19 11:50		Mar-11-19 11:50		Mar-11-19 11:50	
	Analyzed:	Mar-11-19 20:36		Mar-11-19 21:08		Mar-11-19 21:18		Mar-11-19 21:29		Mar-11-19 21:40		Mar-11-19 21:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		19.7	4.96	170	4.97	195	24.8	221	4.99	466	25.0	115	49.9
TPH by SW8015 Mod	***Extracted:***	Mar-11-19 10:00		Mar-11-19 10:00		Mar-11-19 10:00		Mar-11-19 10:00		Mar-11-19 10:00		Mar-11-19 10:00	
	Analyzed:	Mar-11-19 17:00		Mar-11-19 17:20		Mar-11-19 17:40		Mar-11-19 18:00		Mar-11-19 18:20		Mar-11-19 18:40	
	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	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<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	<14.9	14.9	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 617156

LT Environmental, Inc., Arvada, CO

Project Name: Remuda South 25 State 123H

Project Id:
Contact: Adrian Baker
Project Location: Delaware Basin

Date Received in Lab: Mon Mar-11-19 07:40 am
Report Date: 13-MAR-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	617156-019		617156-020					
	Field Id:	PH10		PH10A					
	Depth:	0.5- ft		1.5- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Mar-06-19 16:45		Mar-06-19 16:50					
BTEX by EPA 8021B	***Extracted:***	Mar-11-19 09:00		Mar-11-19 09:00					
	Analyzed:	Mar-12-19 01:28		Mar-12-19 01:47					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00200	0.00200				
Toluene		<0.00200	0.00200	<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200				
m,p-Xylenes		<0.00400	0.00400	<0.00399	0.00399				
o-Xylene		<0.00200	0.00200	<0.00200	0.00200				
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200				
Total BTEX		<0.00200	0.00200	<0.00200	0.00200				
Inorganic Anions by EPA 300	***Extracted:***	Mar-11-19 11:50		Mar-11-19 11:50					
	Analyzed:	Mar-11-19 22:01		Mar-11-19 22:11					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		77.3	5.00	343	5.00				
TPH by SW8015 Mod	***Extracted:***	Mar-11-19 10:00		Mar-11-19 10:00					
	Analyzed:	Mar-11-19 19:00		Mar-11-19 19:20					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0				
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0				
Motor Oil Range Hydrocarbons (MRO)		<15.0	15.0	<15.0	15.0				
Total TPH		<15.0	15.0	<15.0	15.0				

Jessica Kramer
Project Assistant

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-001	Date Collected:	03.06.19 11.15	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**281**	25.0	mg/kg	03.11.19 17.56		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 11.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 11.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 11.45	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 11.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	03.11.19 11.45	
o-Terphenyl	84-15-1	94	%	70-135	03.11.19 11.45	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-001	Date Collected:	03.06.19 11.15	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.11.19 18.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.11.19 18.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.11.19 18.51	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.11.19 18.51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.11.19 18.51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.11.19 18.51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.11.19 18.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	131	%	70-130	03.11.19 18.51	**
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.11.19 18.51	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-002	Date Collected:	03.06.19 11.20	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**186**	24.9	mg/kg	03.11.19 18.07		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	03.11.19 12.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	03.11.19 12.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	03.11.19 12.44	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	03.11.19 12.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.11.19 12.44	
o-Terphenyl	84-15-1	93	%	70-135	03.11.19 12.44	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-002	Date Collected:	03.06.19 11.20	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.11.19 19.10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.11.19 19.10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.11.19 19.10	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.11.19 19.10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.11.19 19.10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.11.19 19.10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.11.19 19.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	03.11.19 19.10	
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.11.19 19.10	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-003	Date Collected:	03.06.19 11.30	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**70.3**	4.98	mg/kg	03.11.19 17.24		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 13.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 13.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 13.04	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 13.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.11.19 13.04	
o-Terphenyl	84-15-1	90	%	70-135	03.11.19 13.04	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-003	Date Collected:	03.06.19 11.30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.11.19 19.29	U	1
Toluene	108-88-3	**0.00392**	0.00201	mg/kg	03.11.19 19.29		1
Ethylbenzene	100-41-4	**0.00438**	0.00201	mg/kg	03.11.19 19.29		1
m,p-Xylenes	179601-23-1	**0.0101**	0.00402	mg/kg	03.11.19 19.29		1
o-Xylene	95-47-6	**0.00321**	0.00201	mg/kg	03.11.19 19.29		1
Total Xylenes	1330-20-7	**0.0133**	0.00201	mg/kg	03.11.19 19.29		1
Total BTEX		**0.0216**	0.00201	mg/kg	03.11.19 19.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	127	%	70-130	03.11.19 19.29	
4-Bromofluorobenzene	460-00-4	189	%	70-130	03.11.19 19.29	**

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-004	Date Collected:	03.06.19 11.40	Sample Depth:	2.3 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**379**	4.98	mg/kg	03.11.19 18.17		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 13.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 13.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 13.23	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 13.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.11.19 13.23	
o-Terphenyl	84-15-1	94	%	70-135	03.11.19 13.23	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-004	Date Collected:	03.06.19 11.40	Sample Depth:	2.3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.11.19 19.48	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.11.19 19.48	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.11.19 19.48	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.11.19 19.48	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.11.19 19.48	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.11.19 19.48	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.11.19 19.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	03.11.19 19.48	
4-Bromofluorobenzene	460-00-4	128	%	70-130	03.11.19 19.48	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-005	Date Collected:	03.06.19 12.00	Sample Depth:	1 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**260**	5.00	mg/kg	03.11.19 18.28		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 13.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 13.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 13.43	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 13.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	03.11.19 13.43	
o-Terphenyl	84-15-1	93	%	70-135	03.11.19 13.43	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-005	Date Collected:	03.06.19 12.00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.11.19 20.07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.11.19 20.07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.11.19 20.07	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.11.19 20.07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.11.19 20.07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.11.19 20.07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.11.19 20.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	126	%	70-130	03.11.19 20.07	
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.11.19 20.07	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-006	Date Collected:	03.06.19 12.05	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**150**	24.8	mg/kg	03.11.19 19.00		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 14.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 14.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 14.02	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 14.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	03.11.19 14.02	
o-Terphenyl	84-15-1	95	%	70-135	03.11.19 14.02	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-006	Date Collected:	03.06.19 12.05	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.11.19 20.26	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.11.19 20.26	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.11.19 20.26	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	03.11.19 20.26	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.11.19 20.26	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.11.19 20.26	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.11.19 20.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	03.11.19 20.26	
4-Bromofluorobenzene	460-00-4	110	%	70-130	03.11.19 20.26	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-007	Date Collected:	03.06.19 13.25	Sample Depth:	0.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**467**	4.95	mg/kg	03.11.19 19.11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	03.11.19 14.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	03.11.19 14.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	03.11.19 14.22	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	03.11.19 14.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	03.11.19 14.22	
o-Terphenyl	84-15-1	91	%	70-135	03.11.19 14.22	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-007	Date Collected:	03.06.19 13.25	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.11.19 20.45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.11.19 20.45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.11.19 20.45	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.11.19 20.45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.11.19 20.45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.11.19 20.45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.11.19 20.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.11.19 20.45	
4-Bromofluorobenzene	460-00-4	131	%	70-130	03.11.19 20.45	**

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-008	Date Collected:	03.06.19 13.30	Sample Depth:	4.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.2**	4.99	mg/kg	03.11.19 19.21		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	03.11.19 14.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	03.11.19 14.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	03.11.19 14.42	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	03.11.19 14.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	03.11.19 14.42	
o-Terphenyl	84-15-1	91	%	70-135	03.11.19 14.42	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-008	Date Collected:	03.06.19 13.30	Sample Depth:	4.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.11.19 21.04	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.11.19 21.04	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.11.19 21.04	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.11.19 21.04	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.11.19 21.04	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.11.19 21.04	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.11.19 21.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	03.11.19 21.04	
4-Bromofluorobenzene	460-00-4	127	%	70-130	03.11.19 21.04	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-009	Date Collected:	03.06.19 14.15	Sample Depth:	0.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**78.7**	4.96	mg/kg	03.11.19 19.32		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 15.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 15.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 15.01	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 15.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	03.11.19 15.01	
o-Terphenyl	84-15-1	93	%	70-135	03.11.19 15.01	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-009	Date Collected:	03.06.19 14.15	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.11.19 21.23	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.11.19 21.23	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.11.19 21.23	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.11.19 21.23	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.11.19 21.23	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.11.19 21.23	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.11.19 21.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	130	%	70-130	03.11.19 21.23	
1,4-Difluorobenzene	540-36-3	99	%	70-130	03.11.19 21.23	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-010	Date Collected:	03.06.19 14.20	Sample Depth:	4.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.4**	4.96	mg/kg	03.11.19 19.42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 15.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 15.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 15.21	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 15.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	03.11.19 15.21	
o-Terphenyl	84-15-1	106	%	70-135	03.11.19 15.21	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH05A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-010	Date Collected:	03.06.19 14.20	Sample Depth:	4.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.11.19 21.42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.11.19 21.42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.11.19 21.42	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.11.19 21.42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.11.19 21.42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.11.19 21.42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.11.19 21.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	125	%	70-130	03.11.19 21.42	
1,4-Difluorobenzene	540-36-3	103	%	70-130	03.11.19 21.42	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-011	Date Collected:	03.06.19 14.25	Sample Depth:	0.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**122**	4.96	mg/kg	03.11.19 19.53		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 16.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 16.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 16.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 16.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	03.11.19 16.20	
o-Terphenyl	84-15-1	89	%	70-135	03.11.19 16.20	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH06**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-011	Date Collected:	03.06.19 14.25	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.11.19 22.56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.11.19 22.56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.11.19 22.56	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.11.19 22.56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.11.19 22.56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.11.19 22.56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.11.19 22.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	03.11.19 22.56	
4-Bromofluorobenzene	460-00-4	122	%	70-130	03.11.19 22.56	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-012	Date Collected:	03.06.19 14.30	Sample Depth:	4.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**24.9**	5.00	mg/kg	03.11.19 20.25		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 16.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 16.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 16.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 16.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	03.11.19 16.40	
o-Terphenyl	84-15-1	87	%	70-135	03.11.19 16.40	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH06A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-012	Date Collected:	03.06.19 14.30	Sample Depth:	4.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.11.19 23.15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.11.19 23.15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.11.19 23.15	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.11.19 23.15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.11.19 23.15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.11.19 23.15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.11.19 23.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	03.11.19 23.15	
4-Bromofluorobenzene	460-00-4	126	%	70-130	03.11.19 23.15	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH07**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-013	Date Collected:	03.06.19 14.40	Sample Depth:	0.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**19.7**	4.96	mg/kg	03.11.19 20.36		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 17.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 17.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 17.00	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 17.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.11.19 17.00	
o-Terphenyl	84-15-1	91	%	70-135	03.11.19 17.00	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH07**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-013	Date Collected:	03.06.19 14.40	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.11.19 23.34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.11.19 23.34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.11.19 23.34	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.11.19 23.34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.11.19 23.34	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.11.19 23.34	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.11.19 23.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	134	%	70-130	03.11.19 23.34	**
1,4-Difluorobenzene	540-36-3	103	%	70-130	03.11.19 23.34	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH07A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-014	Date Collected:	03.06.19 14.55	Sample Depth:	4.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**170**	4.97	mg/kg	03.11.19 21.08		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 17.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 17.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 17.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 17.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	03.11.19 17.20	
o-Terphenyl	84-15-1	91	%	70-135	03.11.19 17.20	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH07A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-014	Date Collected:	03.06.19 14.55	Sample Depth:	4.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.11.19 23.53	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.11.19 23.53	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.11.19 23.53	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.11.19 23.53	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.11.19 23.53	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.11.19 23.53	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.11.19 23.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	124	%	70-130	03.11.19 23.53	
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.11.19 23.53	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH08**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-015	Date Collected:	03.06.19 15.40	Sample Depth:	0.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**195**	24.8	mg/kg	03.11.19 21.18		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 17.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 17.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 17.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 17.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	03.11.19 17.40	
o-Terphenyl	84-15-1	90	%	70-135	03.11.19 17.40	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH08**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-015	Date Collected:	03.06.19 15.40	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.12.19 00.12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.12.19 00.12	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.12.19 00.12	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.12.19 00.12	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.12.19 00.12	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.12.19 00.12	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.12.19 00.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.12.19 00.12	
4-Bromofluorobenzene	460-00-4	108	%	70-130	03.12.19 00.12	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH08A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-016	Date Collected:	03.06.19 15.50	Sample Depth:	4.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**221**	4.99	mg/kg	03.11.19 21.29		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	03.11.19 18.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	03.11.19 18.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	03.11.19 18.00	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	03.11.19 18.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.11.19 18.00	
o-Terphenyl	84-15-1	91	%	70-135	03.11.19 18.00	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH08A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-016	Date Collected:	03.06.19 15.50	Sample Depth:	4.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.12.19 00.31	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.12.19 00.31	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.12.19 00.31	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.12.19 00.31	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.12.19 00.31	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.12.19 00.31	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.12.19 00.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	128	%	70-130	03.12.19 00.31	
1,4-Difluorobenzene	540-36-3	101	%	70-130	03.12.19 00.31	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH09**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-017	Date Collected:	03.06.19 16.00	Sample Depth:	0.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**466**	25.0	mg/kg	03.11.19 21.40		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 18.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 18.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 18.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 18.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.11.19 18.20	
o-Terphenyl	84-15-1	92	%	70-135	03.11.19 18.20	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH09**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-017	Date Collected:	03.06.19 16.00	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.12.19 00.50	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.12.19 00.50	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.12.19 00.50	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.12.19 00.50	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.12.19 00.50	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.12.19 00.50	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.12.19 00.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	03.12.19 00.50	
4-Bromofluorobenzene	460-00-4	123	%	70-130	03.12.19 00.50	

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH09A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-018	Date Collected:	03.06.19 16.10	Sample Depth:	2 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**115**	49.9	mg/kg	03.11.19 21.50		10

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 18.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 18.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 18.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 18.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	03.11.19 18.40	
o-Terphenyl	84-15-1	89	%	70-135	03.11.19 18.40	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH09A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-018	Date Collected:	03.06.19 16.10	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.12.19 01.09	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.12.19 01.09	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.12.19 01.09	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.12.19 01.09	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.12.19 01.09	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.12.19 01.09	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.12.19 01.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	03.12.19 01.09	
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.12.19 01.09	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH10**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-019	Date Collected:	03.06.19 16.45	Sample Depth:	0.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**77.3**	5.00	mg/kg	03.11.19 22.01		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 19.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 19.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 19.00	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 19.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	03.11.19 19.00	
o-Terphenyl	84-15-1	89	%	70-135	03.11.19 19.00	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH10**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-019	Date Collected:	03.06.19 16.45	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.12.19 01.28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.12.19 01.28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.12.19 01.28	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.12.19 01.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.12.19 01.28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.12.19 01.28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.12.19 01.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	124	%	70-130	03.12.19 01.28	
1,4-Difluorobenzene	540-36-3	104	%	70-130	03.12.19 01.28	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH10A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-020	Date Collected:	03.06.19 16.50	Sample Depth:	1.5 ft

Analytical Method:	Inorganic Anions by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	03.11.19 11.50	Basis:	Wet Weight
Seq Number:	3081882				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**343**	5.00	mg/kg	03.11.19 22.11		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	TX1005P
Tech:	ARM			% Moisture:	
Analyst:	ARM	Date Prep:	03.11.19 10.00	Basis:	Wet Weight
Seq Number:	3081805				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.11.19 19.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	03.11.19 19.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.11.19 19.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	03.11.19 19.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.11.19 19.20	
o-Terphenyl	84-15-1	93	%	70-135	03.11.19 19.20	

Certificate of Analytical Results 617156

LT Environmental, Inc., Arvada, CO

Remuda South 25 State 123H

Sample Id:	**PH10A**	Matrix:	Soil	Date Received:	03.11.19 07.40
Lab Sample Id:	617156-020	Date Collected:	03.06.19 16.50	Sample Depth:	1.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	SCM			% Moisture:	
Analyst:	SCM	Date Prep:	03.11.19 09.00	Basis:	Wet Weight
Seq Number:	3081802				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.12.19 01.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.12.19 01.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.12.19 01.47	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.12.19 01.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.12.19 01.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.12.19 01.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.12.19 01.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	03.12.19 01.47	
1,4-Difluorobenzene	540-36-3	109	%	70-130	03.12.19 01.47	

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 617156

LT Environmental, Inc.

Remuda South 25 State 123H

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3081882 Matrix: Solid Date Prep: 03.11.19
MB Sample Id: 7673338-1-BLK LCS Sample Id: 7673338-1-BKS LCSD Sample Id: 7673338-1-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	265	106	90-110	3	20	mg/kg	03.11.19 17:03	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3081882 Matrix: Soil Date Prep: 03.11.19
Parent Sample Id: 617156-003 MS Sample Id: 617156-003 S MSD Sample Id: 617156-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	70.3	249	327	103	327	103	90-110	0	20	mg/kg	03.11.19 17:35	

Analytical Method: **Inorganic Anions by EPA 300** Prep Method: E300P
Seq Number: 3081882 Matrix: Soil Date Prep: 03.11.19
Parent Sample Id: 617156-011 MS Sample Id: 617156-011 S MSD Sample Id: 617156-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	122	248	386	106	384	106	90-110	1	20	mg/kg	03.11.19 20:04	

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3081805 Matrix: Solid Date Prep: 03.11.19
MB Sample Id: 7673377-1-BLK LCS Sample Id: 7673377-1-BKS LCSD Sample Id: 7673377-1-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	983	98	70-135	2	20	mg/kg	03.11.19 11:06	
Diesel Range Organics (DRO)	<8.13	1000	977	98	986	99	70-135	1	20	mg/kg	03.11.19 11:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		125		128		70-135	%	03.11.19 11:06
o-Terphenyl	100		113		111		70-135	%	03.11.19 11:06

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

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

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

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

QC Summary 617156

LT Environmental, Inc.

Remuda South 25 State 123H

Analytical Method: **TPH by SW8015 Mod** Prep Method: TX1005P
Seq Number: 3081805 Matrix: Soil Date Prep: 03.11.19
Parent Sample Id: 617156-001 MS Sample Id: 617156-001 S MSD Sample Id: 617156-001 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	998	979	98	972	97	70-135	1	20	mg/kg	03.11.19 12:05	
Diesel Range Organics (DRO)	8.14	998	981	97	979	97	70-135	0	20	mg/kg	03.11.19 12:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		120		70-135	%	03.11.19 12:05
o-Terphenyl	104		98		70-135	%	03.11.19 12:05

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3081802 Matrix: Solid Date Prep: 03.11.19
MB Sample Id: 7673383-1-BLK LCS Sample Id: 7673383-1-BKS LCSD Sample Id: 7673383-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0996	0.103	103	0.104	104	70-130	1	35	mg/kg	03.11.19 16:59	
Toluene	<0.000454	0.0996	0.0924	93	0.0935	94	70-130	1	35	mg/kg	03.11.19 16:59	
Ethylbenzene	<0.000563	0.0996	0.0894	90	0.0898	90	70-130	0	35	mg/kg	03.11.19 16:59	
m,p-Xylenes	<0.00101	0.199	0.179	90	0.180	90	70-130	1	35	mg/kg	03.11.19 16:59	
o-Xylene	<0.000343	0.0996	0.0879	88	0.0883	88	70-130	0	35	mg/kg	03.11.19 16:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		103		102		70-130	%	03.11.19 16:59
4-Bromofluorobenzene	98		93		92		70-130	%	03.11.19 16:59

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B
Seq Number: 3081802 Matrix: Soil Date Prep: 03.11.19
Parent Sample Id: 617156-001 MS Sample Id: 617156-001 S MSD Sample Id: 617156-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.000470	0.101	0.0954	94	0.0958	95	70-130	0	35	mg/kg	03.11.19 17:37	
Toluene	0.000740	0.101	0.0856	84	0.0844	84	70-130	1	35	mg/kg	03.11.19 17:37	
Ethylbenzene	<0.000569	0.101	0.0810	80	0.0781	78	70-130	4	35	mg/kg	03.11.19 17:37	
m,p-Xylenes	0.00157	0.202	0.164	80	0.157	78	70-130	4	35	mg/kg	03.11.19 17:37	
o-Xylene	0.000840	0.101	0.0801	78	0.0770	76	70-130	4	35	mg/kg	03.11.19 17:37	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		105		70-130	%	03.11.19 17:37
4-Bromofluorobenzene	99		100		70-130	%	03.11.19 17:37

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

Chain of Custody

Work Order No: 617156

XENCO LABORATORIES

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

www.xenco.com Page 1 of 2

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.704.5178	Email: ~~bbelill@ltenv.com~~ abyers@ltenv.com	

Work Order Comments

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

Project Name:	Remuda South 25 State 123H	Turn Around	
Project Number:		Routine ☐	
P.O. Number:	2RP 5277	Rush: same day	
Sampler's Name:	~~Benjamin Belill~~ Anna Byers	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	4.1/4.0	Thermometer ID	R8	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.1	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH01	S	3/6/19	1115	1'	1			
PH01 A			1120	2'	1			
PH02			1130	1'	1			
PH02 A			1140	2.3'	1			
PH03			1200	1'	1			
PH03 A			1205	2'	1			
PH04			1325	0.5'	1			
PH04 A			1330	4.5'	1			
PH05			1415	0.5'	1			
PH05 A	↓	↓	1420	4.5	1			

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Anna Byers		3/8/19 @ 1500	2			3/11/19 0740
3				4			
5				6			

Revised Date 051418 Rev. 2018.1

Final 1.000

Page 52 of 55

Chain of Custody

XENCO LABORATORIES

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

Work Order No: 617156

www.xenco.com Page 2 of 2

Project Manager:	Adrian Baker	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.704.5178	Email: ~~bbelill@ltenv.com~~ abyers@ltenv.com	

Work Order Comments

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

Project Name:	Remuda South 25 State 123H	Turn Around	
Project Number:		Routine ☐	
P.O. Number:	2RP5277	Rush: same day	
Sampler's Name:	~~Benjamin Belill~~ Anna Byers	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	4.1/4.0	Thermometer ID	R8
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.1
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH06	S	3/6/19	1425	0.5'	1			
PH06 A			1430	4.5'	1			
PH07			1440	0.5'	1			
PH07 A			1455	4.5'	1			
PH08			1540	0.5'	1			
PH08 A			1550	4.5'	1			
PH09			1600	0.5'	1			
PH09 A			1610	2'	1			
PH10			1645	0.5'	1			
PH10 A	↓	↓	1650	1.5'	1			

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Anna Byers		3/8/19 @ 1500	2		3/11/19 0740
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Final 1.000

Page 53 of 55

ORIGIN ID:CAOA (575) 887-6245
XENCO SATURDAY
PAC N MAIL
910 W PIERCE ST
CARLSBAD, NM 88220
UNITED STATES US

SHIP DATE: 08MAR19
ACTWGT: 39.00 LB
CAD: 101813706/INET4100
DIMS: 22x15x16 IN

BILL RECIPIENT

TO **HOLD FOR XENCO**
FEDEX OFFICE PRINT & SHIP CENTER
FEDEX OFFICE PRINT & SHIP CENTER
200 W INTERSTATE 20
MIDLAND TX 79701
(806) 574-0639

REF: XENCO
INV:
PO:
DEPT:

565J1/46D3/23AD

J191619010701uv

FedEx Express

SATURDAY HOLD
PRIORITY OVERNIGHT
HLD
TRK# 0201 **7746 6118 1602**
MAFKI
TX-US **LBB**
41 MAFA

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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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 03/11/2019 07:40:00 AM

Work Order #: 617156

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)?	4
#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: 03/11/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 03/11/2019

Jessica Kramer

East facing view of the release area on the well pad.

Project: 012918197	XTO Energy, Inc. Remuda South 25 State 123H Well Pad/Remuda 100 Battery	LTE Advancing Opportunity
February 6, 2019	Photographic Log	

South facing view of the release area north of the well pad.

Project: 012918197	XTO Energy, Inc. Remuda South 25 State 123H Well Pad/Remuda 100 Battery	LTE Advancing Opportunity
February 6, 2019	Photographic Log	