

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	NRM2026852563
District RP	
Facility ID	
Application ID	

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 32.57996 Longitude -103.32467
(NAD 83 in decimal degrees to 5 decimal places)

Site Name EMSU B Satellite Battery 13	Site Type Tank Battery
Date Release Discovered 9/10/2020	API# (if applicable)

Unit Letter	Section	Township	Range	County
B	14	20S	36E	Lea

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

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) 0.88	Volume Recovered (bbls) 0.75
☒ Produced Water	Volume Released (bbls) 57.68	Volume Recovered (bbls) 49.25
	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 failed valve allowed fluid to fill tank causing fluid to release from thief hatch. A third party contractor will be retained for remediation activities.

Form C-141

State of New Mexico
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The release was greater than 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, by Adrian Baker to 'Bratcher, Mike, EMNRD'; 'Hamlet, Robert, EMNRD'; 'Venegas, Victoria, EMNRD'; 'Griswold, Jim, EMNRD' on Thursday, September 10, 2020 4:57 PM via email.	

Initial Response

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

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

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

N/A

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

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

Printed Name: Kyle Littrell

Title: SH&E Supervisor

Signature: 

Date: 9-18-20

email: Kyle.Littrell@xtoenergy.com

Telephone: 432-221-7331

OCD Only

Received by: Ramona Marcus

Date: 9/24/2020

State of New Mexico
Oil Conservation Division

Incident ID	NRM2026852563
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Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u><50</u> (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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor
Signature:  Date: 11/2/20
email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: Cristina Eads Date: 11/03/2020

State of New Mexico
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Closure

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

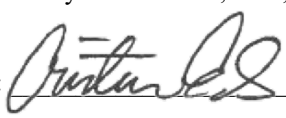
Closure Report Attachment Checklist: Each of the following items must be included in the closure report.

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

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

Printed Name: Kyle LittrellTitle: SH&E SupervisorSignature: Date: 11/2/20email: Kyle_Littrell@xtoenergy.comTelephone: 432-221-7331**OCD Only**Received by: Cristina EadsDate: 11/03/2020

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: 01/22/2021Printed Name: Cristina EadsTitle: Environmental Specialist



LT Environmental, Inc.

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

November 2, 2020

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

**RE: Closure Request
EMSU B Satellite Battery 13
Incident Number NRM2026852563
Lea County, New Mexico**

To Whom It May Concern:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing soil sampling and excavation activities at the EMSU B 13 Satellite Battery (Site) in Unit B, Section 14, Township 20 South, Range 36 East, in Lea County, New Mexico (Figure 1). The purpose of the soil sampling and excavation activities was to address impacts to soil following the release of crude oil and produced water at the Site. Based on the excavation activities and results of the soil sampling events, XTO is submitting this Closure Request, describing remediation that has occurred and requesting no further action for the release event.

RELEASE BACKGROUND

On September 10, 2020, a failed valve allowed fluid to overflow a tank causing fluid to release from the thief hatch. Approximately 0.88 barrels (bbls) of crude oil and 57.68 bbls of produced water were released. A hydrovacuum truck was dispatched to the Site and recovered 0.75 bbls of crude oil and 49.25 bbls of produced water. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on September 10, 2020 and subsequently submitted a Release Notification and Corrective Action Form C-141 (Form C-141) on September 18, 2020. After review, the NMOCD assigned Incident Number NRM2026852563.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be 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 United States Geological Survey (USGS) well 323429103193001 located approximately 1,724 feet south of the Site. The water well has a depth to groundwater of 39 feet and total depth of the well is not determined. Ground surface elevation at the water well location



is 3,565 feet above mean sea level (AMSL), which is approximately 9 foot lower in elevation than the Site. The referenced well records are included in Attachment 1.

During January 2020, in an effort to confirm depth to water in the area, a borehole (BH09) was advanced to a depth of 50 feet bgs via truck-mounted sonic drill rig. The borehole was located approximately 1,342 feet northwest of the Site. The location of borehole BH09 is provided on Figure 1. An LTE geologist logged and described soils continuously. The borehole lithologic/soil sampling log is included in Attachment 1. Borehole BH09 was drilled to approximately 50 feet bgs in order to confirm depth to groundwater at the Site. LTE waited more than 24 hours for the borehole to equilibrate, and then measured the static groundwater level in borehole BH09 on January 11, 2020. Depth to groundwater at the Site was determined to be 42 feet bgs. After the depth to groundwater level was measured, LTE personnel oversaw the proper abandonment of borehole BH09 utilizing hydrated bentonite chips.

The closest continuously flowing water or significant watercourse is an intermittent stream located approximately 2,735 feet south-southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is located within 500 feet of a domestic water well, permitted for livestock watering, though it is not in use. The Site is not within a 100-year floodplain or overlying a subsurface mine. The Site is located in a low potential karst area. Site receptors are depicted on Figure 1.

CLOSURE CRITERIA

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

SITE ASSESSMENT ACTIVITIES

On September 14, 2020, LTE personnel inspected the Site to evaluate the release extent. Surficial staining was observed on the caliche well pad, lease road, and adjacent pasture. LTE personnel collected five preliminary soil samples (SS01 through SS05) within the release extent from a depth of approximately 0.5 feet bgs to assess the lateral extent of soil impacts. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.



The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were shipped at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (USEPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following USEPA Method 8015M/D; and chloride following USEPA Method 300.0.

Based on laboratory analytical results for the preliminary soil samples and visual observations, delineation and excavation of impacted soil was warranted. Photographic documentation was conducted during the Site visit. A photographic log is included in Attachment 2.

EXCAVATION AND DELINEATION SOIL SAMPLING ACTIVITIES

On September 18, 2020, LTE personnel returned to the site to advance five boreholes (BH01 through BH05) at the SS01 through SS05 preliminary soil sample locations, to assess the vertical extent of soil impacts. Soil from the five boreholes was field screened utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each borehole were logged on lithologic/soil sampling logs which are included in Attachment 3. Two delineation soil samples were collected from each borehole. Delineation soil samples BH01 through BH05 were collected from the soil interval in each borehole with the highest field screening results, which ranged from a depth of 1 foot to 2 feet bgs. Delineation soil samples BH01A through BH05A were collected from the final depth of each borehole, which ranged from a depth of 2 feet to 5 feet bgs, to vertically delineate the impacted soil. The delineation soil samples were collected, handled, and analyzed as described above and submitted to Xenco in Carlsbad, New Mexico. The delineation soil sample locations are depicted on Figure 3.

From September 29 to September 30, 2020, LTE personnel were at the Site to oversee soil excavation activities as indicated by visible staining, field screening activities, and laboratory analytical results for the preliminary and delineation soil samples. To direct excavation activities, LTE screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by depositing five aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS20 were collected from the floor of the excavation at depths ranging from 1.5 feet to 4 feet bgs, and composite soil samples SW01 through SW07 were collected from the sidewalls of the excavation at depths ranging from ground surface to 4 feet bgs. The excavation soil samples were collected, handled, and analyzed as described above and submitted to Xenco in Carlsbad, New Mexico.



Laboratory analytical results for excavation floor samples FS09 through FS11 indicated that chloride concentrations exceeded the Closure Criteria, and further excavation was required. The areas around floor samples FS09 and FS10 were excavated to a depth of 2.5 feet bgs and the area around floor sample FS11 was excavated to a depth of 3 feet bgs. Subsequent composite floor samples FS09A, FS10A, and FS11A and composite sidewall samples SW06 and SW07 were collected from the newly excavated areas at depths ranging from ground surface to 3 feet bgs. The excavation soil samples were collected, handled and analyzed as described above and submitted to Xenco in Carlsbad, New Mexico. The excavation extent and excavation soil sample locations are depicted on Figure 4.

The final excavation extent measured approximately 2,601 square feet in area. A total of approximately 240 cubic yards of impacted soil were removed from the excavations. The impacted soil was transported and properly disposed of at the Sundance disposal facility located in Hobbs, New Mexico.

ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples SS01 through SS03 indicated that TPH and/or chloride concentrations exceeded the Closure Criteria. Laboratory analytical results for preliminary soil samples SS04 and SS05 indicated that benzene, BTEX, TPH and chloride concentrations were compliant with the Closure Criteria.

Laboratory analytical results for delineation soil samples BH01 through BH05, collected at depths ranging from 1 foot bgs to 2 feet bgs, indicated that chloride concentrations exceeded the Closure Criteria. Laboratory analytical results for delineation soil samples BH01A through BH05A, collected at depths ranging from 2 feet bgs to 5 feet bgs, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with Closure Criteria. Based on the laboratory analytical results for the preliminary and delineation soil samples, impacted soil was excavated.

Laboratory analytical results for excavation soil samples SW01 through SW07, FS01 through FS08, FS09A, FS10A, FS11A, and FS12 through FS20 collected from the final excavation extent, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with Closure Criteria.

Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

BACKFILL AND RESEEDING ACTIVITIES

On October 22, 2020, the excavation was backfilled with locally purchased caliche and topsoil and recontoured to match pre-existing site conditions. The pasture areas were reseeded with a Bureau of Land Management (BLM) approved seed mixture. Photographic documentation was conducted of the backfill activities, and a photographic log is included in Attachment 2.

District 1
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CLOSURE REQUEST

Initial and follow-up response efforts as a result of the September 10, 2020 crude oil and produced water release included removal of freestanding fluid by a hydrovac truck, excavation and removal of impacted soil, and collection of confirmation soil samples. Laboratory analytical results for preliminary soil samples SS01 through SS03 and delineation soil samples BH01 through BH05 indicated that TPH and/or chloride concentrations exceeded the Closure Criteria. As a result, a total of 240 cubic yards of impacted soil were excavated. Laboratory analytical results for the excavation soil samples collected from the final excavation extent, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria and not further remediation was required. XTO backfilled the excavation with material purchased locally and recontoured the Site to match pre-existing site conditions. The pasture excavation was re-seeded with an approved BLM seed mixture.

Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. As such, XTO respectfully requests no further action for Incident Number NRM2026852563.

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

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read "W. Mather".

Will Mather
Staff Environmental Scientist

A handwritten signature in black ink, appearing to read "Ashley L. Ager".

Ashley L. Ager, P.G.
Senior Geologist

cc: Kyle Littrell, XTO
Klein Ranch
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Delineation Soil Sample Locations
Figure 4	Excavation Soil Sample Locations

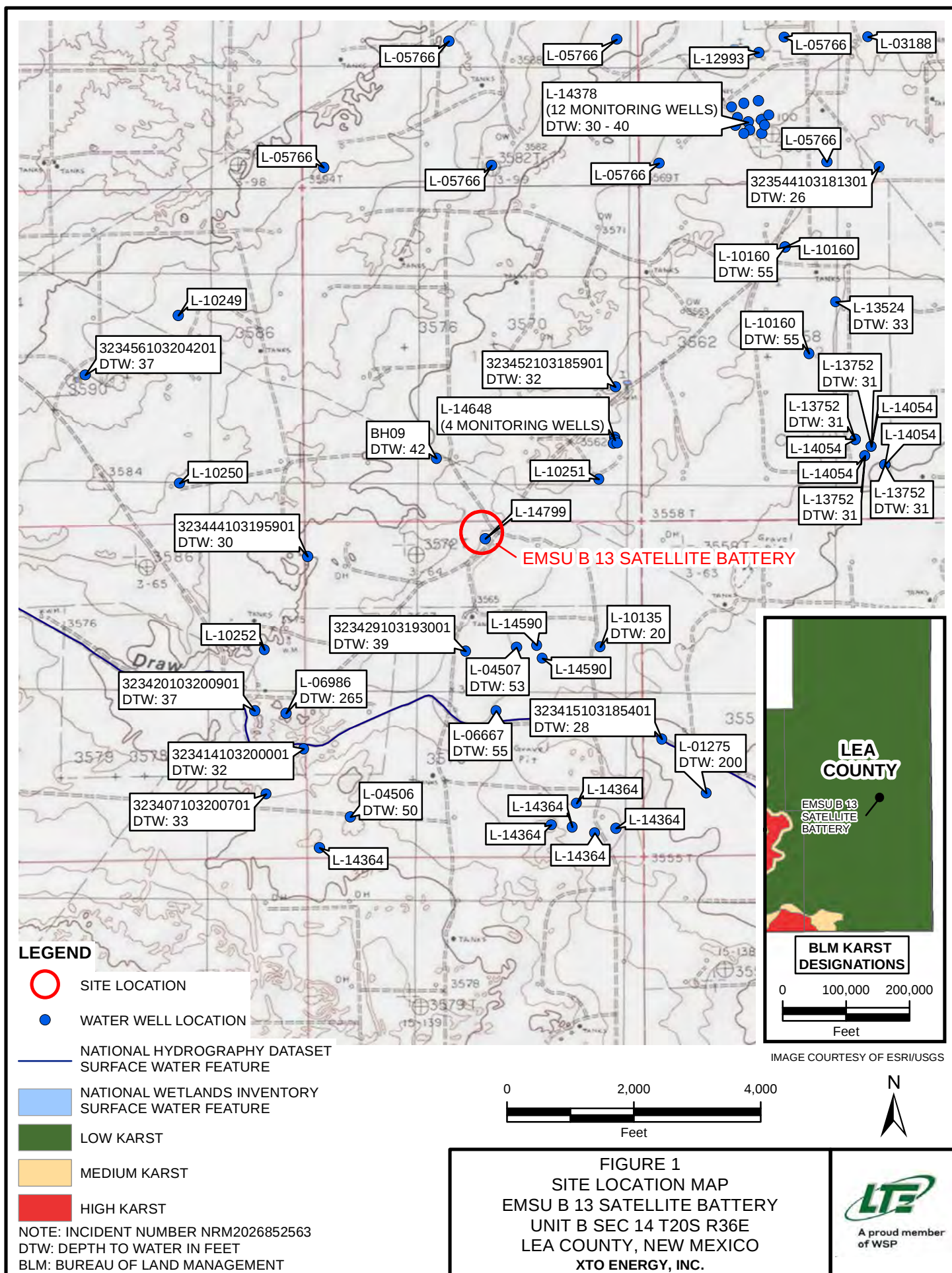


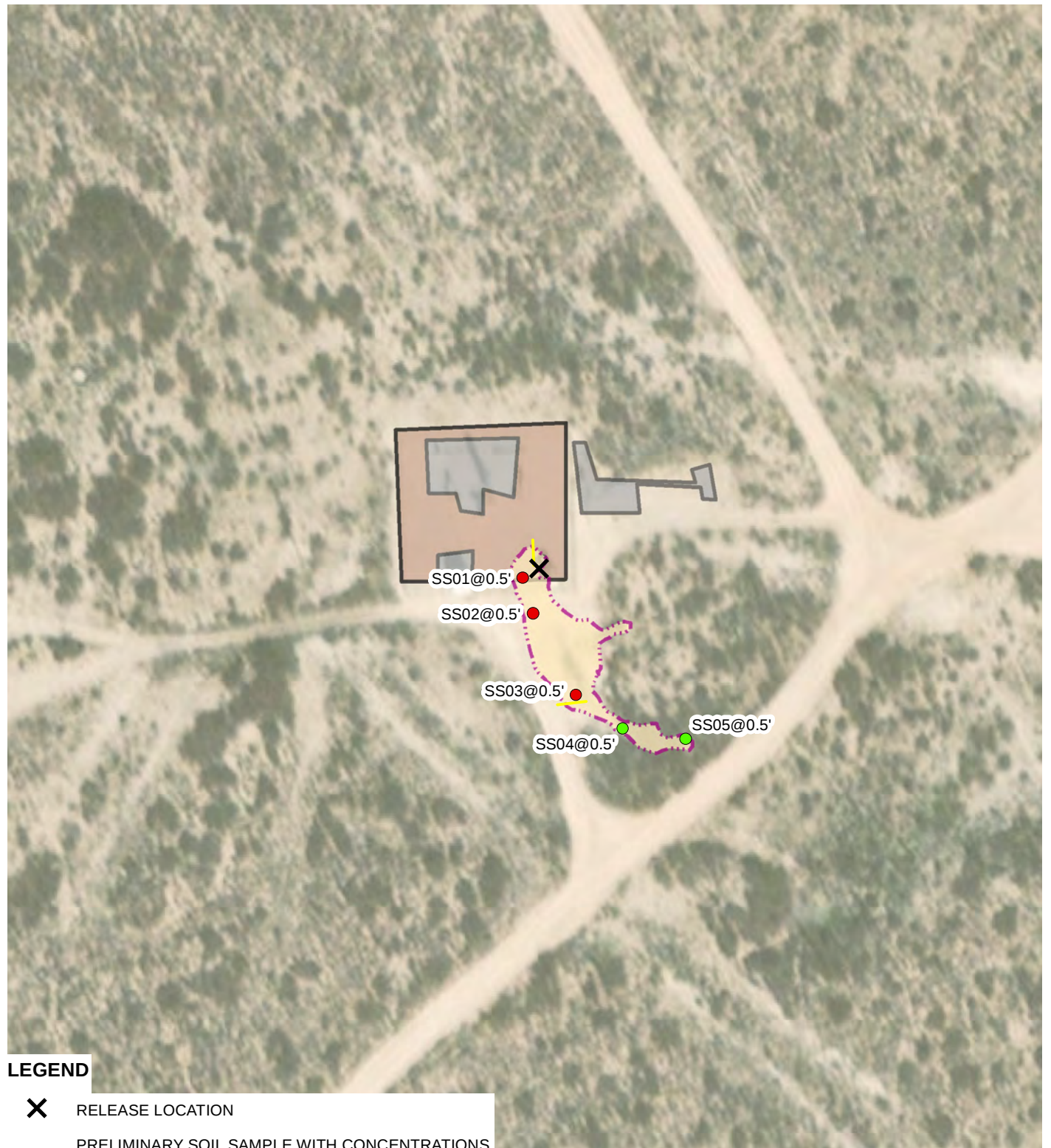
District 1
Page 6

Table 1 Soil Analytical Reports
Attachment 1 Referenced Well Logs
Attachment 2 Photographic Log
Attachment 3 Lithologic/Soil Sample Logs
Attachment 4 Laboratory Analytical Reports

FIGURES





**LEGEND**

RELEASE LOCATION



PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA



PRELIMINARY SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA



GAS LINE



RELEASE EXTENT



INFRASTRUCTURE



WELLPAD EXTENT

NOTE: INCIDENT NUMBER NRM2026852563

IMAGE COURTESY OF ESRI

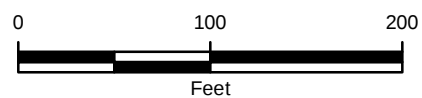


FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
 EMSU B 13 SATELLITE BATTERY
 UNIT B SEC 14 T20S R36E
 LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.



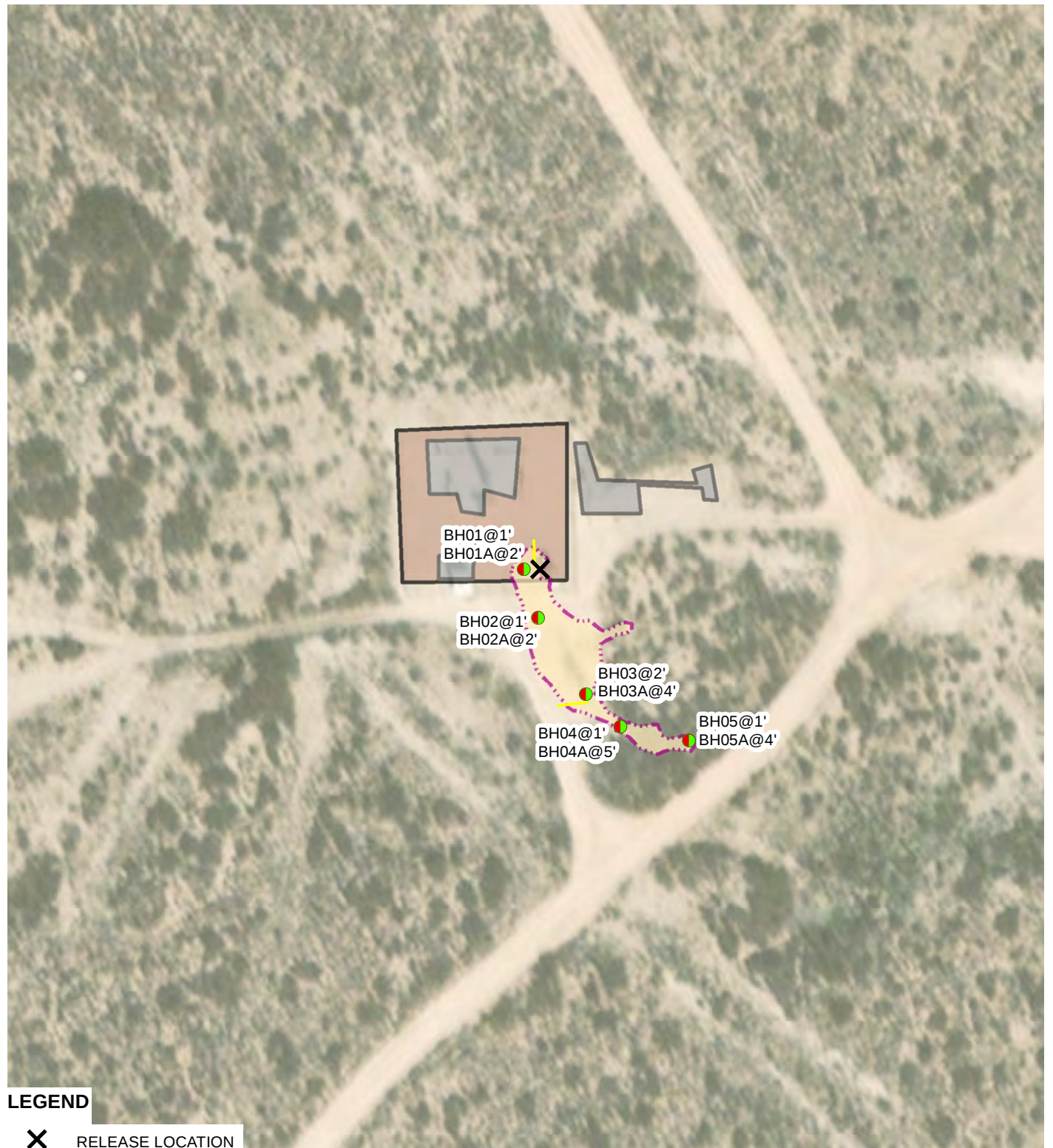


IMAGE COURTESY OF ESRI

LEGEND

RELEASE LOCATION

DELINEATION SOIL SAMPLE WITH CONCENTRATIONS
PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA

— GAS LINE



RELEASE EXTENT



INFRASTRUCTURE



WELLPAD EXTENT

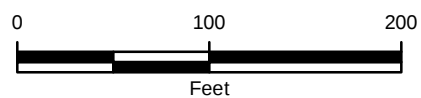
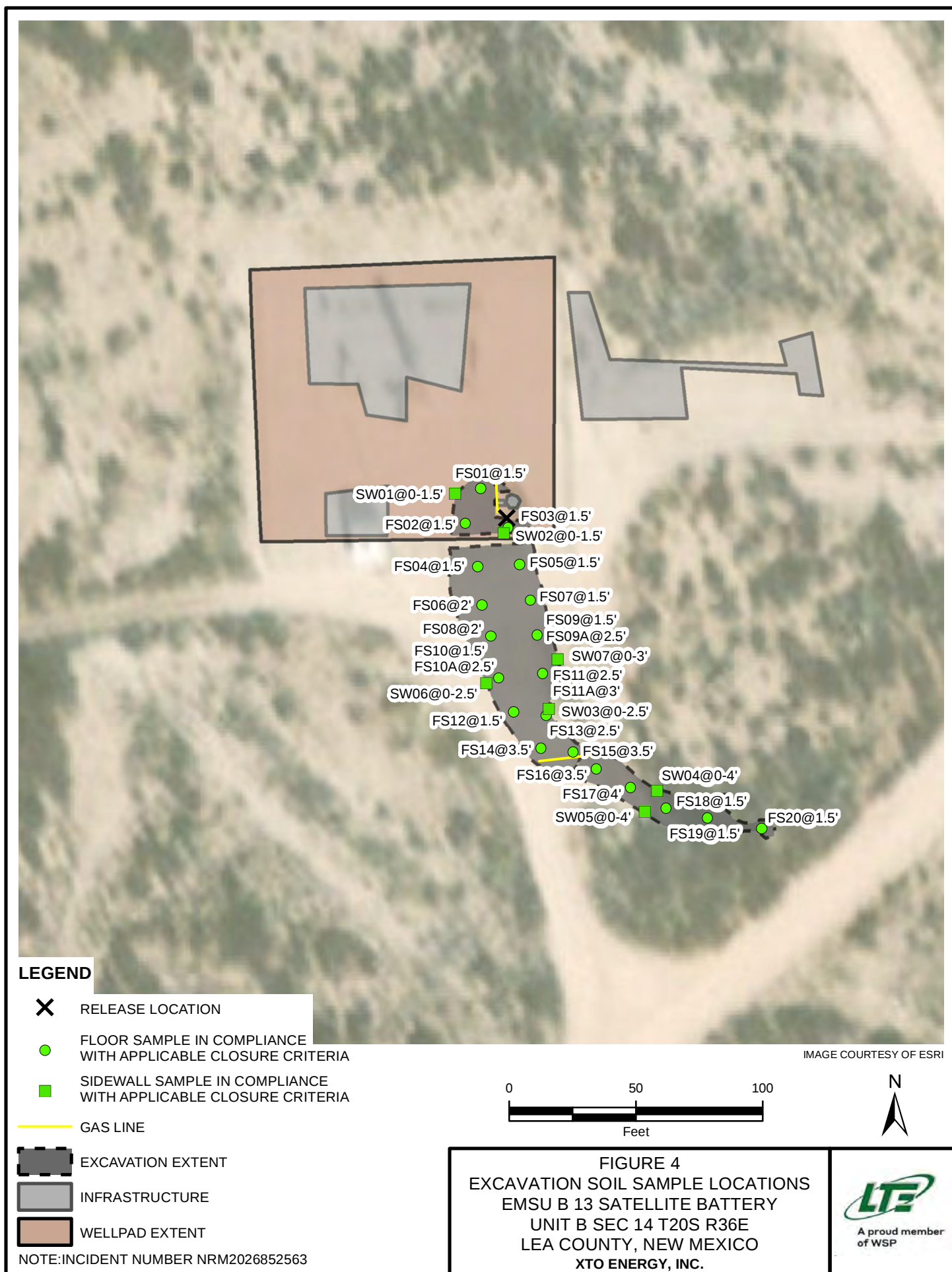
NOTE: INCIDENT NUMBER NRM2026852563
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
 EMSU B 13 SATELLITE BATTERY
 UNIT B SEC 14 T20S R36E
 LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.





P:\XTO Energy\GIS\MXD\012920131_EMSU B13 SATELLITE BATTERY\012920131_FIG04_EXCAVATION_2020.mxd

TABLES



**TABLE 1
SOIL ANALYTICAL RESULTS**

**EMSU B 13 SATELLITE BATTERY
INCIDENT NUMBER NRM2026852563
LEA COUNTY
XTO ENERGY**

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCDC TABLE 1 CLOSURE CRITERIA			10.0	NE	NE	NE	50.0	NE	NE	NE	NE	100	600
SS01	0.5	09/14/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	1,690	371	1,690	2,060	1,650
SS02	0.5	09/14/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	1,430
SS03	0.5	09/14/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	987
SS04	0.5	09/14/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	270
SS05	0.5	09/14/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	389
BH01	1	09/18/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	68.8	<49.8	68.8	68.8	1,260
BH01 A	2	09/18/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	184
BH02	1	09/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	1,300
BH02 A	2	09/18/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	50.8
BH03	2	09/18/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	1,880
BH03 A	4	09/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	416
BH04	1	09/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	2,150
BH04 A	5	09/18/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	359
BH05	1	09/18/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	1,860
BH05 A	4	09/18/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	12.8
SW01	0 - 1.5	09/29/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	106
SW02	0 - 1.5	09/29/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	455
SW03	0 - 2.5	09/30/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	407
SW04	0 - 4	09/30/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	81.7
SW05	0 - 4	09/30/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	133
SW06	0 - 2.5	10/12/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	323
SW07	0 - 3	10/12/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	118
FS01	1.5	09/29/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	123

**TABLE 1
SOIL ANALYTICAL RESULTS**

**EMSU B 13 SATELLITE BATTERY
INCIDENT NUMBER NRM2026852563
LEA COUNTY
XTO ENERGY**

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD TABLE 1 CLOSURE CRITERIA			10.0	NE	NE	NE	50.0	NE	NE	NE	NE	100	600
FS02	1.5	09/29/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	491
FS03	1.5	09/29/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	344
FS04	1.5	09/30/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	199
FS05	1.5	09/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	90.3
FS06	2	09/30/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	66.5
FS07	1.5	09/30/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	599
FS08	2	09/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	27.9
FS09	1.5	09/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	609
FS09 A	2.5	10/12/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	166
FS10	1.5	09/30/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	979
FS10 A	2.5	10/12/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	324
FS11	2.5	09/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	2,080
FS11 A	3	10/12/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	40.6
FS12	1.5	09/30/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	250
FS13	2.5	09/30/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	422
FS14	3.5	09/30/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	179
FS15	3.5	09/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	192
FS16	3.5	09/30/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	146
FS17	4	09/30/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	251

TABLE 1
SOIL ANALYTICAL RESULTS

EMSU B 13 SATELLITE BATTERY
INCIDENT NUMBER NRM2026852563
LEA COUNTY
XTO ENERGY

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD TABLE 1 CLOSURE CRITERIA			10.0	NE	NE	NE	50.0	NE	NE	NE	NE	100	600
FS18	1.5	09/30/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	123
FS19	1.5	09/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	144
FS20	1.5	09/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	54.5

Notes:

bgs - below ground surface

BTEX - benzene, toluene, ethylbenzene, and total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

MRO - motor oil range organics

NMAC - New Mexico Administrative Code

NMOCD - New Mexico Oil Conservation Division

NE - not established

TPH - total petroleum hydrocarbons

Bold - indicates result exceeds the applicable regulatory standard

< - indicates result is below laboratory reporting limits

Table 1 - closure criteria for soils impacted by a release per NMAC 19.15.29 August 2018

TEXT -Indicates soil was removed during excavation activities

ATTACHMENT 1: REFERENCED WELL RECORD





[USGS Home](#)
[Contact USGS](#)
[Search USGS](#)

National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

Click to hide News Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#) 

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 323429103193001

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 323429103193001 20S.36E.14.12223

Available data for this site

Groundwater: Field measurements



GO

Lea County, New Mexico

Hydrologic Unit Code 13070007

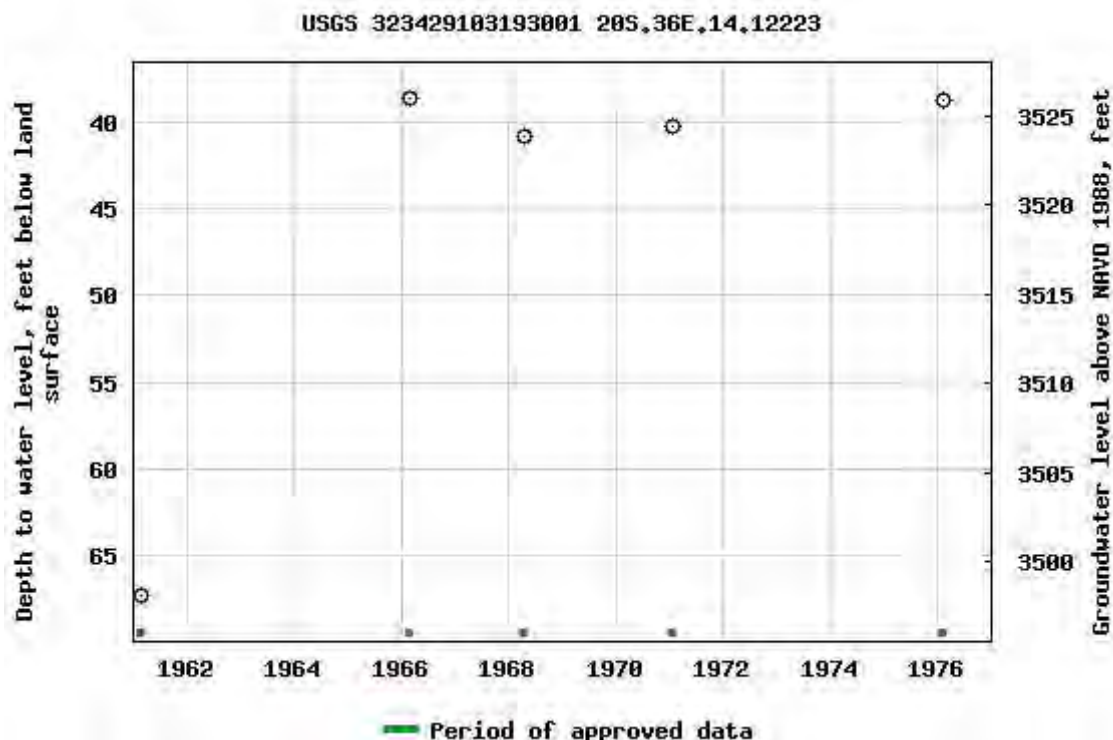
Latitude 32°34'29", Longitude 103°19'30" NAD27

Land-surface elevation 3,565 feet above NAVD88

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2020-10-22 09:50:39 EDT

0.65 0.54 nadww01

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation					Identifier: BH09		Date: 1/16/2020	
					Project Name: EMSU B 865		RP Number: 1RP-5562	
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: BB, WM		Method: Sonic Drill	
Lat/Long:			Field Screening: Chloride, PID		Hole Diameter: 4"		Total Depth: 50'	
Comments: DTW was developed in borehole 24 hrs after borehole was completed, DTW=41.6' bgs								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
M	<120	0	N	BH09	0	1'	SW	SAND, moist, light brown-tan, well graded, medium grain, some cobble, no stain, no odor
						4'	SP	SAND, dry, tan, poorly graded, fine grained, no stain, no odor
					8	6'	CCHE	CALICHE, dry, tan-off white, well consolidated, some dark brown limestone inclusions, no stain, no odor
					16			
D	204	0.1	N	BH09A	24	19'	SP	SAND, moist, light brown, poorly graded, fine grained, trace caliche gravel, no stain, no odor
D	<120	0.6	N	BH09B	32	27' 28'	CCHE	CALICHE, dry, tan-light brown, moderately consolidated, trace fine grained light brown sand, no stain, no odor
D	<120	0.7	N	BH09C		33' 34'	SP-S	SANDSTONE, dry, light brown, poorly consolidated, calcareous cemented, medium grain, poorly graded, some caliche gravel, no stain, no odor
					40	36'	SP	SAND w/ limestone gravel, dry, light brown, poorly graded, sub-round gravel, no stain, no odor
					48	43'	CH	CLAY, moist, red-dark brown, high plasticity, cohesive, few medium grain sand, no stain, no odor
						47'		Encountered groundwater/wet soil
M	<120	0.4	N	BH09D		50'		Total Depth 50 feet bgs Depth to water: 41.60 feet bgs (Measured on 1/17/20)
					56			



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)				(NAD83 UTM in meters)			
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng	X	Y
L	04507	3	2	14	20S	36E		657425	3605412*
Driller License: 46		Driller Company:		ABBOTT BROTHERS COMPANY					
Driller Name:		ABBOTT, MURRELL							
Drill Start Date: 08/01/1959		Drill Finish Date:		08/31/1959		Plug Date:			
Log File Date: 08/18/1960		PCW Rev Date:				Source:		Shallow	
Pump Type:		Pipe Discharge Size:				Estimated Yield:			
Casing Size: 7.00		Depth Well:		82 feet		Depth Water:		53 feet	
Water Bearing Stratifications:		Top	Bottom	Description					
		53	82	Sandstone/Gravel/Conglomerate					

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/22/20 8:03 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Water Right Summary

WR File Number: L 14799

Subbasin: L

Cross Reference: -

Primary Purpose: STK 72-12-1 LIVESTOCK WATERING

Primary Status: PMT PERMIT

Total Acres:

Subfile: -

Header: -

Total Diversion: 3

Cause/Case: -

Owner: L&K RANCH, LLC

Contact: CHRIS CORTEZ, ATKINS ENGR ASSOC LLC

Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/	Acres	Diversion	Consumptive
			1	2		To			
661607	72121	2019-10-28	PMT	APR	L 14799 POD1	T		3	

Current Points of Diversion

POD Number	Well Tag	Source	Q						(NAD83 UTM in meters)		Other Location Desc		
			64	Q	16	Q	4	Sec	Tws	Rng		X	Y
L 14799 POD1	NA		1	1	2	14	20	S	36	E	657271	3605935	

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/27/20 11:45 AM

WATER RIGHT SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng	X	Y
NA	L 14799 POD1	1	1	2	14	20S	36E	657271	3605935

Driller License:

Driller Company:

Driller Name:

Drill Start Date:

Drill Finish Date:

Plug Date:

Log File Date:

PCW Rcv Date:

Source:

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size:

Depth Well:

Depth Water:

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/21/20 4:51 PM

POINT OF DIVERSION SUMMARY

ATTACHMENT 2: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG



Photograph 1: View of release extent, lease road, and pad facing North.



Photograph 2: View of release extent in pasture facing East.



Photograph 3: View of delineation sampling at BH02 facing North.



Photograph 4: View of delineation sampling at BH03 facing East.

Site Name: EMSU B 13 Satellite Battery

Site Location: 32.57996, -103.32467

Photographs Taken: September 14, 2020 through October 12, 2020

Page 1 of 3

PHOTOGRAPHIC LOG



Photograph 5: View of completed excavation on pad facing South.



Photograph 6: View of excavation in lease road facing South.



Photograph 7: View of excavation in pasture facing East.



Photograph 8: View of backfill on pad and lease road facing South.

Site Name: EMSU B 13 Satellite Battery

Site Location: 32.57996, -103.32467

Photographs Taken: September 14, 2020 through October 12, 2020

Page 2 of 3

PHOTOGRAPHIC LOG



Photograph 9: View of backfill on pad facing East.



Photograph 10: View of backfill on lease road facing North.



Photograph 11: View of backfill in pasture after reseeding facing East.

Site Name: EMSU B 13 Satellite Battery

Site Location: 32.57996, -103.32467

Photographs Taken: September 14, 2020 through October 12, 2020

Page 3 of 3

ATTACHMENT 3: LITHOLOGIC/SOIL SAMPLE LOGS



 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 A proud member of WSP Compliance · Engineering · Remediation		BH or MW Name:		Date:					
		B1H01		9/18/20					
Site Name: EMSU B 13 Satellite Battery									
RP or Incident Number:									
LTE Job Number:									
LITHOLOGIC / SOIL SAMPLING LOG									
Lat/Long:		Field Screening:		Logged By: WM					
		Chloride, PID		Method: Hand Auger					
				Hole Diameter: 4"					
				Total Depth: 3'					
				Depth to Water: 3'					
Backfill or Well Construction Materials / Comments: Backfilled with cuttings									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
10:45 M	4.0 795	0.5	N	BH01	0	0		0-11.75' Caliche, Moderate consolidation, Tan/Bc, some gravel, few silt, moist, no stain, odor	
10:51 M	1.4 156	0.1	N	BH01A	1	1	CHE		
					2	2	SP-C	2'- Sand, Fine grain, poor grade, Dark Bc/Black, some clay, cohesive, low plastic, moist, no stain, no odor	
TO @ 2'									

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 A proud member of WSP Compliance · Engineering · Remediation		BH or MW Name: BH02		Date: 9/18/20					
		Site Name: EMSU B 13 Satellite Battery							
RP or Incident Number:									
LTE Job Number:									
LITHOLOGIC / SOIL SAMPLING LOG									
Lat/Long:		Field Screening: Chloride, PID		Logged By: WM					
				Method: Hand Auger					
				Hole Diameter:					
				Total Depth: 2'					
				Depth to Water: —					
Backfill or Well Construction Materials / Comments: Backfilled with cuttings									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
1:21 M	5.0 1204	0.2	N	BH02	1'	1	CCHS SP-C	0-1.5' caliche, moderate consolidation, tan/bk, some silt, no stain, odor, moist	
1:25 M	1.0 4156	0.3	N	BH02A	2'	2		1.5-2' sand, fine grain, poor grade, dark bk/gray, some clay, coarse, low plas., no stain, no odor, moist	
TDE 2'									

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 A proud member of WSP Compliance · Engineering · Remediation		BH or MW Name: BH03		Date: 9/18/20					
		Site Name: EMSU B 13 Satellite Battery							
RP or Incident Number:									
LTE Job Number:									
LITHOLOGIC / SOIL SAMPLING LOG									
Lat/Long:		Field Screening: Chloride, PID		Hole Diameter:					
				Total Depth: 22' 4"					
				Depth to Water: —					
Backfill or Well Construction Materials / Comments: Backfilled With cuttings									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
144 M	6.2 1870	0.2	N			0	CHE	0-0.5' caliche, moderately consol. dark tan/bk, some silt, no stain, odor, moist	
147 M	6.8 232	0.0	N	BH03	2'	2	SP-M	0.5'-2.0 SAND, fine grain, poor grade, dark bk/gray, some silt, consolidating	
135 M	3.6 666	0.3	N			3	CHE	low plas., no stain, no odor, moist.	
242 M	3.0 257	1.0	N	BH03A	4'	4		2.5-4.0 caliche, low consolidation, tan, some silt, no stain, no odor, moist	
TDE 4'									

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 A proud member of WSP Compliance · Engineering · Remediation		BH or MW Name: BH04		Date: 9/18/20					
		Site Name: EMSU B 13 Satellite Battery							
RP or Incident Number:									
LTE Job Number:									
LITHOLOGIC / SOIL SAMPLING LOG									
Lat/Long:		Field Screening: Chloride, PID		Logged By: WM					
				Method: Hand Auger					
				Hole Diameter:					
				Total Depth: 4'					
				Depth to Water:					
Backfill or Well Construction Materials / Comments: Back Filled With Cuttings									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
12:54 M	6.0 1741	0.2	N	BH04	1'	0	SP-M	0-1.5' Sand, Fine grain, poor grade, Dark Br, some silt, No stain	
2:56 M	5.0 1204	0.9	N			1		No odor, moist	
12:59 M	5.0 1204	0.5	N			2	CCH	1.5-5.0' Caliche, poorly consolidated, Tan/Br, some silt, No stain, No odor, moist	
3:01 M	5.0 1204	0.4	N			3			
3:02 M	1.8 224	0.1	N	BH04	5'	4			
						5			
TD@ 5.0'									

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 A proud member of WSP Compliance · Engineering · Remediation		BH or MW Name: BH05		Date: 9/18/20					
		Site Name: EMSU B 13 Satellite Battery							
RP or Incident Number:									
LTE Job Number:									
LITHOLOGIC / SOIL SAMPLING LOG									
Lat/Long:		Field Screening: Chloride, PID		Logged By: WM					
				Method: Hand Auger					
				Hole Diameter:					
				Total Depth: 4'					
				Depth to Water: —					
Backfill or Well Construction Materials / Comments: Backfilled with cuttings									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	Backfill / Well Completion
3140 M	6.0 1241	1.2	N	BH05	1'	0	SP-M	.75' 0-1' SAND, fine grain, poor grade, brown, some silt, no stain, no odor, moist	
3143 M	6 2156	0.2	N			1	CHE		
3145 D	6 2156	0.2	N			2		.75' Caliche, poorly consolidated	
3149 D	6 2156	1.0	N	BH05A	4	3		Tan/Bk, some silt, no stain, no odor, moist	
						4		3'- dry	
TD @ 4'									

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS



Certificate of Analysis Summary 672561



LT Environmental, Inc., Arvada, CO

Project Name: EMSU B 13 Satellite Battery

Project Id: 012920131

Date Received in Lab: Tue 09.15.2020 11:51

Contact: Dan Moir

Report Date: 09.16.2020 12:11

Project Location: Lea County

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	672561-001	672561-002	672561-003	672561-004	672561-005	
	Field Id:	SS01	SS02	SS03	SS04	SS05	
	Depth:	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
	Sampled:	09.14.2020 14:12	09.14.2020 14:14	09.14.2020 14:16	09.14.2020 14:18	09.14.2020 14:21	
BTEX by EPA 8021B	Extracted:	09.15.2020 13:01	09.15.2020 14:51	09.15.2020 14:51	09.15.2020 14:51	09.15.2020 14:51	
	Analyzed:	09.15.2020 15:21	09.15.2020 15:44	09.15.2020 16:06	09.15.2020 16:29	09.15.2020 16:51	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	
Toluene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	
m,p-Xylenes		<0.00397 0.00397	<0.00401 0.00401	<0.00402 0.00402	<0.00402 0.00402	<0.00399 0.00399	
o-Xylene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	
Total BTEX		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200	
Chloride by EPA 300	Extracted:	09.15.2020 15:00	09.15.2020 15:00	09.15.2020 15:00	09.15.2020 15:00	09.15.2020 15:00	
	Analyzed:	09.15.2020 15:51	09.15.2020 16:08	09.15.2020 16:13	09.15.2020 16:19	09.15.2020 16:24	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		1650 50.1	1430 49.5	987 9.92	270 9.96	389 9.90	
TPH by SW8015 Mod	Extracted:	09.15.2020 14:00	09.15.2020 14:00	09.15.2020 14:00	09.15.2020 14:00	09.15.2020 14:00	
	Analyzed:	09.16.2020 00:11	09.15.2020 20:50	09.15.2020 21:10	09.15.2020 21:30	09.15.2020 21:50	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.3 50.3	<50.1 50.1	<50.3 50.3	<50.3 50.3	
Diesel Range Organics (DRO)		1690 50.0	<50.3 50.3	<50.1 50.1	<50.3 50.3	<50.3 50.3	
Motor Oil Range Hydrocarbons (MRO)		371 50.0	<50.3 50.3	<50.1 50.1	<50.3 50.3	<50.3 50.3	
Total GRO-DRO		1690 50.0	<50.3 50.3	<50.1 50.1	<50.3 50.3	<50.3 50.3	
Total TPH		2060 50.0	<50.3 50.3	<50.1 50.1	<50.3 50.3	<50.3 50.3	

BRL - Below Reporting Limit

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



Analytical Report 672561

for

LT Environmental, Inc.

Project Manager: Dan Moir

EMSU B 13 Satellite Battery

012920131

09.16.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



09.16.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **672561**

EMSU B 13 Satellite Battery

Project Address: Lea County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 672561. 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 Eurofins Xenco, LLC. 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. 672561 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 672561****LT Environmental, Inc., Arvada, CO**

EMSU B 13 Satellite Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	09.14.2020 14:12	0.5 ft	672561-001
SS02	S	09.14.2020 14:14	0.5 ft	672561-002
SS03	S	09.14.2020 14:16	0.5 ft	672561-003
SS04	S	09.14.2020 14:18	0.5 ft	672561-004
SS05	S	09.14.2020 14:21	0.5 ft	672561-005



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *EMSU B 13 Satellite Battery*

Project ID: 012920131
Work Order Number(s): 672561

Report Date: 09.16.2020
Date Received: 09.15.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 672561

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SS01** Matrix: Soil Date Received: 09.15.2020 11:51
 Lab Sample Id: 672561-001 Date Collected: 09.14.2020 14:12 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.15.2020 15:00 Basis: Wet Weight
 Seq Number: 3137215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1650	50.1	mg/kg	09.15.2020 15:51		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.15.2020 14:00 Basis: Wet Weight
 Seq Number: 3137152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.16.2020 00:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	1690	50.0	mg/kg	09.16.2020 00:11		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	371	50.0	mg/kg	09.16.2020 00:11		1
Total GRO-DRO	PHC628	1690	50.0	mg/kg	09.16.2020 00:11		1
Total TPH	PHC635	2060	50.0	mg/kg	09.16.2020 00:11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	129	%	70-135	09.16.2020 00:11	
o-Terphenyl	84-15-1	133	%	70-135	09.16.2020 00:11	



Certificate of Analytical Results 672561

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SS01**
 Lab Sample Id: 672561-001

Matrix: Soil
 Date Collected: 09.14.2020 14:12

Date Received: 09.15.2020 11:51
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.15.2020 13:01

Basis: Wet Weight

Seq Number: 3137182

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.15.2020 15:21	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.15.2020 15:21	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.15.2020 15:21	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.15.2020 15:21	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.15.2020 15:21	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.15.2020 15:21	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.15.2020 15:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.15.2020 15:21	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.15.2020 15:21	



Certificate of Analytical Results 672561

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SS02** Matrix: Soil Date Received: 09.15.2020 11:51
 Lab Sample Id: 672561-002 Date Collected: 09.14.2020 14:14 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.15.2020 15:00 Basis: Wet Weight
 Seq Number: 3137215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1430	49.5	mg/kg	09.15.2020 16:08		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.15.2020 14:00 Basis: Wet Weight
 Seq Number: 3137152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	09.15.2020 20:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	09.15.2020 20:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.15.2020 20:50	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	09.15.2020 20:50	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	09.15.2020 20:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	09.15.2020 20:50	
o-Terphenyl	84-15-1	123	%	70-135	09.15.2020 20:50	



Certificate of Analytical Results 672561

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SS02**
 Lab Sample Id: 672561-002

Matrix: Soil
 Date Collected: 09.14.2020 14:14

Date Received: 09.15.2020 11:51
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.15.2020 14:51

Basis: Wet Weight

Seq Number: 3137182

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.15.2020 15:44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.15.2020 15:44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.15.2020 15:44	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.15.2020 15:44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.15.2020 15:44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.15.2020 15:44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.15.2020 15:44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.15.2020 15:44		
1,4-Difluorobenzene	540-36-3	99	%	70-130	09.15.2020 15:44		



Certificate of Analytical Results 672561

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SS03** Matrix: Soil Date Received: 09.15.2020 11:51
 Lab Sample Id: 672561-003 Date Collected: 09.14.2020 14:16 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.15.2020 15:00 Basis: Wet Weight
 Seq Number: 3137215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	987	9.92	mg/kg	09.15.2020 16:13		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.15.2020 14:00 Basis: Wet Weight
 Seq Number: 3137152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.15.2020 21:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.15.2020 21:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.15.2020 21:10	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.15.2020 21:10	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.15.2020 21:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	09.15.2020 21:10	
o-Terphenyl	84-15-1	123	%	70-135	09.15.2020 21:10	



Certificate of Analytical Results 672561

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SS03**
 Lab Sample Id: 672561-003

Matrix: Soil
 Date Collected: 09.14.2020 14:16

Date Received: 09.15.2020 11:51
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.15.2020 14:51

Basis: Wet Weight

Seq Number: 3137182

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.15.2020 16:06	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.15.2020 16:06	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.15.2020 16:06	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.15.2020 16:06	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.15.2020 16:06	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.15.2020 16:06	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.15.2020 16:06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	09.15.2020 16:06		
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.15.2020 16:06		



Certificate of Analytical Results 672561

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SS04** Matrix: Soil Date Received: 09.15.2020 11:51
 Lab Sample Id: 672561-004 Date Collected: 09.14.2020 14:18 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.15.2020 15:00 Basis: Wet Weight
 Seq Number: 3137215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	270	9.96	mg/kg	09.15.2020 16:19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.15.2020 14:00 Basis: Wet Weight
 Seq Number: 3137152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	09.15.2020 21:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	09.15.2020 21:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.15.2020 21:30	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	09.15.2020 21:30	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	09.15.2020 21:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	09.15.2020 21:30	
o-Terphenyl	84-15-1	119	%	70-135	09.15.2020 21:30	



Certificate of Analytical Results 672561

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SS04**
Lab Sample Id: 672561-004

Matrix: Soil
Date Collected: 09.14.2020 14:18

Date Received: 09.15.2020 11:51
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.15.2020 14:51

Basis: Wet Weight

Seq Number: 3137182

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.15.2020 16:29	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.15.2020 16:29	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.15.2020 16:29	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.15.2020 16:29	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.15.2020 16:29	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.15.2020 16:29	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.15.2020 16:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.15.2020 16:29	
4-Bromofluorobenzene	460-00-4	89	%	70-130	09.15.2020 16:29	



Certificate of Analytical Results 672561

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SS05** Matrix: Soil Date Received: 09.15.2020 11:51
 Lab Sample Id: 672561-005 Date Collected: 09.14.2020 14:21 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.15.2020 15:00 Basis: Wet Weight
 Seq Number: 3137215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	389	9.90	mg/kg	09.15.2020 16:24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.15.2020 14:00 Basis: Wet Weight
 Seq Number: 3137152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	09.15.2020 21:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	09.15.2020 21:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.15.2020 21:50	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	09.15.2020 21:50	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	09.15.2020 21:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	09.15.2020 21:50	
o-Terphenyl	84-15-1	120	%	70-135	09.15.2020 21:50	



Certificate of Analytical Results 672561

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SS05**
 Lab Sample Id: 672561-005

Matrix: Soil
 Date Collected: 09.14.2020 14:21

Date Received: 09.15.2020 11:51
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.15.2020 14:51

Basis: Wet Weight

Seq Number: 3137182

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.15.2020 16:51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.15.2020 16:51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.15.2020 16:51	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.15.2020 16:51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.15.2020 16:51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.15.2020 16:51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.15.2020 16:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.15.2020 16:51	
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.15.2020 16:51	

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. **ND** Not Detected.

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



LT Environmental, Inc.
EMSU B 13 Satellite Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3137215

MB Sample Id: 7711376-1-BLK

Matrix: Solid

LCS Sample Id: 7711376-1-BKS

Prep Method: E300P

Date Prep: 09.15.2020

LCSD Sample Id: 7711376-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	256	102	90-110	0	20	mg/kg	09.15.2020 15:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3137215

Parent Sample Id: 672561-001

Matrix: Soil

MS Sample Id: 672561-001 S

Prep Method: E300P

Date Prep: 09.15.2020

MSD Sample Id: 672561-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1650	201	1830	90	1830	90	90-110	0	20	mg/kg	09.15.2020 15:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3137215

Parent Sample Id: 672578-006

Matrix: Soil

MS Sample Id: 672578-006 S

Prep Method: E300P

Date Prep: 09.15.2020

MSD Sample Id: 672578-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	171	202	378	102	377	102	90-110	0	20	mg/kg	09.15.2020 17:14	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3137152

MB Sample Id: 7711341-1-BLK

Matrix: Solid

LCS Sample Id: 7711341-1-BKS

Prep Method: SW8015P

Date Prep: 09.15.2020

LCSD Sample Id: 7711341-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	766	77	786	79	70-135	3	35	mg/kg	09.15.2020 10:46	
Diesel Range Organics (DRO)	<50.0	1000	850	85	888	89	70-135	4	35	mg/kg	09.15.2020 10:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		111		114		70-135	%	09.15.2020 10:46
o-Terphenyl	102		107		109		70-135	%	09.15.2020 10:46

Analytical Method: TPH by SW8015 Mod

Seq Number: 3137152

Matrix: Solid

MB Sample Id: 7711341-1-BLK

Prep Method: SW8015P

Date Prep: 09.15.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.15.2020 10:26	

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



LT Environmental, Inc.
EMSU B 13 Satellite Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3137152

Parent Sample Id: 672501-001

Matrix: Soil

MS Sample Id: 672501-001 S

Prep Method: SW8015P

Date Prep: 09.15.2020

MSD Sample Id: 672501-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	719	72	731	73	70-135	2	35	mg/kg	09.15.2020 11:47	
Diesel Range Organics (DRO)	<50.2	1000	790	79	806	81	70-135	2	35	mg/kg	09.15.2020 11:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		131		70-135	%	09.15.2020 11:47
o-Terphenyl	126		127		70-135	%	09.15.2020 11:47

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137182

MB Sample Id: 7711337-1-BLK

Matrix: Solid

LCS Sample Id: 7711337-1-BKS

Prep Method: SW5035A

Date Prep: 09.15.2020

LCSD Sample Id: 7711337-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.102	102	0.105	105	70-130	3	35	mg/kg	09.15.2020 11:49	
Toluene	<0.00200	0.100	0.101	101	0.104	104	70-130	3	35	mg/kg	09.15.2020 11:49	
Ethylbenzene	<0.00200	0.100	0.0951	95	0.0989	99	71-129	4	35	mg/kg	09.15.2020 11:49	
m,p-Xylenes	<0.00400	0.200	0.192	96	0.200	100	70-135	4	35	mg/kg	09.15.2020 11:49	
o-Xylene	<0.00200	0.100	0.0939	94	0.0981	98	71-133	4	35	mg/kg	09.15.2020 11:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		97		98		70-130	%	09.15.2020 11:49
4-Bromofluorobenzene	87		86		88		70-130	%	09.15.2020 11:49

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137182

Parent Sample Id: 672501-001

Matrix: Soil

MS Sample Id: 672501-001 S

Prep Method: SW5035A

Date Prep: 09.15.2020

MSD Sample Id: 672501-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.113	113	0.108	108	70-130	5	35	mg/kg	09.15.2020 12:34	
Toluene	<0.00200	0.0998	0.111	111	0.104	104	70-130	7	35	mg/kg	09.15.2020 12:34	
Ethylbenzene	<0.00200	0.0998	0.104	104	0.0943	94	71-129	10	35	mg/kg	09.15.2020 12:34	
m,p-Xylenes	<0.00399	0.200	0.210	105	0.188	94	70-135	11	35	mg/kg	09.15.2020 12:34	
o-Xylene	<0.00200	0.0998	0.104	104	0.0932	93	71-133	11	35	mg/kg	09.15.2020 12:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		98		70-130	%	09.15.2020 12:34
4-Bromofluorobenzene	88		86		70-130	%	09.15.2020 12:34

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

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

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

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



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

Chain of Custody

Work Order No: 1672561

www.xenco.com Page 1 of 1

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

Project Name:	EMSU B 13 Satellite Battery	Turn Around	
Project Number:	012920131	Routine	
P.O. Number:	Lea	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	14/11.2	Thermometer ID				
Received Intact:	Yes	No	T-NM-001			
Cooler Custody Seals:	Yes	No	Correction Factor:			
Sample Custody Seals:	Yes	No	Total Containers:			

Sample Identification					Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								</
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Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010: 8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		9.15.20 11:51			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09.15.2020 11.51.00 AM

Work Order #: 672561

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6* Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

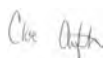
Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 09.15.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.16.2020



Certificate of Analysis Summary 673097

LT Environmental, Inc., Arvada, CO

Project Name: EMSU B13 Satellite Battery

Project Id: 012920131
Contact: Dan Moir
Project Location: Lea County

Date Received in Lab: Mon 09.21.2020 08:38
Report Date: 09.22.2020 11:25
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	673097-001	673097-002	673097-003	673097-004	673097-005	673097-006
	<i>Field Id:</i>	BH01	BH01 A	BH02	BH02 A	BH03	BH03 A
	<i>Depth:</i>	1- ft	2- ft	1- ft	2- ft	2- ft	4- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.18.2020 10:45	09.18.2020 10:51	09.18.2020 11:21	09.18.2020 11:25	09.18.2020 11:47	09.18.2020 12:42
BTEX by EPA 8021B	<i>Extracted:</i>	09.21.2020 10:06	09.21.2020 10:06	09.21.2020 10:06	09.21.2020 10:06	09.21.2020 10:06	09.21.2020 10:06
	<i>Analyzed:</i>	09.21.2020 13:41	09.21.2020 14:03	09.21.2020 14:26	09.21.2020 14:48	09.21.2020 15:10	09.21.2020 15:33
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00396 0.00396	<0.00398 0.00398	<0.00401 0.00401	<0.00398 0.00398	<0.00402 0.00402	<0.00400 0.00400
o-Xylene		<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	09.21.2020 15:04	09.21.2020 15:04	09.21.2020 15:04	09.21.2020 15:04	09.21.2020 15:04	09.21.2020 15:04
	<i>Analyzed:</i>	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1260 49.8	184 10.0	1300 50.2	50.8 10.0	1880 49.7	416 10.0
TPH by SW8015 Mod	<i>Extracted:</i>	09.21.2020 11:30	09.21.2020 11:30	09.21.2020 11:30	09.21.2020 11:30	09.21.2020 11:30	09.21.2020 11:30
	<i>Analyzed:</i>	09.21.2020 12:56	09.21.2020 13:57	09.21.2020 14:17	09.21.2020 14:37	09.21.2020 14:58	09.21.2020 15:18
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1	<49.9 49.9	<49.8 49.8
Diesel Range Organics (DRO)		68.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1	<49.9 49.9	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1	<49.9 49.9	<49.8 49.8
Total GRO-DRO		68.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1	<49.9 49.9	<49.8 49.8
Total TPH		68.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1	<49.9 49.9	<49.8 49.8

BRL - Below Reporting Limit

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

Jessica Kramer

Certificate of Analysis Summary 673097



LT Environmental, Inc., Arvada, CO

Project Name: EMSU B13 Satellite Battery

Project Id: 012920131
Contact: Dan Moir
Project Location: Lea County

Date Received in Lab: Mon 09.21.2020 08:38
Report Date: 09.22.2020 11:25
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	673097-007	673097-008	673097-009	673097-010		
	<i>Field Id:</i>	BH04	BH04 A	BH05	BH05 A		
	<i>Depth:</i>	1- ft	5- ft	1- ft	4- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	09.18.2020 12:54	09.18.2020 13:22	09.18.2020 13:40	09.18.2020 13:49		
BTEX by EPA 8021B	<i>Extracted:</i>	09.21.2020 10:06	09.21.2020 10:06	09.21.2020 10:06	09.21.2020 10:06		
	<i>Analyzed:</i>	09.21.2020 15:55	09.21.2020 16:18	09.21.2020 16:40	09.21.2020 17:03		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201		
Toluene		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201		
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201		
m,p-Xylenes		<0.00399 0.00399	<0.00403 0.00403	<0.00402 0.00402	<0.00402 0.00402		
o-Xylene		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201		
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201		
Total BTEX		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201		
Chloride by EPA 300	<i>Extracted:</i>	09.21.2020 15:04	09.21.2020 15:04	09.21.2020 15:04	09.21.2020 15:04		
	<i>Analyzed:</i>	09.21.2020 15:06	09.21.2020 15:11	09.21.2020 15:17	09.21.2020 15:22		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		2150 50.4	359 10.0	1860 50.2	12.8 10.1		
TPH by SW8015 Mod	<i>Extracted:</i>	09.21.2020 11:30	09.21.2020 11:30	09.21.2020 11:30	09.21.2020 11:30		
	<i>Analyzed:</i>	09.21.2020 15:38	09.21.2020 15:58	09.21.2020 16:18	09.21.2020 16:38		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<49.9 49.9	<50.1 50.1	<50.2 50.2		
Diesel Range Organics (DRO)		<50.1 50.1	<49.9 49.9	<50.1 50.1	<50.2 50.2		
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.9 49.9	<50.1 50.1	<50.2 50.2		
Total GRO-DRO		<50.1 50.1	<49.9 49.9	<50.1 50.1	<50.2 50.2		
Total TPH		<50.1 50.1	<49.9 49.9	<50.1 50.1	<50.2 50.2		

BRL - Below Reporting Limit

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



Analytical Report 673097

for

LT Environmental, Inc.

Project Manager: Dan Moir

EMSU B13 Satellite Battery

012920131

09.22.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



09.22.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **673097**

EMSU B13 Satellite Battery

Project Address: Lea County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 673097. 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 Eurofins Xenco, LLC. 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. 673097 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 673097****LT Environmental, Inc., Arvada, CO**

EMSU B13 Satellite Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	09.18.2020 10:45	1 ft	673097-001
BH01 A	S	09.18.2020 10:51	2 ft	673097-002
BH02	S	09.18.2020 11:21	1 ft	673097-003
BH02 A	S	09.18.2020 11:25	2 ft	673097-004
BH03	S	09.18.2020 11:47	2 ft	673097-005
BH03 A	S	09.18.2020 12:42	4 ft	673097-006
BH04	S	09.18.2020 12:54	1 ft	673097-007
BH04 A	S	09.18.2020 13:22	5 ft	673097-008
BH05	S	09.18.2020 13:40	1 ft	673097-009
BH05 A	S	09.18.2020 13:49	4 ft	673097-010



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *EMSU B13 Satellite Battery*

Project ID: 012920131
Work Order Number(s): 673097

Report Date: 09.22.2020
Date Received: 09.21.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH01** Matrix: Soil Date Received: 09.21.2020 08:38
 Lab Sample Id: 673097-001 Date Collected: 09.18.2020 10:45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.21.2020 15:04 Basis: Wet Weight
 Seq Number: 3137713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1260	49.8	mg/kg	09.21.2020 14:11		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.21.2020 11:30 Basis: Wet Weight
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.21.2020 12:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	68.8	49.8	mg/kg	09.21.2020 12:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.21.2020 12:56	U	1
Total GRO-DRO	PHC628	68.8	49.8	mg/kg	09.21.2020 12:56		1
Total TPH	PHC635	68.8	49.8	mg/kg	09.21.2020 12:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	09.21.2020 12:56	
o-Terphenyl	84-15-1	93	%	70-135	09.21.2020 12:56	



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH01**
 Lab Sample Id: 673097-001

Matrix: Soil
 Date Collected: 09.18.2020 10:45

Date Received: 09.21.2020 08:38
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 10:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.21.2020 13:41	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.21.2020 13:41	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.21.2020 13:41	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	09.21.2020 13:41	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.21.2020 13:41	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.21.2020 13:41	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.21.2020 13:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	70-130	09.21.2020 13:41	
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.21.2020 13:41	



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH01 A** Matrix: Soil Date Received: 09.21.2020 08:38
 Lab Sample Id: 673097-002 Date Collected: 09.18.2020 10:51 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.21.2020 15:04 Basis: Wet Weight
 Seq Number: 3137713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	184	10.0	mg/kg	09.21.2020 14:27		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.21.2020 11:30 Basis: Wet Weight
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.21.2020 13:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.21.2020 13:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.21.2020 13:57	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	09.21.2020 13:57	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.21.2020 13:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	09.21.2020 13:57	
o-Terphenyl	84-15-1	92	%	70-135	09.21.2020 13:57	



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH01 A**
 Lab Sample Id: 673097-002

Matrix: Soil
 Date Collected: 09.18.2020 10:51

Date Received: 09.21.2020 08:38
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 10:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.21.2020 14:03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.21.2020 14:03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.21.2020 14:03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.21.2020 14:03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.21.2020 14:03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.21.2020 14:03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.21.2020 14:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.21.2020 14:03		
1,4-Difluorobenzene	540-36-3	103	%	70-130	09.21.2020 14:03		



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH02** Matrix: Soil Date Received: 09.21.2020 08:38
 Lab Sample Id: 673097-003 Date Collected: 09.18.2020 11:21 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.21.2020 15:04 Basis: Wet Weight
 Seq Number: 3137713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1300	50.2	mg/kg	09.21.2020 14:33		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.21.2020 11:30 Basis: Wet Weight
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	09.21.2020 14:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	09.21.2020 14:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	09.21.2020 14:17	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	09.21.2020 14:17	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	09.21.2020 14:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	09.21.2020 14:17	
o-Terphenyl	84-15-1	86	%	70-135	09.21.2020 14:17	



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH02**
 Lab Sample Id: 673097-003

Matrix: Soil
 Date Collected: 09.18.2020 11:21

Date Received: 09.21.2020 08:38
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 10:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.21.2020 14:26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.21.2020 14:26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.21.2020 14:26	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	09.21.2020 14:26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.21.2020 14:26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.21.2020 14:26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.21.2020 14:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.21.2020 14:26	
4-Bromofluorobenzene	460-00-4	94	%	70-130	09.21.2020 14:26	



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH02 A** Matrix: Soil Date Received: 09.21.2020 08:38
 Lab Sample Id: 673097-004 Date Collected: 09.18.2020 11:25 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.21.2020 15:04 Basis: Wet Weight
 Seq Number: 3137713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.8	10.0	mg/kg	09.21.2020 14:38		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.21.2020 11:30 Basis: Wet Weight
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.21.2020 14:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.21.2020 14:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.21.2020 14:37	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.21.2020 14:37	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.21.2020 14:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	09.21.2020 14:37	
o-Terphenyl	84-15-1	87	%	70-135	09.21.2020 14:37	



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH02 A**
 Lab Sample Id: 673097-004

Matrix: Soil
 Date Collected: 09.18.2020 11:25

Date Received: 09.21.2020 08:38
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 10:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.21.2020 14:48	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.21.2020 14:48	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.21.2020 14:48	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.21.2020 14:48	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.21.2020 14:48	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.21.2020 14:48	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.21.2020 14:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.21.2020 14:48	
4-Bromofluorobenzene	460-00-4	91	%	70-130	09.21.2020 14:48	



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH03** Matrix: Soil Date Received: 09.21.2020 08:38
 Lab Sample Id: 673097-005 Date Collected: 09.18.2020 11:47 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.21.2020 15:04 Basis: Wet Weight
 Seq Number: 3137713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1880	49.7	mg/kg	09.21.2020 14:44		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.21.2020 11:30 Basis: Wet Weight
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.21.2020 14:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.21.2020 14:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.21.2020 14:58	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	09.21.2020 14:58	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.21.2020 14:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.21.2020 14:58	
o-Terphenyl	84-15-1	89	%	70-135	09.21.2020 14:58	



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH03**
Lab Sample Id: 673097-005

Matrix: Soil
Date Collected: 09.18.2020 11:47

Date Received: 09.21.2020 08:38
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 10:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.21.2020 15:10	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.21.2020 15:10	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.21.2020 15:10	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.21.2020 15:10	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.21.2020 15:10	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.21.2020 15:10	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.21.2020 15:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	09.21.2020 15:10		
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.21.2020 15:10		



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH03 A** Matrix: Soil Date Received: 09.21.2020 08:38
 Lab Sample Id: 673097-006 Date Collected: 09.18.2020 12:42 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.21.2020 15:04 Basis: Wet Weight
 Seq Number: 3137713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	416	10.0	mg/kg	09.21.2020 15:00		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.21.2020 11:30 Basis: Wet Weight
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.21.2020 15:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.21.2020 15:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.21.2020 15:18	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	09.21.2020 15:18	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.21.2020 15:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	09.21.2020 15:18	
o-Terphenyl	84-15-1	89	%	70-135	09.21.2020 15:18	



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH03 A**
 Lab Sample Id: 673097-006

Matrix: Soil
 Date Collected: 09.18.2020 12:42

Date Received: 09.21.2020 08:38
 Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 10:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.21.2020 15:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.21.2020 15:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.21.2020 15:33	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	09.21.2020 15:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.21.2020 15:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.21.2020 15:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.21.2020 15:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	86	%	70-130	09.21.2020 15:33		
1,4-Difluorobenzene	540-36-3	101	%	70-130	09.21.2020 15:33		



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH04** Matrix: Soil Date Received: 09.21.2020 08:38
 Lab Sample Id: 673097-007 Date Collected: 09.18.2020 12:54 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.21.2020 15:04 Basis: Wet Weight
 Seq Number: 3137713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2150	50.4	mg/kg	09.21.2020 15:06		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.21.2020 11:30 Basis: Wet Weight
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.21.2020 15:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.21.2020 15:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.21.2020 15:38	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.21.2020 15:38	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.21.2020 15:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	09.21.2020 15:38	
o-Terphenyl	84-15-1	92	%	70-135	09.21.2020 15:38	



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH04**
 Lab Sample Id: 673097-007

Matrix: Soil
 Date Collected: 09.18.2020 12:54

Date Received: 09.21.2020 08:38
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 10:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	09.21.2020 15:55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	09.21.2020 15:55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	09.21.2020 15:55	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	09.21.2020 15:55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	09.21.2020 15:55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	09.21.2020 15:55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	09.21.2020 15:55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	09.21.2020 15:55		
4-Bromofluorobenzene	460-00-4	90	%	70-130	09.21.2020 15:55		



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH04 A** Matrix: Soil Date Received: 09.21.2020 08:38
 Lab Sample Id: 673097-008 Date Collected: 09.18.2020 13:22 Sample Depth: 5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.21.2020 15:04 Basis: Wet Weight
 Seq Number: 3137713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	359	10.0	mg/kg	09.21.2020 15:11		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.21.2020 11:30 Basis: Wet Weight
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.21.2020 15:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.21.2020 15:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.21.2020 15:58	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	09.21.2020 15:58	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.21.2020 15:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	09.21.2020 15:58	
o-Terphenyl	84-15-1	87	%	70-135	09.21.2020 15:58	



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH04 A**
 Lab Sample Id: 673097-008

Matrix: Soil
 Date Collected: 09.18.2020 13:22

Date Received: 09.21.2020 08:38
 Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 10:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.21.2020 16:18	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.21.2020 16:18	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.21.2020 16:18	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.21.2020 16:18	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.21.2020 16:18	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.21.2020 16:18	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.21.2020 16:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	70-130	09.21.2020 16:18	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.21.2020 16:18	



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LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH05** Matrix: Soil Date Received: 09.21.2020 08:38
 Lab Sample Id: 673097-009 Date Collected: 09.18.2020 13:40 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.21.2020 15:04 Basis: Wet Weight
 Seq Number: 3137713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1860	50.2	mg/kg	09.21.2020 15:17		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.21.2020 11:30 Basis: Wet Weight
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.21.2020 16:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.21.2020 16:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.21.2020 16:18	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.21.2020 16:18	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.21.2020 16:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	09.21.2020 16:18	
o-Terphenyl	84-15-1	90	%	70-135	09.21.2020 16:18	



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LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH05**
Lab Sample Id: 673097-009

Matrix: Soil
Date Collected: 09.18.2020 13:40

Date Received: 09.21.2020 08:38
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 10:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.21.2020 16:40	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.21.2020 16:40	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.21.2020 16:40	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.21.2020 16:40	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.21.2020 16:40	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.21.2020 16:40	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.21.2020 16:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.21.2020 16:40	
4-Bromofluorobenzene	460-00-4	94	%	70-130	09.21.2020 16:40	



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH05 A** Matrix: Soil Date Received: 09.21.2020 08:38
 Lab Sample Id: 673097-010 Date Collected: 09.18.2020 13:49 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.21.2020 15:04 Basis: Wet Weight
 Seq Number: 3137713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.8	10.1	mg/kg	09.21.2020 15:22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.21.2020 11:30 Basis: Wet Weight
 Seq Number: 3137717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.21.2020 16:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.21.2020 16:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.21.2020 16:38	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	09.21.2020 16:38	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.21.2020 16:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	09.21.2020 16:38	
o-Terphenyl	84-15-1	86	%	70-135	09.21.2020 16:38	



Certificate of Analytical Results 673097

LT Environmental, Inc., Arvada, CO

EMSU B13 Satellite Battery

Sample Id: **BH05 A**
 Lab Sample Id: 673097-010

Matrix: Soil
 Date Collected: 09.18.2020 13:49

Date Received: 09.21.2020 08:38
 Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.21.2020 10:06

Basis: Wet Weight

Seq Number: 3137712

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.21.2020 17:03	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.21.2020 17:03	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.21.2020 17:03	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.21.2020 17:03	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.21.2020 17:03	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.21.2020 17:03	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.21.2020 17:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	70-130	09.21.2020 17:03	
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.21.2020 17:03	

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. **ND** Not Detected.

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



LT Environmental, Inc.
EMSU B13 Satellite Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3137713

MB Sample Id: 7711753-1-BLK

Matrix: Solid

LCS Sample Id: 7711753-1-BKS

Prep Method: E300P

Date Prep: 09.21.2020

LCSD Sample Id: 7711753-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	256	102	90-110	0	20	mg/kg	09.21.2020 13:27	

Analytical Method: Chloride by EPA 300

Seq Number: 3137713

Parent Sample Id: 673097-001

Matrix: Soil

MS Sample Id: 673097-001 S

Prep Method: E300P

Date Prep: 09.21.2020

MSD Sample Id: 673097-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1260	198	1470	106	1450	95	90-110	1	20	mg/kg	09.21.2020 14:16	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3137717

MB Sample Id: 7711777-1-BLK

Matrix: Solid

LCS Sample Id: 7711777-1-BKS

Prep Method: SW8015P

Date Prep: 09.21.2020

LCSD Sample Id: 7711777-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	848	85	811	81	70-135	4	35	mg/kg	09.21.2020 12:16	
Diesel Range Organics (DRO)	<50.0	1000	872	87	832	83	70-135	5	35	mg/kg	09.21.2020 12:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	88		94		93		70-135	%	09.21.2020 12:16
o-Terphenyl	84		83		80		70-135	%	09.21.2020 12:16

Analytical Method: TPH by SW8015 Mod

Seq Number: 3137717

Matrix: Solid

MB Sample Id: 7711777-1-BLK

Prep Method: SW8015P

Date Prep: 09.21.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.21.2020 11:56	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3137717

Matrix: Soil

Parent Sample Id: 673097-001

MS Sample Id: 673097-001 S

Prep Method: SW8015P

Date Prep: 09.21.2020

MSD Sample Id: 673097-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	852	85	846	85	70-135	1	35	mg/kg	09.21.2020 13:17	
Diesel Range Organics (DRO)	68.8	1000	948	88	964	90	70-135	2	35	mg/kg	09.21.2020 13:17	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		107		70-135	%	09.21.2020 13:17
o-Terphenyl	93		93		70-135	%	09.21.2020 13:17

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



LT Environmental, Inc.
EMSU B13 Satellite Battery

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137712

MB Sample Id: 7711754-1-BLK

Matrix: Solid

LCS Sample Id: 7711754-1-BKS

Prep Method: SW5035A

Date Prep: 09.21.2020

LCSD Sample Id: 7711754-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0978	98	0.104	104	70-130	6	35	mg/kg	09.21.2020 11:38	
Toluene	<0.00200	0.100	0.0948	95	0.101	101	70-130	6	35	mg/kg	09.21.2020 11:38	
Ethylbenzene	<0.00200	0.100	0.0885	89	0.0941	94	71-129	6	35	mg/kg	09.21.2020 11:38	
m,p-Xylenes	<0.00400	0.200	0.179	90	0.191	96	70-135	6	35	mg/kg	09.21.2020 11:38	
o-Xylene	<0.00200	0.100	0.0873	87	0.0933	93	71-133	7	35	mg/kg	09.21.2020 11:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		99		99		70-130	%	09.21.2020 11:38
4-Bromofluorobenzene	86		89		93		70-130	%	09.21.2020 11:38

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137712

Parent Sample Id: 673097-001

Matrix: Soil

MS Sample Id: 673097-001 S

Prep Method: SW5035A

Date Prep: 09.21.2020

MSD Sample Id: 673097-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.121	120	0.122	121	70-130	1	35	mg/kg	09.21.2020 12:23	
Toluene	<0.00201	0.101	0.111	110	0.127	126	70-130	13	35	mg/kg	09.21.2020 12:23	
Ethylbenzene	<0.00201	0.101	0.0935	93	0.118	117	71-129	23	35	mg/kg	09.21.2020 12:23	
m,p-Xylenes	<0.00402	0.201	0.187	93	0.238	118	70-135	24	35	mg/kg	09.21.2020 12:23	
o-Xylene	<0.00201	0.101	0.0916	91	0.116	115	71-133	24	35	mg/kg	09.21.2020 12:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		98		70-130	%	09.21.2020 12:23
4-Bromofluorobenzene	92		85		70-130	%	09.21.2020 12:23

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: 673097

Houston, TX (281) 240-4200 Dallas, TX (214) 802-0300 San Antonio, TX (210) 505-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Little
Company Name:	LT Environmental	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432-236-3049	Email:	N.Mather@item.com, DMoir@item.com

Project Name:	EMSB 13 Satellite Battery	Turn Around	
Project Number:	018920131	Routine	☐
Project Location:	Lea	Rush:	2 day
Sampler's Name:	William Mather	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temperature (°C):	2.0 / 1.8	Temp Blank:	☒ Yes ☐ No	Wet Ice:	☒ Yes ☐ No
	Received Intact:	☒ Yes ☐ No	Thermometer ID			
	Cooler Custody Seals:	Yes ☒ No ☐ N/A	Correction Factor:	-0.2		
	Sample Custody Seals:	Yes ☒ No ☐ N/A	Total Containers:	10		

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes
BH01		S	9/18/20	10:45	1'	1	TPH (EPA 8015)	MeOH: Me
BH01A				10:51	2'	1	BTEX (EPA 0-8021)	None: NO
BH02				11:21	1'	1	Chloride (EPA 300.0)	HNO3: HN
BH02A				11:25	2'	1		H2SO4: H2
BH03				11:47	2'	1		HCL: HL
BH03A				12:42	4'	1		NaOH: Na
BH04				12:54	1'	1		Zn Acetate+ NaOH: Zn
BH04A				13:22	5'	1		
BH05				13:40	1'	1		
BH05A				13:49	4'	1		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Pb Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>William Mather</i>	<i>Kyle Little</i>	09/21/20 @ 08:26	<i>William Mather</i>	<i>Joe Cifton</i>	9/21/20 08:38

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09.21.2020 08.38.00 AM

Work Order #: 673097

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 09.21.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.22.2020



Certificate of Analysis Summary 673903

LT Environmental, Inc., Arvada, CO

Project Name: EMSU B 13 Satellite Battery

Project Id: 012920131

Contact: Dan Moir

Project Location: Lea County

Date Received in Lab: Wed 09.30.2020 10:30

Report Date: 10.02.2020 14:18

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	673903-001	673903-002	673903-003	673903-004	673903-005	
	<i>Field Id:</i>	FS01	FS02	FS03	SW01	SW02	
	<i>Depth:</i>	1.5- ft	1.5- ft	1.5- ft	0-1.5 ft	0-1.5 ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	09.29.2020 13:42	09.29.2020 13:45	09.29.2020 13:48	09.29.2020 13:56	09.29.2020 13:58	
BTEX by EPA 8021B	<i>Extracted:</i>	09.30.2020 14:15	09.30.2020 14:15	09.30.2020 14:15	09.30.2020 14:15	09.30.2020 14:15	
	<i>Analyzed:</i>	10.01.2020 04:11	10.01.2020 04:33	10.01.2020 04:56	10.01.2020 06:15	10.01.2020 06:38	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	
Toluene		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	
Ethylbenzene		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	
m,p-Xylenes		<0.00404 0.00404	<0.00398 0.00398	<0.00401 0.00401	<0.00401 0.00401	<0.00402 0.00402	
o-Xylene		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	
Total Xylenes		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	
Total BTEX		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	
Chloride by EPA 300	<i>Extracted:</i>	09.30.2020 15:13	09.30.2020 15:13	09.30.2020 15:13	09.30.2020 15:13	09.30.2020 15:13	
	<i>Analyzed:</i>	09.30.2020 19:22	09.30.2020 19:38	09.30.2020 19:44	09.30.2020 19:49	09.30.2020 19:55	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		123 10.1	491 9.90	344 10.0	106 9.98	455 10.0	
TPH by SW8015 Mod	<i>Extracted:</i>	09.30.2020 12:30	09.30.2020 13:30	09.30.2020 13:30	09.30.2020 13:30	09.30.2020 13:30	
	<i>Analyzed:</i>	09.30.2020 15:30	09.30.2020 16:28	09.30.2020 16:48	09.30.2020 17:08	09.30.2020 17:49	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<49.9 49.9	<50.1 50.1	<49.8 49.8	<50.2 50.2	
Diesel Range Organics (DRO)		<50.2 50.2	<49.9 49.9	<50.1 50.1	<49.8 49.8	<50.2 50.2	
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.9 49.9	<50.1 50.1	<49.8 49.8	<50.2 50.2	
Total GRO-DRO		<50.2 50.2	<49.9 49.9	<50.1 50.1	<49.8 49.8	<50.2 50.2	
Total TPH		<50.2 50.2	<49.9 49.9	<50.1 50.1	<49.8 49.8	<50.2 50.2	

BRL - Below Reporting Limit

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

Jessica Kramer



Analytical Report 673903

for

LT Environmental, Inc.

Project Manager: Dan Moir

EMSU B 13 Satellite Battery

012920131

10.02.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



10.02.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **673903**

EMSU B 13 Satellite Battery

Project Address: Lea County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 673903. 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 Eurofins Xenco, LLC. 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. 673903 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 673903****LT Environmental, Inc., Arvada, CO**

EMSU B 13 Satellite Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	09.29.2020 13:42	1.5 ft	673903-001
FS02	S	09.29.2020 13:45	1.5 ft	673903-002
FS03	S	09.29.2020 13:48	1.5 ft	673903-003
SW01	S	09.29.2020 13:56	0 - 1.5 ft	673903-004
SW02	S	09.29.2020 13:58	0 - 1.5 ft	673903-005



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *EMSU B 13 Satellite Battery*

Project ID: 012920131
Work Order Number(s): 673903

Report Date: 10.02.2020
Date Received: 09.30.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 673903

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **FS01** Matrix: Soil Date Received: 09.30.2020 10:30
 Lab Sample Id: 673903-001 Date Collected: 09.29.2020 13:42 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.30.2020 15:13 Basis: Wet Weight
 Seq Number: 3138590

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	123	10.1	mg/kg	09.30.2020 19:22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.30.2020 12:30 Basis: Wet Weight
 Seq Number: 3138536

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.30.2020 15:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.30.2020 15:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.30.2020 15:30	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	09.30.2020 15:30	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.30.2020 15:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	09.30.2020 15:30	
o-Terphenyl	84-15-1	95	%	70-135	09.30.2020 15:30	



Certificate of Analytical Results 673903

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **FS01**
 Lab Sample Id: 673903-001

Matrix: Soil
 Date Collected: 09.29.2020 13:42

Date Received: 09.30.2020 10:30
 Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.30.2020 14:15

Basis: Wet Weight

Seq Number: 3138585

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.01.2020 04:11	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.01.2020 04:11	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.01.2020 04:11	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	10.01.2020 04:11	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.01.2020 04:11	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.01.2020 04:11	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.01.2020 04:11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	70-130	10.01.2020 04:11		
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.01.2020 04:11		



Certificate of Analytical Results 673903

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **FS02** Matrix: Soil Date Received: 09.30.2020 10:30
 Lab Sample Id: 673903-002 Date Collected: 09.29.2020 13:45 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.30.2020 15:13 Basis: Wet Weight
 Seq Number: 3138590

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	491	9.90	mg/kg	09.30.2020 19:38		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.30.2020 13:30 Basis: Wet Weight
 Seq Number: 3138536

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	09.30.2020 16:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	09.30.2020 16:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	09.30.2020 16:28	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	09.30.2020 16:28	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	09.30.2020 16:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	09.30.2020 16:28	
o-Terphenyl	84-15-1	99	%	70-135	09.30.2020 16:28	



Certificate of Analytical Results 673903

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **FS02**
 Lab Sample Id: 673903-002

Matrix: Soil
 Date Collected: 09.29.2020 13:45

Date Received: 09.30.2020 10:30
 Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.30.2020 14:15

Basis: Wet Weight

Seq Number: 3138585

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.01.2020 04:33	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.01.2020 04:33	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.01.2020 04:33	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.01.2020 04:33	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.01.2020 04:33	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.01.2020 04:33	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.01.2020 04:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.01.2020 04:33		
4-Bromofluorobenzene	460-00-4	121	%	70-130	10.01.2020 04:33		



Certificate of Analytical Results 673903

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **FS03** Matrix: Soil Date Received: 09.30.2020 10:30
 Lab Sample Id: 673903-003 Date Collected: 09.29.2020 13:48 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.30.2020 15:13 Basis: Wet Weight
 Seq Number: 3138590

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	344	10.0	mg/kg	09.30.2020 19:44		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.30.2020 13:30 Basis: Wet Weight
 Seq Number: 3138536

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	09.30.2020 16:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	09.30.2020 16:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	09.30.2020 16:48	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	09.30.2020 16:48	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	09.30.2020 16:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	09.30.2020 16:48	
o-Terphenyl	84-15-1	99	%	70-135	09.30.2020 16:48	



Certificate of Analytical Results 673903

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **FS03**
 Lab Sample Id: 673903-003

Matrix: Soil
 Date Collected: 09.29.2020 13:48

Date Received: 09.30.2020 10:30
 Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.30.2020 14:15

Basis: Wet Weight

Seq Number: 3138585

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.01.2020 04:56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.01.2020 04:56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.01.2020 04:56	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.01.2020 04:56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.01.2020 04:56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.01.2020 04:56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.01.2020 04:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	10.01.2020 04:56	
1,4-Difluorobenzene	540-36-3	106	%	70-130	10.01.2020 04:56	



Certificate of Analytical Results 673903

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SW01** Matrix: Soil Date Received: 09.30.2020 10:30
 Lab Sample Id: 673903-004 Date Collected: 09.29.2020 13:56 Sample Depth: 0 - 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.30.2020 15:13 Basis: Wet Weight
 Seq Number: 3138590

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	106	9.98	mg/kg	09.30.2020 19:49		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.30.2020 13:30 Basis: Wet Weight
 Seq Number: 3138536

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.30.2020 17:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	09.30.2020 17:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	09.30.2020 17:08	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	09.30.2020 17:08	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	09.30.2020 17:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	09.30.2020 17:08	
o-Terphenyl	84-15-1	99	%	70-135	09.30.2020 17:08	



Certificate of Analytical Results 673903

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SW01**
 Lab Sample Id: 673903-004

Matrix: Soil
 Date Collected: 09.29.2020 13:56

Date Received: 09.30.2020 10:30
 Sample Depth: 0 - 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.30.2020 14:15

Basis: Wet Weight

Seq Number: 3138585

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.01.2020 06:15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.01.2020 06:15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.01.2020 06:15	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.01.2020 06:15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.01.2020 06:15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.01.2020 06:15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.01.2020 06:15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	10.01.2020 06:15		
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.01.2020 06:15		



Certificate of Analytical Results 673903

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SW02** Matrix: Soil Date Received: 09.30.2020 10:30
 Lab Sample Id: 673903-005 Date Collected: 09.29.2020 13:58 Sample Depth: 0 - 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.30.2020 15:13 Basis: Wet Weight
 Seq Number: 3138590

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	455	10.0	mg/kg	09.30.2020 19:55		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.30.2020 13:30 Basis: Wet Weight
 Seq Number: 3138536

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.30.2020 17:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.30.2020 17:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.30.2020 17:49	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	09.30.2020 17:49	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.30.2020 17:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	09.30.2020 17:49	
o-Terphenyl	84-15-1	95	%	70-135	09.30.2020 17:49	



Certificate of Analytical Results 673903

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SW02**
 Lab Sample Id: 673903-005

Matrix: Soil
 Date Collected: 09.29.2020 13:58

Date Received: 09.30.2020 10:30
 Sample Depth: 0 - 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.30.2020 14:15

Basis: Wet Weight

Seq Number: 3138585

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.01.2020 06:38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.01.2020 06:38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.01.2020 06:38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.01.2020 06:38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.01.2020 06:38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.01.2020 06:38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.01.2020 06:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.01.2020 06:38	
4-Bromofluorobenzene	460-00-4	115	%	70-130	10.01.2020 06:38	

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. **ND** Not Detected.

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



LT Environmental, Inc.
EMSU B 13 Satellite Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3138590

MB Sample Id: 7712379-1-BLK

Matrix: Solid

LCS Sample Id: 7712379-1-BKS

Prep Method: E300P

Date Prep: 09.30.2020

LCSD Sample Id: 7712379-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	250	100	250	100	90-110	0	20	mg/kg	09.30.2020 17:32	

Analytical Method: Chloride by EPA 300

Seq Number: 3138590

Parent Sample Id: 673902-006

Matrix: Soil

MS Sample Id: 673902-006 S

Prep Method: E300P

Date Prep: 09.30.2020

MSD Sample Id: 673902-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1740	199	1930	95	1930	95	90-110	0	20	mg/kg	09.30.2020 17:49	

Analytical Method: Chloride by EPA 300

Seq Number: 3138590

Parent Sample Id: 673902-016

Matrix: Soil

MS Sample Id: 673902-016 S

Prep Method: E300P

Date Prep: 09.30.2020

MSD Sample Id: 673902-016 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1370	200	1570	100	1570	100	90-110	0	20	mg/kg	09.30.2020 19:05	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3138536

MB Sample Id: 7712384-1-BLK

Matrix: Solid

LCS Sample Id: 7712384-1-BKS

Prep Method: SW8015P

Date Prep: 09.30.2020

LCSD Sample Id: 7712384-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1030	103	995	100	70-135	3	35	mg/kg	09.30.2020 12:10	
Diesel Range Organics (DRO)	<50.0	1000	1150	115	1110	111	70-135	4	35	mg/kg	09.30.2020 12:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		123		119		70-135	%	09.30.2020 12:10
o-Terphenyl	98		115		111		70-135	%	09.30.2020 12:10

Analytical Method: TPH by SW8015 Mod

Seq Number: 3138536

Matrix: Solid

MB Sample Id: 7712384-1-BLK

Prep Method: SW8015P

Date Prep: 09.30.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.30.2020 12:50	

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



LT Environmental, Inc.
EMSU B 13 Satellite Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3138536

Parent Sample Id: 673902-001

Matrix: Soil

MS Sample Id: 673902-001 S

Prep Method: SW8015P

Date Prep: 09.30.2020

MSD Sample Id: 673902-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	1050	104	1020	102	70-135	3	35	mg/kg	09.30.2020 13:30	
Diesel Range Organics (DRO)	<50.3	1010	1180	117	1140	114	70-135	3	35	mg/kg	09.30.2020 13:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		117		70-135	%	09.30.2020 13:30
o-Terphenyl	114		108		70-135	%	09.30.2020 13:30

Analytical Method: BTEX by EPA 8021B

Seq Number: 3138585

MB Sample Id: 7712387-1-BLK

Matrix: Solid

LCS Sample Id: 7712387-1-BKS

Prep Method: SW5035A

Date Prep: 09.30.2020

LCSD Sample Id: 7712387-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0996	100	0.0953	95	70-130	4	35	mg/kg	09.30.2020 23:29	
Toluene	<0.00200	0.100	0.0927	93	0.0879	88	70-130	5	35	mg/kg	09.30.2020 23:29	
Ethylbenzene	<0.00200	0.100	0.0960	96	0.0934	93	71-129	3	35	mg/kg	09.30.2020 23:29	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.187	94	70-135	4	35	mg/kg	09.30.2020 23:29	
o-Xylene	<0.00200	0.100	0.0970	97	0.0943	94	71-133	3	35	mg/kg	09.30.2020 23:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		96		106		70-130	%	09.30.2020 23:29
4-Bromofluorobenzene	118		102		111		70-130	%	09.30.2020 23:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3138585

Parent Sample Id: 673902-011

Matrix: Soil

MS Sample Id: 673902-011 S

Prep Method: SW5035A

Date Prep: 09.30.2020

MSD Sample Id: 673902-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.111	110	0.0943	93	70-130	16	35	mg/kg	10.01.2020 00:14	
Toluene	<0.00202	0.101	0.105	104	0.0873	86	70-130	18	35	mg/kg	10.01.2020 00:14	
Ethylbenzene	<0.00202	0.101	0.108	107	0.0894	89	71-129	19	35	mg/kg	10.01.2020 00:14	
m,p-Xylenes	<0.00403	0.202	0.220	109	0.180	90	70-135	20	35	mg/kg	10.01.2020 00:14	
o-Xylene	<0.00202	0.101	0.107	106	0.0886	88	71-133	19	35	mg/kg	10.01.2020 00:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		70-130	%	10.01.2020 00:14
4-Bromofluorobenzene	115		115		70-130	%	10.01.2020 00:14

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: 473903

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)

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Page 1 of 1

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

Project Name:	EMSU B 13 Satellite Battery	Turn Around	
Project Number:	012920131	Routine	☒
P.O. Number:	Lea	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT	Temp Blank:	☒ Yes	☒ No	Wet Ice:	☒ Yes	☒ No
	Temperature (°C):	2.0 / 1.8				
	Received Intact:	☒ Yes ☐ No				
	Cooler Custody Seals:	☒ Yes ☐ No				
	Sample Custody Seals:	☒ Yes ☐ No				

Thermometer ID	1-NM-007
Correction Factor:	-0.2
Total Containers:	5

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	ANALYSIS REQUEST										Work Order Notes
					Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)							
FS01	S	9/29/2020	13:42	1.5'	1	X	X	X							Composite
FS02	S	9/29/2020	13:45	1.5'	1	X	X	X							Composite
FS03	S	9/29/2020	13:48	1.5'	1	X	X	X							Composite
SW01	S	9/29/2020	13:56	0-1.5'	1	X	X	X							Composite
SW02	S	9/29/2020	13:58	0-1.5'	1	X	X	X							Composite

TAT starts the day received 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 Ti Sn U V Zn

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	9-30-2010	<i>[Signature]</i>	<i>[Signature]</i>	9-30-2010

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09.30.2020 10.30.00 AM

Work Order #: 673903

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 09.30.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.30.2020



Certificate of Analysis Summary 674037

LT Environmental, Inc., Arvada, CO

Project Name: EMSU B Satellite Battery

Project Id: 012920131
Contact: Dan Moir
Project Location: Lea County

Date Received in Lab: Thu 10.01.2020 08:18
Report Date: 10.07.2020 10:29
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	674037-001	674037-002	674037-003	674037-004	674037-005	674037-006
	<i>Field Id:</i>	FS04	FS05	FS06	FS07	FS08	FS09
	<i>Depth:</i>	1.5- ft	1.5- ft	2- ft	1.5- ft	2- ft	1.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.30.2020 10:38	09.30.2020 10:44	09.30.2020 13:58	09.30.2020 12:59	09.30.2020 14:00	09.30.2020 11:01
BTEX by EPA 8021B	<i>Extracted:</i>	10.02.2020 15:28	10.02.2020 15:28	10.02.2020 10:11	10.02.2020 10:11	10.02.2020 10:11	10.02.2020 10:11
	<i>Analyzed:</i>	10.03.2020 10:20	10.03.2020 10:42	10.02.2020 14:18	10.02.2020 15:55	10.02.2020 16:18	10.02.2020 16:40
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00400 0.00400	<0.00403 0.00403	<0.00398 0.00398	<0.00401 0.00401	<0.00401 0.00401
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	10.01.2020 17:17	10.01.2020 17:17	10.01.2020 17:17	10.01.2020 17:17	10.02.2020 13:20	10.02.2020 14:20
	<i>Analyzed:</i>	10.02.2020 05:58	10.02.2020 06:04	10.02.2020 06:09	10.02.2020 06:14	10.02.2020 14:10	10.02.2020 14:27
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		199 50.5	90.3 50.1	66.5 9.92	599 10.0	27.9 10.0	609 10.0
TPH by SW8015 Mod	<i>Extracted:</i>	10.02.2020 10:00	10.02.2020 10:00	10.02.2020 10:00	10.02.2020 10:00	10.02.2020 10:00	10.02.2020 10:00
	<i>Analyzed:</i>	10.02.2020 15:05	10.02.2020 15:46	10.02.2020 16:06	10.02.2020 16:26	10.02.2020 16:54	10.02.2020 17:14
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.1 50.1
Diesel Range Organics (DRO)		<50.2 50.2	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.1 50.1
Total GRO-DRO		<50.2 50.2	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.1 50.1
Total TPH		<50.2 50.2	<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.1 50.1

BRL - Below Reporting Limit

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

Jessica Kramer

Certificate of Analysis Summary 674037



LT Environmental, Inc., Arvada, CO

Project Name: EMSU B Satellite Battery

Project Id: 012920131

Date Received in Lab: Thu 10.01.2020 08:18

Contact: Dan Moir

Report Date: 10.07.2020 10:29

Project Location: Lea County

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	674037-007	674037-008	674037-009	674037-010	674037-011	674037-012
	<i>Field Id:</i>	FS10	FS11	FS12	FS13	FS14	FS15
	<i>Depth:</i>	1.5- ft	2.5- ft	1.5- ft	2.5- ft	3.5- ft	3.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.30.2020 11:03	09.30.2020 13:45	09.30.2020 11:07	09.30.2020 13:47	09.30.2020 11:13	09.30.2020 14:38
BTEX by EPA 8021B	<i>Extracted:</i>	10.02.2020 10:11	10.02.2020 10:11	10.02.2020 10:11	10.02.2020 10:11	10.02.2020 10:11	10.02.2020 10:11
	<i>Analyzed:</i>	10.02.2020 17:03	10.02.2020 17:25	10.02.2020 17:47	10.02.2020 18:10	10.02.2020 19:30	10.02.2020 19:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00396 0.00396	<0.00401 0.00401	<0.00398 0.00398	<0.00402 0.00402	<0.00402 0.00402	<0.00400 0.00400
o-Xylene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	10.02.2020 14:20	10.02.2020 14:20	10.02.2020 14:20	10.02.2020 14:20	10.02.2020 14:20	10.02.2020 14:20
	<i>Analyzed:</i>	10.02.2020 14:32	10.02.2020 14:37	10.02.2020 14:43	10.02.2020 14:59	10.02.2020 15:05	10.02.2020 16:17
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		979 10.0	2080 50.2	250 9.90	422 49.7	179 49.9	192 9.94
TPH by SW8015 Mod	<i>Extracted:</i>	10.02.2020 10:00	10.02.2020 10:00	10.02.2020 10:00	10.02.2020 10:00	10.02.2020 10:00	10.02.2020 10:00
	<i>Analyzed:</i>	10.02.2020 17:34	10.02.2020 17:55	10.02.2020 18:15	10.02.2020 18:35	10.02.2020 18:55	10.02.2020 17:14
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.1 50.1
Diesel Range Organics (DRO)		<50.1 50.1	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.1 50.1
Total GRO-DRO		<50.1 50.1	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.1 50.1
Total TPH		<50.1 50.1	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.1 50.1

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 674037



LT Environmental, Inc., Arvada, CO

Project Name: EMSU B Satellite Battery

Project Id: 012920131
Contact: Dan Moir
Project Location: Lea County

Date Received in Lab: Thu 10.01.2020 08:18**Report Date:** 10.07.2020 10:29**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	674037-013	674037-014	674037-015	674037-016	674037-017	674037-018
	<i>Field Id:</i>	FS16	FS17	FS18	FS19	FS20	SW03
	<i>Depth:</i>	3.5- ft	4- ft	1.5- ft	1.5- ft	1.5- ft	0-2.5 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	09.30.2020 14:39	09.30.2020 12:47	09.30.2020 14:43	09.30.2020 14:44	09.30.2020 14:45	09.30.2020 14:16
BTEX by EPA 8021B	<i>Extracted:</i>	10.02.2020 10:11	10.02.2020 10:11	10.02.2020 10:11	10.02.2020 10:11	10.02.2020 10:11	10.02.2020 10:11
	<i>Analyzed:</i>	10.02.2020 20:15	10.02.2020 20:37	10.02.2020 21:00	10.02.2020 21:22	10.02.2020 21:44	10.02.2020 22:07
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Toluene		<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Ethylbenzene		<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
m,p-Xylenes		<0.00402 0.00402	<0.00396 0.00396	<0.00396 0.00396	<0.00400 0.00400	<0.00399 0.00399	<0.00396 0.00396
o-Xylene		<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Total Xylenes		<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Total BTEX		<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	10.02.2020 14:20	10.02.2020 14:20	10.02.2020 14:20	10.02.2020 14:20	10.02.2020 14:20	10.02.2020 14:20
	<i>Analyzed:</i>	10.02.2020 16:22	10.02.2020 16:28	10.02.2020 16:33	10.02.2020 16:50	10.02.2020 16:55	10.02.2020 17:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		146 49.9	251 49.7	123 49.5	144 49.9	54.5 50.4	407 49.8
TPH by SW8015 Mod	<i>Extracted:</i>	10.02.2020 10:00	10.02.2020 10:00	10.02.2020 10:00	10.02.2020 10:00	10.02.2020 10:00	10.02.2020 10:00
	<i>Analyzed:</i>	10.02.2020 17:34	10.02.2020 17:55	10.02.2020 18:15	10.02.2020 18:35	10.02.2020 11:05	10.02.2020 13:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.1 50.1	<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1
Diesel Range Organics (DRO)		<49.8 49.8	<50.1 50.1	<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.1 50.1	<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1
Total GRO-DRO		<49.8 49.8	<50.1 50.1	<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1
Total TPH		<49.8 49.8	<50.1 50.1	<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 674037



LT Environmental, Inc., Arvada, CO

Project Name: EMSU B Satellite Battery

Project Id: 012920131
Contact: Dan Moir
Project Location: Lea County

Date Received in Lab: Thu 10.01.2020 08:18
Report Date: 10.07.2020 10:29
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	674037-019	674037-020				
	Field Id:	SW04	SW05				
	Depth:	0-4 ft	0-4 ft				
	Matrix:	SOIL	SOIL				
	Sampled:	09.30.2020 14:40	09.30.2020 14:41				
BTEX by EPA 8021B	Extracted:	10.02.2020 10:11	10.02.2020 10:11				
	Analyzed:	10.02.2020 22:29	10.02.2020 22:52				
	Units/RL:	mg/kg RL	mg/kg RL				
		<0.00201 0.00201	<0.00198 0.00198				
Benzene		<0.00201 0.00201	<0.00198 0.00198				
Toluene		<0.00201 0.00201	<0.00198 0.00198				
Ethylbenzene		<0.00201 0.00201	<0.00198 0.00198				
m,p-Xylenes		<0.00402 0.00402	<0.00397 0.00397				
o-Xylene		<0.00201 0.00201	<0.00198 0.00198				
Total Xylenes		<0.00201 0.00201	<0.00198 0.00198				
Total BTEX		<0.00201 0.00201	<0.00198 0.00198				
Chloride by EPA 300	Extracted:	10.02.2020 14:20	10.02.2020 14:20				
	Analyzed:	10.02.2020 17:17	10.02.2020 17:23				
	Units/RL:	mg/kg RL	mg/kg RL				
		81.7 9.94	133 49.8				
Chloride							
TPH by SW8015 Mod	Extracted:	10.02.2020 10:00	10.02.2020 10:00				
	Analyzed:	10.02.2020 14:05	10.02.2020 14:25				
	Units/RL:	mg/kg RL	mg/kg RL				
		<50.2 50.2	<49.9 49.9				
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<49.9 49.9				
Diesel Range Organics (DRO)		<50.2 50.2	<49.9 49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.9 49.9				
Total GRO-DRO		<50.2 50.2	<49.9 49.9				
Total TPH		<50.2 50.2	<49.9 49.9				

BRL - Below Reporting Limit

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



Analytical Report 674037

for

LT Environmental, Inc.

Project Manager: Dan Moir

EMSU B Satellite Battery

012920131

10.07.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



10.07.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **674037**

EMSU B Satellite Battery

Project Address: Lea County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 674037. 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 Eurofins Xenco, LLC. 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. 674037 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 674037

LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS04	S	09.30.2020 10:38	1.5 ft	674037-001
FS05	S	09.30.2020 10:44	1.5 ft	674037-002
FS06	S	09.30.2020 13:58	2 ft	674037-003
FS07	S	09.30.2020 12:59	1.5 ft	674037-004
FS08	S	09.30.2020 14:00	2 ft	674037-005
FS09	S	09.30.2020 11:01	1.5 ft	674037-006
FS10	S	09.30.2020 11:03	1.5 ft	674037-007
FS11	S	09.30.2020 13:45	2.5 ft	674037-008
FS12	S	09.30.2020 11:07	1.5 ft	674037-009
FS13	S	09.30.2020 13:47	2.5 ft	674037-010
FS14	S	09.30.2020 11:13	3.5 ft	674037-011
FS15	S	09.30.2020 14:38	3.5 ft	674037-012
FS16	S	09.30.2020 14:39	3.5 ft	674037-013
FS17	S	09.30.2020 12:47	4 ft	674037-014
FS18	S	09.30.2020 14:43	1.5 ft	674037-015
FS19	S	09.30.2020 14:44	1.5 ft	674037-016
FS20	S	09.30.2020 14:45	1.5 ft	674037-017
SW03	S	09.30.2020 14:16	0 - 2.5 ft	674037-018
SW04	S	09.30.2020 14:40	0 - 4 ft	674037-019
SW05	S	09.30.2020 14:41	0 - 4 ft	674037-020



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: EMSU B Satellite Battery

Project ID: 012920131
Work Order Number(s): 674037

Report Date: 10.07.2020
Date Received: 10.01.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 674037

LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS04** Matrix: Soil Date Received: 10.01.2020 08:18
 Lab Sample Id: 674037-001 Date Collected: 09.30.2020 10:38 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.01.2020 17:17 % Moisture:
 Seq Number: 3138728 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	199	50.5	mg/kg	10.02.2020 05:58		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH
 Analyst: DTH Date Prep: 10.02.2020 10:00 % Moisture:
 Seq Number: 3138737 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.02.2020 15:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.02.2020 15:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.02.2020 15:05	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.02.2020 15:05	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.02.2020 15:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	10.02.2020 15:05	
o-Terphenyl	84-15-1	105	%	70-135	10.02.2020 15:05	



Certificate of Analytical Results 674037

LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS04**
 Lab Sample Id: 674037-001

Matrix: Soil
 Date Collected: 09.30.2020 10:38

Date Received: 10.01.2020 08:18
 Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 15:28

% Moisture:
 Basis: Wet Weight

Seq Number: 3138830

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.03.2020 10:20	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.03.2020 10:20	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.03.2020 10:20	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.03.2020 10:20	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.03.2020 10:20	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.03.2020 10:20	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.03.2020 10:20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.03.2020 10:20		
4-Bromofluorobenzene	460-00-4	111	%	70-130	10.03.2020 10:20		



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS05** Matrix: Soil Date Received: 10.01.2020 08:18
 Lab Sample Id: 674037-002 Date Collected: 09.30.2020 10:44 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.01.2020 17:17 % Moisture:
 Seq Number: 3138728 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	90.3	50.1	mg/kg	10.02.2020 06:04		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH
 Analyst: DTH Date Prep: 10.02.2020 10:00 % Moisture:
 Seq Number: 3138737 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.02.2020 15:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.02.2020 15:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.02.2020 15:46	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.02.2020 15:46	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.02.2020 15:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	10.02.2020 15:46	
o-Terphenyl	84-15-1	102	%	70-135	10.02.2020 15:46	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS05**
 Lab Sample Id: 674037-002

Matrix: Soil
 Date Collected: 09.30.2020 10:44

Date Received: 10.01.2020 08:18
 Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 15:28

% Moisture:
 Basis: Wet Weight

Seq Number: 3138830

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.03.2020 10:42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.03.2020 10:42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.03.2020 10:42	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.03.2020 10:42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.03.2020 10:42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.03.2020 10:42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.03.2020 10:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.03.2020 10:42	
4-Bromofluorobenzene	460-00-4	124	%	70-130	10.03.2020 10:42	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS06** Matrix: Soil Date Received: 10.01.2020 08:18
 Lab Sample Id: 674037-003 Date Collected: 09.30.2020 13:58 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.01.2020 17:17 % Moisture:
 Seq Number: 3138728 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	66.5	9.92	mg/kg	10.02.2020 06:09		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH
 Analyst: DTH Date Prep: 10.02.2020 10:00 % Moisture:
 Seq Number: 3138737 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.02.2020 16:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.02.2020 16:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.02.2020 16:06	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.02.2020 16:06	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.02.2020 16:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	10.02.2020 16:06	
o-Terphenyl	84-15-1	101	%	70-135	10.02.2020 16:06	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS06**
 Lab Sample Id: 674037-003

Matrix: Soil
 Date Collected: 09.30.2020 13:58

Date Received: 10.01.2020 08:18
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
 Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.02.2020 14:18	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.02.2020 14:18	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.02.2020 14:18	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.02.2020 14:18	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.02.2020 14:18	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.02.2020 14:18	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.02.2020 14:18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.02.2020 14:18		
4-Bromofluorobenzene	460-00-4	113	%	70-130	10.02.2020 14:18		



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EMSU B Satellite Battery

Sample Id: **FS07** Matrix: Soil Date Received: 10.01.2020 08:18
 Lab Sample Id: 674037-004 Date Collected: 09.30.2020 12:59 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.01.2020 17:17 % Moisture:
 Seq Number: 3138728 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	599	10.0	mg/kg	10.02.2020 06:14		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH
 Analyst: DTH Date Prep: 10.02.2020 10:00 % Moisture:
 Seq Number: 3138737 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.02.2020 16:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.02.2020 16:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.02.2020 16:26	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.02.2020 16:26	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.02.2020 16:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	10.02.2020 16:26	
o-Terphenyl	84-15-1	103	%	70-135	10.02.2020 16:26	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS07**
 Lab Sample Id: 674037-004

Matrix: Soil
 Date Collected: 09.30.2020 12:59

Date Received: 10.01.2020 08:18
 Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
 Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.02.2020 15:55	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.02.2020 15:55	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.02.2020 15:55	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.02.2020 15:55	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.02.2020 15:55	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.02.2020 15:55	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.02.2020 15:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	10.02.2020 15:55	
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.02.2020 15:55	



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EMSU B Satellite Battery

Sample Id: **FS08** Matrix: Soil Date Received: 10.01.2020 08:18
 Lab Sample Id: 674037-005 Date Collected: 09.30.2020 14:00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.02.2020 13:20 % Moisture:
 Seq Number: 3138826 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27.9	10.0	mg/kg	10.02.2020 14:10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH
 Analyst: DTH Date Prep: 10.02.2020 10:00 % Moisture:
 Seq Number: 3138737 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.02.2020 16:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.02.2020 16:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.02.2020 16:54	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.02.2020 16:54	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.02.2020 16:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	10.02.2020 16:54	
o-Terphenyl	84-15-1	109	%	70-135	10.02.2020 16:54	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS08**
 Lab Sample Id: 674037-005

Matrix: Soil
 Date Collected: 09.30.2020 14:00

Date Received: 10.01.2020 08:18
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
 Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.02.2020 16:18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.02.2020 16:18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.02.2020 16:18	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.02.2020 16:18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.02.2020 16:18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.02.2020 16:18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.02.2020 16:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	10.02.2020 16:18	
1,4-Difluorobenzene	540-36-3	106	%	70-130	10.02.2020 16:18	



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EMSU B Satellite Battery

Sample Id: **FS09** Matrix: Soil Date Received: 10.01.2020 08:18
 Lab Sample Id: 674037-006 Date Collected: 09.30.2020 11:01 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.02.2020 14:20 % Moisture:
 Seq Number: 3138826 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	609	10.0	mg/kg	10.02.2020 14:27		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH
 Analyst: DTH Date Prep: 10.02.2020 10:00 % Moisture:
 Seq Number: 3138737 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.02.2020 17:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.02.2020 17:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.02.2020 17:14	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.02.2020 17:14	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.02.2020 17:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	10.02.2020 17:14	
o-Terphenyl	84-15-1	107	%	70-135	10.02.2020 17:14	



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EMSU B Satellite Battery

Sample Id: **FS09**
 Lab Sample Id: 674037-006

Matrix: Soil
 Date Collected: 09.30.2020 11:01

Date Received: 10.01.2020 08:18
 Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
 Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.02.2020 16:40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.02.2020 16:40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.02.2020 16:40	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.02.2020 16:40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.02.2020 16:40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.02.2020 16:40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.02.2020 16:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	10.02.2020 16:40		
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.02.2020 16:40		



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EMSU B Satellite Battery

Sample Id: **FS10** Matrix: Soil Date Received: 10.01.2020 08:18
 Lab Sample Id: 674037-007 Date Collected: 09.30.2020 11:03 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.02.2020 14:20 % Moisture:
 Seq Number: 3138826 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	979	10.0	mg/kg	10.02.2020 14:32		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH
 Analyst: DTH Date Prep: 10.02.2020 10:00 % Moisture:
 Seq Number: 3138737 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.02.2020 17:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.02.2020 17:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.02.2020 17:34	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.02.2020 17:34	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.02.2020 17:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	10.02.2020 17:34	
o-Terphenyl	84-15-1	108	%	70-135	10.02.2020 17:34	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS10**
 Lab Sample Id: 674037-007

Matrix: Soil
 Date Collected: 09.30.2020 11:03

Date Received: 10.01.2020 08:18
 Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
 Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.02.2020 17:03	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.02.2020 17:03	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.02.2020 17:03	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	10.02.2020 17:03	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.02.2020 17:03	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.02.2020 17:03	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.02.2020 17:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	10.02.2020 17:03		
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.02.2020 17:03		



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EMSU B Satellite Battery

Sample Id: **FS11**
Lab Sample Id: 674037-008

Matrix: Soil
Date Collected: 09.30.2020 13:45

Date Received: 10.01.2020 08:18
Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 14:20

% Moisture:
Basis: Wet Weight

Seq Number: 3138826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2080	50.2	mg/kg	10.02.2020 14:37		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

Analyst: DTH

Date Prep: 10.02.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3138737

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.02.2020 17:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.02.2020 17:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.02.2020 17:55	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.02.2020 17:55	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.02.2020 17:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	10.02.2020 17:55	
o-Terphenyl	84-15-1	105	%	70-135	10.02.2020 17:55	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS11**
 Lab Sample Id: 674037-008

Matrix: Soil
 Date Collected: 09.30.2020 13:45

Date Received: 10.01.2020 08:18
 Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
 Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.02.2020 17:25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.02.2020 17:25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.02.2020 17:25	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.02.2020 17:25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.02.2020 17:25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.02.2020 17:25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.02.2020 17:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.02.2020 17:25	
4-Bromofluorobenzene	460-00-4	121	%	70-130	10.02.2020 17:25	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS12**
Lab Sample Id: 674037-009

Matrix: Soil
Date Collected: 09.30.2020 11:07

Date Received: 10.01.2020 08:18
Sample Depth: 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 14:20

% Moisture:
Basis: Wet Weight

Seq Number: 3138826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	250	9.90	mg/kg	10.02.2020 14:43		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

Analyst: DTH

Date Prep: 10.02.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3138737

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.02.2020 18:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.02.2020 18:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.02.2020 18:15	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.02.2020 18:15	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.02.2020 18:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	10.02.2020 18:15	
o-Terphenyl	84-15-1	105	%	70-135	10.02.2020 18:15	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS12**
 Lab Sample Id: 674037-009

Matrix: Soil
 Date Collected: 09.30.2020 11:07

Date Received: 10.01.2020 08:18
 Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
 Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.02.2020 17:47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.02.2020 17:47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.02.2020 17:47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.02.2020 17:47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.02.2020 17:47	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.02.2020 17:47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.02.2020 17:47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	10.02.2020 17:47		
1,4-Difluorobenzene	540-36-3	106	%	70-130	10.02.2020 17:47		



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS13**
Lab Sample Id: 674037-010

Matrix: Soil
Date Collected: 09.30.2020 13:47

Date Received: 10.01.2020 08:18
Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 14:20

% Moisture:
Basis: Wet Weight

Seq Number: 3138826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	422	49.7	mg/kg	10.02.2020 14:59		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

Analyst: DTH

Date Prep: 10.02.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3138737

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.02.2020 18:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.02.2020 18:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.02.2020 18:35	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.02.2020 18:35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.02.2020 18:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	10.02.2020 18:35	
o-Terphenyl	84-15-1	107	%	70-135	10.02.2020 18:35	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS13**
 Lab Sample Id: 674037-010

Matrix: Soil
 Date Collected: 09.30.2020 13:47

Date Received: 10.01.2020 08:18
 Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
 Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.02.2020 18:10	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.02.2020 18:10	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.02.2020 18:10	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.02.2020 18:10	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.02.2020 18:10	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.02.2020 18:10	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.02.2020 18:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.02.2020 18:10		
4-Bromofluorobenzene	460-00-4	114	%	70-130	10.02.2020 18:10		



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS14** Matrix: Soil Date Received: 10.01.2020 08:18
 Lab Sample Id: 674037-011 Date Collected: 09.30.2020 11:13 Sample Depth: 3.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.02.2020 14:20 % Moisture:
 Seq Number: 3138826 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	179	49.9	mg/kg	10.02.2020 15:05		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH
 Analyst: DTH Date Prep: 10.02.2020 10:00 % Moisture:
 Seq Number: 3138737 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.02.2020 18:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.02.2020 18:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.02.2020 18:55	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.02.2020 18:55	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.02.2020 18:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	10.02.2020 18:55	
o-Terphenyl	84-15-1	102	%	70-135	10.02.2020 18:55	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS14**
 Lab Sample Id: 674037-011

Matrix: Soil
 Date Collected: 09.30.2020 11:13

Date Received: 10.01.2020 08:18
 Sample Depth: 3.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
 Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.02.2020 19:30	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.02.2020 19:30	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.02.2020 19:30	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.02.2020 19:30	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.02.2020 19:30	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.02.2020 19:30	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.02.2020 19:30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	10.02.2020 19:30		
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.02.2020 19:30		



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EMSU B Satellite Battery

Sample Id: **FS15**
Lab Sample Id: 674037-012

Matrix: Soil
Date Collected: 09.30.2020 14:38

Date Received: 10.01.2020 08:18
Sample Depth: 3.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 14:20

% Moisture:
Basis: Wet Weight

Seq Number: 3138826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	192	9.94	mg/kg	10.02.2020 16:17		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

Analyst: DTH

Date Prep: 10.02.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3138732

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.02.2020 17:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.02.2020 17:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.02.2020 17:14	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.02.2020 17:14	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.02.2020 17:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	10.02.2020 17:14	
o-Terphenyl	84-15-1	99	%	70-135	10.02.2020 17:14	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS15**
 Lab Sample Id: 674037-012

Matrix: Soil
 Date Collected: 09.30.2020 14:38

Date Received: 10.01.2020 08:18
 Sample Depth: 3.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
 Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.02.2020 19:52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.02.2020 19:52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.02.2020 19:52	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.02.2020 19:52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.02.2020 19:52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.02.2020 19:52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.02.2020 19:52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	118	%	70-130	10.02.2020 19:52		
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.02.2020 19:52		



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EMSU B Satellite Battery

Sample Id: **FS16** Matrix: Soil Date Received: 10.01.2020 08:18
 Lab Sample Id: 674037-013 Date Collected: 09.30.2020 14:39 Sample Depth: 3.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.02.2020 14:20 % Moisture:
 Seq Number: 3138826 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	146	49.9	mg/kg	10.02.2020 16:22		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH
 Analyst: DTH Date Prep: 10.02.2020 10:00 % Moisture:
 Seq Number: 3138732 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.02.2020 17:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.02.2020 17:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.02.2020 17:34	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.02.2020 17:34	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.02.2020 17:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	10.02.2020 17:34	
o-Terphenyl	84-15-1	99	%	70-135	10.02.2020 17:34	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS16**
Lab Sample Id: 674037-013

Matrix: Soil
Date Collected: 09.30.2020 14:39

Date Received: 10.01.2020 08:18
Sample Depth: 3.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.02.2020 20:15	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.02.2020 20:15	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.02.2020 20:15	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.02.2020 20:15	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.02.2020 20:15	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.02.2020 20:15	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.02.2020 20:15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	10.02.2020 20:15		
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.02.2020 20:15		



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS17** Matrix: Soil Date Received: 10.01.2020 08:18
 Lab Sample Id: 674037-014 Date Collected: 09.30.2020 12:47 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.02.2020 14:20 % Moisture:
 Seq Number: 3138826 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	251	49.7	mg/kg	10.02.2020 16:28		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH
 Analyst: DTH Date Prep: 10.02.2020 10:00 % Moisture:
 Seq Number: 3138732 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.02.2020 17:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.02.2020 17:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.02.2020 17:55	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.02.2020 17:55	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.02.2020 17:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	10.02.2020 17:55	
o-Terphenyl	84-15-1	101	%	70-135	10.02.2020 17:55	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS17**
Lab Sample Id: 674037-014

Matrix: Soil
Date Collected: 09.30.2020 12:47

Date Received: 10.01.2020 08:18
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.02.2020 20:37	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.02.2020 20:37	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.02.2020 20:37	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	10.02.2020 20:37	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.02.2020 20:37	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.02.2020 20:37	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.02.2020 20:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	10.02.2020 20:37	
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.02.2020 20:37	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS18**
Lab Sample Id: 674037-015

Matrix: Soil
Date Collected: 09.30.2020 14:43

Date Received: 10.01.2020 08:18
Sample Depth: 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 14:20

% Moisture:
Basis: Wet Weight

Seq Number: 3138826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	123	49.5	mg/kg	10.02.2020 16:33		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

Analyst: DTH

Date Prep: 10.02.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3138732

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.02.2020 18:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.02.2020 18:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.02.2020 18:15	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.02.2020 18:15	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.02.2020 18:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	10.02.2020 18:15	
o-Terphenyl	84-15-1	97	%	70-135	10.02.2020 18:15	



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS18**
 Lab Sample Id: 674037-015

Matrix: Soil
 Date Collected: 09.30.2020 14:43

Date Received: 10.01.2020 08:18
 Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
 Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.02.2020 21:00	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.02.2020 21:00	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.02.2020 21:00	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	10.02.2020 21:00	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.02.2020 21:00	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.02.2020 21:00	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.02.2020 21:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	122	%	70-130	10.02.2020 21:00		
1,4-Difluorobenzene	540-36-3	108	%	70-130	10.02.2020 21:00		



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LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS19**
Lab Sample Id: 674037-016

Matrix: Soil
Date Collected: 09.30.2020 14:44

Date Received: 10.01.2020 08:18
Sample Depth: 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 14:20

% Moisture:
Basis: Wet Weight

Seq Number: 3138826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	144	49.9	mg/kg	10.02.2020 16:50		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

Analyst: DTH

Date Prep: 10.02.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3138732

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.02.2020 18:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.02.2020 18:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.02.2020 18:35	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.02.2020 18:35	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.02.2020 18:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	10.02.2020 18:35	
o-Terphenyl	84-15-1	98	%	70-135	10.02.2020 18:35	



Certificate of Analytical Results 674037

LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS19**
Lab Sample Id: 674037-016

Matrix: Soil
Date Collected: 09.30.2020 14:44

Date Received: 10.01.2020 08:18
Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.02.2020 21:22	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.02.2020 21:22	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.02.2020 21:22	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.02.2020 21:22	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.02.2020 21:22	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.02.2020 21:22	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.02.2020 21:22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	10.02.2020 21:22		
1,4-Difluorobenzene	540-36-3	108	%	70-130	10.02.2020 21:22		



Certificate of Analytical Results 674037

LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS20**
Lab Sample Id: 674037-017

Matrix: Soil
Date Collected: 09.30.2020 14:45

Date Received: 10.01.2020 08:18
Sample Depth: 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 14:20

% Moisture:
Basis: Wet Weight

Seq Number: 3138826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	54.5	50.4	mg/kg	10.02.2020 16:55		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

Analyst: DTH

Date Prep: 10.02.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3138732

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	10.02.2020 11:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	10.02.2020 11:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	10.02.2020 11:05	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	10.02.2020 11:05	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	10.02.2020 11:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	10.02.2020 11:05	
o-Terphenyl	84-15-1	97	%	70-135	10.02.2020 11:05	



Certificate of Analytical Results 674037

LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **FS20**
Lab Sample Id: 674037-017

Matrix: Soil
Date Collected: 09.30.2020 14:45

Date Received: 10.01.2020 08:18
Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.02.2020 21:44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.02.2020 21:44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.02.2020 21:44	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.02.2020 21:44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.02.2020 21:44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.02.2020 21:44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.02.2020 21:44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	10.02.2020 21:44		
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.02.2020 21:44		



Certificate of Analytical Results 674037

LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **SW03**
Lab Sample Id: 674037-018

Matrix: Soil
Date Collected: 09.30.2020 14:16

Date Received: 10.01.2020 08:18
Sample Depth: 0 - 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 14:20

% Moisture:
Basis: Wet Weight

Seq Number: 3138826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	407	49.8	mg/kg	10.02.2020 17:12		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

Analyst: DTH

Date Prep: 10.02.2020 10:00

% Moisture:
Basis: Wet Weight

Seq Number: 3138732

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	10.02.2020 13:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	10.02.2020 13:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	10.02.2020 13:45	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	10.02.2020 13:45	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	10.02.2020 13:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	10.02.2020 13:45	
o-Terphenyl	84-15-1	101	%	70-135	10.02.2020 13:45	



Certificate of Analytical Results 674037

LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **SW03**
 Lab Sample Id: 674037-018

Matrix: Soil
 Date Collected: 09.30.2020 14:16

Date Received: 10.01.2020 08:18
 Sample Depth: 0 - 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
 Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.02.2020 22:07	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.02.2020 22:07	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.02.2020 22:07	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	10.02.2020 22:07	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.02.2020 22:07	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.02.2020 22:07	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.02.2020 22:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.02.2020 22:07		
4-Bromofluorobenzene	460-00-4	118	%	70-130	10.02.2020 22:07		



Certificate of Analytical Results 674037

LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **SW04**
 Lab Sample Id: 674037-019

Matrix: Soil
 Date Collected: 09.30.2020 14:40

Date Received: 10.01.2020 08:18
 Sample Depth: 0 - 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 14:20

% Moisture:
 Basis: Wet Weight

Seq Number: 3138826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	81.7	9.94	mg/kg	10.02.2020 17:17		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

Analyst: DTH

Date Prep: 10.02.2020 10:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3138732

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.02.2020 14:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.02.2020 14:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.02.2020 14:05	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.02.2020 14:05	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.02.2020 14:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	10.02.2020 14:05	
o-Terphenyl	84-15-1	102	%	70-135	10.02.2020 14:05	



Certificate of Analytical Results 674037

LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **SW04**
 Lab Sample Id: 674037-019

Matrix: Soil
 Date Collected: 09.30.2020 14:40

Date Received: 10.01.2020 08:18
 Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
 Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.02.2020 22:29	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.02.2020 22:29	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.02.2020 22:29	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.02.2020 22:29	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.02.2020 22:29	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.02.2020 22:29	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.02.2020 22:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	10.02.2020 22:29	
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.02.2020 22:29	



Certificate of Analytical Results 674037

LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **SW05** Matrix: Soil Date Received: 10.01.2020 08:18
 Lab Sample Id: 674037-020 Date Collected: 09.30.2020 14:41 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 10.02.2020 14:20 % Moisture:
 Seq Number: 3138826 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	133	49.8	mg/kg	10.02.2020 17:23		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH
 Analyst: DTH Date Prep: 10.02.2020 10:00 % Moisture:
 Seq Number: 3138732 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.02.2020 14:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.02.2020 14:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.02.2020 14:25	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.02.2020 14:25	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.02.2020 14:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	10.02.2020 14:25	
o-Terphenyl	84-15-1	101	%	70-135	10.02.2020 14:25	



Certificate of Analytical Results 674037

LT Environmental, Inc., Arvada, CO

EMSU B Satellite Battery

Sample Id: **SW05**
 Lab Sample Id: 674037-020

Matrix: Soil
 Date Collected: 09.30.2020 14:41

Date Received: 10.01.2020 08:18
 Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.02.2020 10:11

% Moisture:
 Basis: Wet Weight

Seq Number: 3138761

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.02.2020 22:52	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.02.2020 22:52	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.02.2020 22:52	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	10.02.2020 22:52	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.02.2020 22:52	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.02.2020 22:52	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.02.2020 22:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	10.02.2020 22:52	
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.02.2020 22:52	

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. **ND** Not Detected.

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



LT Environmental, Inc.
EMSU B Satellite Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3138728

MB Sample Id: 7712535-1-BLK

Matrix: Solid

LCS Sample Id: 7712535-1-BKS

Prep Method: E300P

Date Prep: 10.01.2020

LCSD Sample Id: 7712535-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	249	100	249	100	90-110	0	20	mg/kg	10.02.2020 03:36	

Analytical Method: Chloride by EPA 300

Seq Number: 3138826

MB Sample Id: 7712536-1-BLK

Matrix: Solid

LCS Sample Id: 7712536-1-BKS

Prep Method: E300P

Date Prep: 10.02.2020

LCSD Sample Id: 7712536-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	250	100	251	100	90-110	0	20	mg/kg	10.02.2020 13:59	

Analytical Method: Chloride by EPA 300

Seq Number: 3138728

Parent Sample Id: 674035-011

Matrix: Soil

MS Sample Id: 674035-011 S

Prep Method: E300P

Date Prep: 10.01.2020

MSD Sample Id: 674035-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1050	202	1240	94	1240	94	90-110	0	20	mg/kg	10.02.2020 03:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3138728

Parent Sample Id: 674035-020

Matrix: Soil

MS Sample Id: 674035-020 S

Prep Method: E300P

Date Prep: 10.01.2020

MSD Sample Id: 674035-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1720	200	1940	110	1930	106	90-110	1	20	mg/kg	10.02.2020 05:09	

Analytical Method: Chloride by EPA 300

Seq Number: 3138826

Parent Sample Id: 674037-005

Matrix: Soil

MS Sample Id: 674037-005 S

Prep Method: E300P

Date Prep: 10.02.2020

MSD Sample Id: 674037-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.9	200	226	99	226	99	90-110	0	20	mg/kg	10.02.2020 14:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3138826

Parent Sample Id: 674037-015

Matrix: Soil

MS Sample Id: 674037-015 S

Prep Method: E300P

Date Prep: 10.02.2020

MSD Sample Id: 674037-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	123	199	311	94	312	95	90-110	0	20	mg/kg	10.02.2020 16:39	

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



LT Environmental, Inc.
EMSU B Satellite Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3138732

MB Sample Id: 7712528-1-BLK

Matrix: Solid

LCS Sample Id: 7712528-1-BKS

Prep Method: SW8015P

Date Prep: 10.02.2020

LCSD Sample Id: 7712528-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	921	92	906	91	70-135	2	35	mg/kg	10.02.2020 10:04	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	948	95	70-135	8	35	mg/kg	10.02.2020 10:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		115		111		70-135	%	10.02.2020 10:04
o-Terphenyl	90		104		96		70-135	%	10.02.2020 10:04

Analytical Method: TPH by SW8015 Mod

Seq Number: 3138737

MB Sample Id: 7712529-1-BLK

Matrix: Solid

LCS Sample Id: 7712529-1-BKS

Prep Method: SW8015P

Date Prep: 10.02.2020

LCSD Sample Id: 7712529-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1030	103	1070	107	70-135	4	35	mg/kg	10.02.2020 10:25	
Diesel Range Organics (DRO)	<50.0	1000	1080	108	1120	112	70-135	4	35	mg/kg	10.02.2020 10:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		123		125		70-135	%	10.02.2020 10:25
o-Terphenyl	96		107		110		70-135	%	10.02.2020 10:25

Analytical Method: TPH by SW8015 Mod

Seq Number: 3138732

Matrix: Solid

MB Sample Id: 7712528-1-BLK

Prep Method: SW8015P

Date Prep: 10.02.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.02.2020 13:05	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3138737

Matrix: Solid

MB Sample Id: 7712529-1-BLK

Prep Method: SW8015P

Date Prep: 10.02.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.02.2020 11:05	

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



LT Environmental, Inc.
EMSU B Satellite Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3138732

Matrix: Soil

Prep Method: SW8015P

Date Prep: 10.02.2020

Parent Sample Id: 674037-017

MS Sample Id: 674037-017 S

MSD Sample Id: 674037-017 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)	<49.8	995	1030	104	1020	102	70-135	1	35	mg/kg	10.02.2020 11:25	
Diesel Range Organics (DRO)	<49.8	995	1130	114	1110	111	70-135	2	35	mg/kg	10.02.2020 11:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		123		70-135	%	10.02.2020 11:25
o-Terphenyl	112		111		70-135	%	10.02.2020 11:25

Analytical Method: TPH by SW8015 Mod

Seq Number: 3138737

Matrix: Soil

Prep Method: SW8015P

Date Prep: 10.02.2020

Parent Sample Id: 674035-021

MS Sample Id: 674035-021 S

MSD Sample Id: 674035-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	995	1140	115	1120	111	70-135	2	35	mg/kg	10.02.2020 11:45	
Diesel Range Organics (DRO)	<49.8	995	1200	121	1190	118	70-135	1	35	mg/kg	10.02.2020 11:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		132		70-135	%	10.02.2020 11:45
o-Terphenyl	118		115		70-135	%	10.02.2020 11:45

Analytical Method: BTEX by EPA 8021B

Seq Number: 3138761

Matrix: Solid

Prep Method: SW5035A

Date Prep: 10.02.2020

MB Sample Id: 7712547-1-BLK

LCS Sample Id: 7712547-1-BKS

LCSD Sample Id: 7712547-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.108	108	0.106	106	70-130	2	35	mg/kg	10.02.2020 12:43	
Toluene	<0.00200	0.100	0.101	101	0.0992	99	70-130	2	35	mg/kg	10.02.2020 12:43	
Ethylbenzene	<0.00200	0.100	0.105	105	0.103	103	71-129	2	35	mg/kg	10.02.2020 12:43	
m,p-Xylenes	<0.00400	0.200	0.210	105	0.208	104	70-135	1	35	mg/kg	10.02.2020 12:43	
o-Xylene	<0.00200	0.100	0.105	105	0.104	104	71-133	1	35	mg/kg	10.02.2020 12:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		100		103		70-130	%	10.02.2020 12:43
4-Bromofluorobenzene	115		110		113		70-130	%	10.02.2020 12:43

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



LT Environmental, Inc.
EMSU B Satellite Battery

Analytical Method: BTEX by EPA 8021B

Seq Number: 3138830

Matrix: Solid

Prep Method: SW5035A

Date Prep: 10.02.2020

MB Sample Id: 7712551-1-BLK

LCS Sample Id: 7712551-1-BKS

LCSD Sample Id: 7712551-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0961	96	0.0963	96	70-130	0	35	mg/kg	10.03.2020 00:34	
Toluene	<0.00200	0.100	0.0907	91	0.0920	92	70-130	1	35	mg/kg	10.03.2020 00:34	
Ethylbenzene	<0.00200	0.100	0.0930	93	0.0945	95	71-129	2	35	mg/kg	10.03.2020 00:34	
m,p-Xylenes	<0.00400	0.200	0.191	96	0.189	95	70-135	1	35	mg/kg	10.03.2020 00:34	
o-Xylene	<0.00200	0.100	0.0957	96	0.0942	94	71-133	2	35	mg/kg	10.03.2020 00:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		99		103		70-130	%	10.03.2020 00:34
4-Bromofluorobenzene	106		113		108		70-130	%	10.03.2020 00:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3138761

Matrix: Soil

Prep Method: SW5035A

Date Prep: 10.02.2020

Parent Sample Id: 674037-003

MS Sample Id: 674037-003 S

MSD Sample Id: 674037-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.106	106	0.0978	97	70-130	8	35	mg/kg	10.02.2020 13:27	
Toluene	<0.00200	0.100	0.0976	98	0.0910	90	70-130	7	35	mg/kg	10.02.2020 13:27	
Ethylbenzene	<0.00200	0.100	0.106	106	0.0948	94	71-129	11	35	mg/kg	10.02.2020 13:27	
m,p-Xylenes	<0.00400	0.200	0.211	106	0.193	96	70-135	9	35	mg/kg	10.02.2020 13:27	
o-Xylene	<0.00200	0.100	0.104	104	0.0950	94	71-133	9	35	mg/kg	10.02.2020 13:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		102		70-130	%	10.02.2020 13:27
4-Bromofluorobenzene	109		112		70-130	%	10.02.2020 13:27

Analytical Method: BTEX by EPA 8021B

Seq Number: 3138830

Matrix: Soil

Prep Method: SW5035A

Date Prep: 10.02.2020

Parent Sample Id: 674035-008

MS Sample Id: 674035-008 S

MSD Sample Id: 674035-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.106	107	0.109	110	70-130	3	35	mg/kg	10.03.2020 01:19	
Toluene	<0.00198	0.0992	0.102	103	0.0991	100	70-130	3	35	mg/kg	10.03.2020 01:19	
Ethylbenzene	<0.00198	0.0992	0.107	108	0.102	103	71-129	5	35	mg/kg	10.03.2020 01:19	
m,p-Xylenes	<0.00397	0.198	0.211	107	0.208	105	70-135	1	35	mg/kg	10.03.2020 01:19	
o-Xylene	<0.00198	0.0992	0.103	104	0.104	105	71-133	1	35	mg/kg	10.03.2020 01:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		100		70-130	%	10.03.2020 01:19
4-Bromofluorobenzene	110		112		70-130	%	10.03.2020 01:19

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: 624037

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)

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Page 1 of 2

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

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

Project Name:	EMSU B Satellite Battery	Turn Around	
Project Number:	012920131	Routine	☒
P.O. Number:	Lea	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT	Temp Blank:	☒ Yes	No	Wet Ice:	☒ Yes	No
Temperature (°C):	1.2/1.0	Thermometer ID				
Received Intact:	☒ Yes	No	Correction Factor: -0.2			
Cooler Custody Seals:	Yes	☒ No	Total Containers: 22			
Sample Custody Seals:	Yes	☒ No				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	ANALYSIS REQUEST										Work Order Notes
					Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)							
FS04	S	9/30/2020	10:38	1.5'	1	X	X	X							Composite
FS05	S	9/30/2020	10:44	1.5'	1	X	X	X							Composite
FS06	S	9/30/2020	13:58	2'	1	X	X	X							Composite
FS07	S	9/30/2020	12:59	1.5'	1	X	X	X							Composite
FS08	S	9/30/2020	14:00	2'	1	X	X	X							Composite
FS09	S	9/30/2020	11:01	1.5'	1	X	X	X							Composite
FS10	S	9/30/2020	11:03	1.5'	1	X	X	X							Composite
FS11	S	9/30/2020	13:45	2.5'	1	X	X	X							Composite
FS12	S	9/30/2020	11:07	1.5'	1	X	X	X							Composite
FS13	S	9/30/2020	13:47	2.5'	1	X	X	X							Composite

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	10:12 08/18			



Chain of Custody

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 (770-449-8600) Tampa, FL (813-620-2000)

Work Order No: 674037

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Page 2 of 2

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

Project Name:	EMSU B Satellite Battery	Turn Around	
Project Number:	12920131	Routine	
P.O. Number:	Lea	Rush:	
Sampler's Name:	William Mather	Due Date:	

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

Temp Blank:	☒ Yes	☐ No	Wet Ice:	☐ Yes	☐ No
Temperature (°C):	1.2/1.6		Thermometer ID	1-NM-007	
Received Intact:	☒ Yes	☐ No	Correction Factor:	0.0	
Cooler Custody Seals:	☒ Yes	☐ No	N/A		
Sample Custody Seals:	☒ Yes	☐ No	N/A		
Total Containers:	20				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST	Work Order Notes
FS14	S	9/30/2020	11:13	3.5'	1	X	X	X		Composite
FS15	S	9/30/2020	14:38	3.5'	1	X	X	X		Composite
FS16	S	9/30/2020	14:39	3.5'	1	X	X	X		Composite
FS17	S	9/30/2020	12:47	4'	1	X	X	X		Composite
FS18	S	9/30/2020	14:43	1.5'	1	X	X	X		Composite
FS19	S	9/30/2020	14:44	1.5'	1	X	X	X		Composite
FS20	S	9/30/2020	14:45	1.5'	1	X	X	X		Composite
SW03	S	9/30/2020	14:16	0-2.5'	1	X	X	X		Composite
SW04	S	9/30/2020	14:40	0-4'	1	X	X	X		Composite
SW05	S	9/30/2020	14:41	0-4'	1	X	X	X		Composite

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 A1 Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

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

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.01.2020 08.18.00 AM

Work Order #: 674037

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 10.01.2020

Checklist reviewed by:



Jessica Kramer

Date: 10.02.2020

Certificate of Analysis Summary 674900



LT Environmental, Inc., Arvada, CO

Project Name: EMSU B 13 Satellite Battery

Project Id: 012920131
Contact: Dan Moir
Project Location: Lea County

Date Received in Lab: Mon 10.12.2020 14:11
Report Date: 10.13.2020 12:15
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	674900-001	674900-002	674900-003	674900-004	674900-005	
	<i>Field Id:</i>	FS09 A	FS10 A	FS11 A	SW06	SW07	
	<i>Depth:</i>	2.5- ft	2.5- ft	3- ft	0-2.5 ft	0-3 ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	10.12.2020 10:38	10.12.2020 10:32	10.12.2020 10:34	10.12.2020 11:14	10.12.2020 11:16	
BTEX by EPA 8021B	<i>Extracted:</i>	10.12.2020 15:24	10.12.2020 15:24	10.12.2020 15:24	10.12.2020 15:24	10.12.2020 15:24	
	<i>Analyzed:</i>	10.12.2020 21:21	10.12.2020 21:43	10.12.2020 22:06	10.12.2020 22:29	10.12.2020 22:51	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	
Toluene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	
Ethylbenzene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	
m,p-Xylenes		<0.00403 0.00403	<0.00402 0.00402	<0.00400 0.00400	<0.00400 0.00400	<0.00398 0.00398	
o-Xylene		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	
Total Xylenes		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	
Total BTEX		<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	
Chloride by EPA 300	<i>Extracted:</i>	10.12.2020 15:02	10.12.2020 15:02	10.12.2020 15:02	10.12.2020 15:02	10.12.2020 15:02	
	<i>Analyzed:</i>	10.12.2020 18:33	10.12.2020 18:49	10.12.2020 18:55	10.12.2020 19:11	10.12.2020 19:17	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		166 9.98	324 10.0	40.6 10.0	323 9.94	118 9.92	
TPH by SW8015 Mod	<i>Extracted:</i>	10.12.2020 17:00	10.12.2020 17:00	10.12.2020 17:00	10.12.2020 17:00	10.12.2020 17:00	
	<i>Analyzed:</i>	10.12.2020 17:48	10.12.2020 18:08	10.12.2020 18:28	10.12.2020 18:48	10.12.2020 19:08	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.2 50.2	
Diesel Range Organics (DRO)		<49.8 49.8	<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.2 50.2	
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.2 50.2	
Total GRO-DRO		<49.8 49.8	<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.2 50.2	
Total TPH		<49.8 49.8	<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.2 50.2	

BRL - Below Reporting Limit

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



Analytical Report 674900

for

LT Environmental, Inc.

Project Manager: Dan Moir

EMSU B 13 Satellite Battery

012920131

10.13.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



10.13.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **674900**

EMSU B 13 Satellite Battery

Project Address: Lea County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 674900. 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 Eurofins Xenco, LLC. 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. 674900 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 674900****LT Environmental, Inc., Arvada, CO**

EMSU B 13 Satellite Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS09 A	S	10.12.2020 10:38	2.5 ft	674900-001
FS10 A	S	10.12.2020 10:32	2.5 ft	674900-002
FS11 A	S	10.12.2020 10:34	3 ft	674900-003
SW06	S	10.12.2020 11:14	0 - 2.5 ft	674900-004
SW07	S	10.12.2020 11:16	0 - 3 ft	674900-005



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *EMSU B 13 Satellite Battery*

Project ID: 012920131
Work Order Number(s): 674900

Report Date: 10.13.2020
Date Received: 10.12.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 674900

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **FS09 A**
 Lab Sample Id: 674900-001

Matrix: Soil
 Date Collected: 10.12.2020 10:38

Date Received: 10.12.2020 14:11
 Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.12.2020 15:02

% Moisture:
 Basis: Wet Weight

Seq Number: 3139536

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	166	9.98	mg/kg	10.12.2020 18:33		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

Analyst: DTH

Date Prep: 10.12.2020 17:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3139535

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.12.2020 17:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.12.2020 17:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.12.2020 17:48	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.12.2020 17:48	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.12.2020 17:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	10.12.2020 17:48	
o-Terphenyl	84-15-1	94	%	70-135	10.12.2020 17:48	



Certificate of Analytical Results 674900

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **FS09 A**
 Lab Sample Id: 674900-001

Matrix: Soil
 Date Collected: 10.12.2020 10:38

Date Received: 10.12.2020 14:11
 Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.12.2020 15:24

% Moisture:
 Basis: Wet Weight

Seq Number: 3139517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.12.2020 21:21	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.12.2020 21:21	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.12.2020 21:21	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.12.2020 21:21	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.12.2020 21:21	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.12.2020 21:21	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.12.2020 21:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	10.12.2020 21:21	
1,4-Difluorobenzene	540-36-3	107	%	70-130	10.12.2020 21:21	



Certificate of Analytical Results 674900

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **FS10 A**
 Lab Sample Id: 674900-002

Matrix: Soil
 Date Collected: 10.12.2020 10:32

Date Received: 10.12.2020 14:11
 Sample Depth: 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.12.2020 15:02

% Moisture:
 Basis: Wet Weight

Seq Number: 3139536

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	324	10.0	mg/kg	10.12.2020 18:49		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

Analyst: DTH

Date Prep: 10.12.2020 17:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3139535

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.12.2020 18:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.12.2020 18:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.12.2020 18:08	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	10.12.2020 18:08	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.12.2020 18:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	10.12.2020 18:08	
o-Terphenyl	84-15-1	89	%	70-135	10.12.2020 18:08	



Certificate of Analytical Results 674900

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **FS10 A**
 Lab Sample Id: 674900-002

Matrix: Soil
 Date Collected: 10.12.2020 10:32

Date Received: 10.12.2020 14:11
 Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.12.2020 15:24

% Moisture:
 Basis: Wet Weight

Seq Number: 3139517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.12.2020 21:43	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.12.2020 21:43	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.12.2020 21:43	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.12.2020 21:43	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.12.2020 21:43	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.12.2020 21:43	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.12.2020 21:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.12.2020 21:43	
4-Bromofluorobenzene	460-00-4	115	%	70-130	10.12.2020 21:43	



Certificate of Analytical Results 674900

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **FS11 A**
 Lab Sample Id: 674900-003

Matrix: Soil
 Date Collected: 10.12.2020 10:34

Date Received: 10.12.2020 14:11
 Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.12.2020 15:02

% Moisture:
 Basis: Wet Weight

Seq Number: 3139536

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	40.6	10.0	mg/kg	10.12.2020 18:55		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

Analyst: DTH

Date Prep: 10.12.2020 17:00

% Moisture:
 Basis: Wet Weight

Seq Number: 3139535

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.12.2020 18:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.12.2020 18:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.12.2020 18:28	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	10.12.2020 18:28	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.12.2020 18:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	10.12.2020 18:28	
o-Terphenyl	84-15-1	92	%	70-135	10.12.2020 18:28	



Certificate of Analytical Results 674900

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **FS11 A**
 Lab Sample Id: 674900-003

Matrix: Soil
 Date Collected: 10.12.2020 10:34

Date Received: 10.12.2020 14:11
 Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.12.2020 15:24

% Moisture:
 Basis: Wet Weight

Seq Number: 3139517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.12.2020 22:06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.12.2020 22:06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.12.2020 22:06	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.12.2020 22:06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.12.2020 22:06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.12.2020 22:06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.12.2020 22:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	10.12.2020 22:06	
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.12.2020 22:06	



Certificate of Analytical Results 674900

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SW06**
Lab Sample Id: 674900-004

Matrix: Soil
Date Collected: 10.12.2020 11:14

Date Received: 10.12.2020 14:11
Sample Depth: 0 - 2.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.12.2020 15:02

% Moisture:
Basis: Wet Weight

Seq Number: 3139536

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	323	9.94	mg/kg	10.12.2020 19:11		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

Analyst: DTH

Date Prep: 10.12.2020 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3139535

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.12.2020 18:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.12.2020 18:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.12.2020 18:48	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	10.12.2020 18:48	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.12.2020 18:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	10.12.2020 18:48	
o-Terphenyl	84-15-1	88	%	70-135	10.12.2020 18:48	



Certificate of Analytical Results 674900

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SW06**
 Lab Sample Id: 674900-004

Matrix: Soil
 Date Collected: 10.12.2020 11:14

Date Received: 10.12.2020 14:11
 Sample Depth: 0 - 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.12.2020 15:24

% Moisture:
 Basis: Wet Weight

Seq Number: 3139517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.12.2020 22:29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.12.2020 22:29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.12.2020 22:29	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.12.2020 22:29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.12.2020 22:29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.12.2020 22:29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.12.2020 22:29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	10.12.2020 22:29		
1,4-Difluorobenzene	540-36-3	107	%	70-130	10.12.2020 22:29		



Certificate of Analytical Results 674900

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SW07**
Lab Sample Id: 674900-005

Matrix: Soil
Date Collected: 10.12.2020 11:16

Date Received: 10.12.2020 14:11
Sample Depth: 0 - 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 10.12.2020 15:02

% Moisture:
Basis: Wet Weight

Seq Number: 3139536

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	118	9.92	mg/kg	10.12.2020 19:17		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

Analyst: DTH

Date Prep: 10.12.2020 17:00

% Moisture:
Basis: Wet Weight

Seq Number: 3139535

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	10.12.2020 19:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	10.12.2020 19:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	10.12.2020 19:08	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	10.12.2020 19:08	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	10.12.2020 19:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	10.12.2020 19:08	
o-Terphenyl	84-15-1	91	%	70-135	10.12.2020 19:08	



Certificate of Analytical Results 674900

LT Environmental, Inc., Arvada, CO

EMSU B 13 Satellite Battery

Sample Id: **SW07**
 Lab Sample Id: 674900-005

Matrix: Soil
 Date Collected: 10.12.2020 11:16

Date Received: 10.12.2020 14:11
 Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 10.12.2020 15:24

% Moisture:
 Basis: Wet Weight

Seq Number: 3139517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.12.2020 22:51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.12.2020 22:51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.12.2020 22:51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.12.2020 22:51	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.12.2020 22:51	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.12.2020 22:51	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.12.2020 22:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	10.12.2020 22:51	
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.12.2020 22:51	

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. **ND** Not Detected.

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



LT Environmental, Inc.
EMSU B 13 Satellite Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3139536

MB Sample Id: 7713095-1-BLK

Matrix: Solid

LCS Sample Id: 7713095-1-BKS

Prep Method: E300P

Date Prep: 10.12.2020

LCSD Sample Id: 7713095-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	261	104	262	105	90-110	0	20	mg/kg	10.12.2020 17:05	

Analytical Method: Chloride by EPA 300

Seq Number: 3139536

Parent Sample Id: 674861-021

Matrix: Soil

MS Sample Id: 674861-021 S

Prep Method: E300P

Date Prep: 10.12.2020

MSD Sample Id: 674861-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.90	198	202	102	202	102	90-110	0	20	mg/kg	10.12.2020 17:22	

Analytical Method: Chloride by EPA 300

Seq Number: 3139536

Parent Sample Id: 674900-001

Matrix: Soil

MS Sample Id: 674900-001 S

Prep Method: E300P

Date Prep: 10.12.2020

MSD Sample Id: 674900-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	166	200	368	101	368	101	90-110	0	20	mg/kg	10.12.2020 18:38	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3139535

MB Sample Id: 7713134-1-BLK

Matrix: Solid

LCS Sample Id: 7713134-1-BKS

Prep Method: SW8015P

Date Prep: 10.12.2020

LCSD Sample Id: 7713134-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	844	84	848	85	70-135	0	35	mg/kg	10.12.2020 16:07	
Diesel Range Organics (DRO)	<50.0	1000	1020	102	1010	101	70-135	1	35	mg/kg	10.12.2020 16:07	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		108		109		70-135	%	10.12.2020 16:07
o-Terphenyl	122		100		101		70-135	%	10.12.2020 16:07

Analytical Method: TPH by SW8015 Mod

Seq Number: 3139535

Matrix: Solid

MB Sample Id: 7713134-1-BLK

Prep Method: SW8015P

Date Prep: 10.12.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.12.2020 15:47	

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



LT Environmental, Inc.
EMSU B 13 Satellite Battery

Analytical Method: TPH by SW8015 Mod

Seq Number: 3139535

Parent Sample Id: 674928-001

Matrix: Soil

MS Sample Id: 674928-001 S

Prep Method: SW8015P

Date Prep: 10.12.2020

MSD Sample Id: 674928-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	872	86	846	85	70-135	3	35	mg/kg	10.12.2020 20:50	
Diesel Range Organics (DRO)	<50.3	1010	983	97	958	96	70-135	3	35	mg/kg	10.12.2020 20:50	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		104		70-135	%	10.12.2020 20:50
o-Terphenyl	75		72		70-135	%	10.12.2020 20:50

Analytical Method: BTEX by EPA 8021B

Seq Number: 3139517

MB Sample Id: 7713096-1-BLK

Matrix: Solid

LCS Sample Id: 7713096-1-BKS

Prep Method: SW5035A

Date Prep: 10.12.2020

LCSD Sample Id: 7713096-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.101	101	0.0970	97	70-130	4	35	mg/kg	10.12.2020 19:16	
Toluene	<0.00200	0.100	0.0970	97	0.0903	90	70-130	7	35	mg/kg	10.12.2020 19:16	
Ethylbenzene	<0.00200	0.100	0.0964	96	0.0934	93	71-129	3	35	mg/kg	10.12.2020 19:16	
m,p-Xylenes	<0.00400	0.200	0.200	100	0.194	97	70-135	3	35	mg/kg	10.12.2020 19:16	
o-Xylene	<0.00200	0.100	0.100	100	0.0960	96	71-133	4	35	mg/kg	10.12.2020 19:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		99		98		70-130	%	10.12.2020 19:16
4-Bromofluorobenzene	109		107		105		70-130	%	10.12.2020 19:16

Analytical Method: BTEX by EPA 8021B

Seq Number: 3139517

Parent Sample Id: 674900-001

Matrix: Soil

MS Sample Id: 674900-001 S

Prep Method: SW5035A

Date Prep: 10.12.2020

MSD Sample Id: 674900-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.109	109	0.0942	94	70-130	15	35	mg/kg	10.12.2020 20:01	
Toluene	<0.00200	0.100	0.102	102	0.0905	91	70-130	12	35	mg/kg	10.12.2020 20:01	
Ethylbenzene	<0.00200	0.100	0.108	108	0.0925	93	71-129	15	35	mg/kg	10.12.2020 20:01	
m,p-Xylenes	<0.00401	0.200	0.218	109	0.189	95	70-135	14	35	mg/kg	10.12.2020 20:01	
o-Xylene	<0.00200	0.100	0.107	107	0.0950	95	71-133	12	35	mg/kg	10.12.2020 20:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		98		70-130	%	10.12.2020 20:01
4-Bromofluorobenzene	106		112		70-130	%	10.12.2020 20:01

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: 674900

Page 1 of 6

Work Order Comments

Program: UST/PST ☐ RP ☐ Growfields ☐ RC ☐ Spertun

State of Project:

State of Project:

Reporting: Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐

Deliverables: EDD	☐	ADaPT	☐	Other:
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ANALYSIS REQUEST

Work Order Notes

Program: UST/PST ☐ RP ☐ Crownfields ☐ RC ☐ \$pertund	
State of Project:	
Reporting Level: II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐	
Deliverables: EDD ☐ ADaPT ☐ Other:	
ST	Work Order Notes

[illegible][illegible][illegible]

ORCA 10/11/2015 11:00:00
 TCPLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
 1631 / 245.1 / 14/0 / 14/1 : Hg

Circle Method(s) and Metal(s) to be analyzed

Notice: Signature of this document and relinquishment of samples shall not assume any responsibility for any losses or expenses incurred by the client if such losses or expenses are caused by the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses or expenses are caused by the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses or expenses are caused by the cost of samples.

Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time

Relinquished by: (Signature)		
Received by: (Signature)		12-12-2011
		2

11/11/20	1000000000	4	
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[illegible]

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.12.2020 02.11.00 PM

Work Order #: 674900

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 10.12.2020

Checklist reviewed by:



Jessica Kramer

Date: 10.13.2020

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 11050

CONDITIONS OF APPROVAL

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland, TX79707	OGRID: 5380	Action Number: 11050	Action Type: C-141
OCD Reviewer ceads	Condition None		