



February 24, 2026

New Mexico Oil Conservation Division

1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: Remediation Work Plan
Ross Draw CDP
Incident Number NCE2002450037
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Remediation Work Plan (Work Plan)* to document additional site characterization activities completed to date and propose sampling activities to address impacted soil identified at the Ross Draw Central Delivery Point (CDP; Site). A *Deferral Request* detailing site assessment, soil sampling, and remediation activities completed in response to a release of crude oil and freshwater during dust suppression operations at the Site and adjacent road was submitted to the New Mexico Oil Conservation Division (NMOCD) on March 13, 2020. A deferral was requested for residual chloride impacted soil in the pipeline right-of-way (ROW) at the northern end of the pad that was left in place to comply with the XTO safety policy regarding earth-moving activities within two feet of active pipelines. Additionally, Kinder Morgan restricted XTO from excavating deeper than 0.5 feet below ground surface (bgs) within the pipeline ROW as part of their internal safety procedures regarding high pressure pipelines. NMOCD denied the *Deferral Request* stating that impacts were not fully delineated, and that background samples must be collected from areas undisturbed by oil and gas activities. In response to the denial of the *Deferral Request*, Site receptors were re-evaluated to determine if previously established NMOCD Table I Closure Criteria (Closure Criteria) were appropriate. The following *Work Plan* presents updated Site receptor information and proposes delineating impacts to the newly confirmed Closure Criteria for the Site to support deferring excavation of impacted soil in the ROW and State Line Road until the areas are reconstructed or properly abandoned.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site, including the southern half of the ROW, is located in Unit A, Section 32, Township 26 South, Range 30 East, in Eddy County, New Mexico (32.00576°, -103.896042°) and is associated with oil and gas exploration and production operations on State Trust Land managed by the New Mexico State Land Office (NMSLO) under Lease Number VB26020003. The northern half of the ROW and State Line Road that were impacted by the release are Federal land managed by the Bureau of Land Management (BLM).

On November 18, 2019, an accidental release of freshwater and limited crude oil from a water truck occurred on the well pad and adjacent road (State Line Road) during the application of freshwater as a dust suppressant during pad construction. The release consisted of approximately 0.87 barrels (bbls) of crude oil and approximately 28 bbls of freshwater. No free liquids were recovered. XTO reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 (Form C-141) on

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November 25, 2019, and the release was subsequently assigned Incident Number NCE2002450037.

As documented in the *Deferral Request*, the release occurred along State Line Road and flowed over the pipeline ROW and onto the well pad that was being constructed. Preliminary soil samples were collected at eight locations (SS01 through SS08) within and around the release extent at a depth of 0.5 feet bgs. Preliminary soil samples SS01, SS02 and SS08 were collected along the road, SS07 was collected in the ROW, and SS03 through SS06 were collected in the area of well pad construction. Laboratory analytical results for preliminary assessment soil samples SS02 and SS03 indicated that total petroleum hydrocarbons (TPH) concentrations exceeded the Closure Criteria, and results from soil samples SS01, SS03, and SS08 indicated that chloride concentrations exceeded the Closure Criteria.

Based on the assessment analytical results, excavation occurred in three main areas at the Site: the well pad construction area, the pipeline ROW, and within State Line Road. The depth of the well pad construction area excavation ranged from 0.5 feet to 1.5 feet bgs. An estimated 17,075 square feet were excavated, and approximately 475 cubic yards of impacted soil were removed from the well pad construction area. Composite confirmation floor samples FS01 through FS35, FS41, FS47 through FS65 and FS107 were collected from the well pad construction area excavation at depths ranging from 0.5 feet to 1.5 feet bgs. Based on analytical results, samples collected at a depth of 0.5 feet bgs at locations FS01 through FS04, FS15 through FS17, and FS48 through FS52 were over excavated to a depth of 1-foot bgs and resampled using the same sample number followed by the letter A. Similarly, sampling location FS41 was over excavated and confirmation sample FS41B was collected at a final depth of 1.5 feet bgs.

The pipeline ROW excavation was restricted to a depth of 0.5 feet bgs due the presence of multiple high-pressure pipelines. An estimated 9,075 square feet of the pipeline ROW was excavated, and 170 cubic yards of impacted soil were removed. However, to follow the XTO safety policy regarding earth moving activities within two feet of active pipelines and based on instruction from Kinder Morgan, the third-party pipeline operator, the pipeline ROW excavation was limited to 0.5 feet bgs. Composite confirmation floor samples FS36 through FS40, FS42 through FS46, FS66 through FS72, FS118 and FS119 were collected from the pipeline ROW excavation at a depth of 0.5 feet bgs. Sampling location FS42 located near the southern boundary of the ROW was over excavated to a final depth of 1-foot bgs and sample FS42A was collected at the floor of the ROW excavation.

Depth of the excavation along the State Line Road varied from 0.5 feet bgs to 1.25 feet bgs. An estimated 18,470 square feet of lease road were excavated and approximately 490 cubic yards of impacted soil were removed. Composite confirmation floor samples FS73 through FS92, FS94 through FS106, and FS108 through FS117 were collected from the road excavation at depths ranging from 0.5 feet to 1.25 feet bgs. Sampling locations FS75 and FS77 through FS81 at 0.5 feet bgs were over excavated to a depth of 1.25 feet bgs based on chloride analytical results. Samples were collected at the final excavation depth of 1.25 feet bgs and named using the same sample numbers followed by the letter A.

Due to the limited depth of the excavation, floor samples represented soil contained in the floor and sidewalls of the excavation. Following the completion of confirmation sampling, the excavation was backfilled so that operations could resume.

Chloride exceedances above the Site Closure Criteria were reported in 31 of the 118 floor sampling locations. All 31 locations were located within the pipeline ROW and the State Line Road excavations. Delineation soil sampling was conducted to determine the vertical and lateral extent of residual impacted soil in the pipeline ROW and investigate elevated chloride concentrations in State Line Road. Seventeen boreholes (BH01 through BH17) were advanced to a depth of approximately 2 feet bgs and two discrete

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soil samples were collected from each borehole at depths of approximately 1-foot bgs and 2 feet bgs. Because the boreholes were manually advanced with a hand auger, boreholes within the pipeline ROW were allowed to deeper depths than mechanical excavation. In addition, pothole PH07 was advanced to a terminal depth of approximately 4 feet bgs and four discrete samples were collected at depths ranging from 1.5 feet bgs to 4 feet bgs. All soil samples were submitted to the laboratory for the analysis of the benzene, toluene, ethylbenzene and total xylenes (BTEX), TPH and chloride with the exception of PH07 samples that were analyzed for chloride only. Analytical results from all delineation sample depths indicated constituents of concern (COC) concentrations in compliance with Site Closure Criteria.

Two soil samples (BG01 and BG02) were collected along State Line Road to determine chloride concentrations of the source material used for the lease road. The lease road background samples were collected between 70 and 90 feet to the east and west of the release extent. Highly variable chloride concentrations were identified in field screening results and analytical results from samples collected on the road, which led to the investigation of chloride concentrations in the material used to construct the road. A chloride background soil concentration range of 1,810 milligrams per kilogram (mg/kg) to 2,020 mg/kg was established from background samples collected east and west of the release extent. All excavation confirmation samples collected from the road reported COC concentrations within range of the established background concentrations indicating the road was remediated to background conditions.

Following excavation, laboratory analytical results for soil samples indicated benzene, BTEX, and TPH concentrations were compliant with Site Closure Criteria in all excavation soil samples. Chloride concentrations were compliant with Site Closure Criteria in the well pad construction area and portions of the pipeline ROW in the northern portion of the construction area after excavation. Chloride concentrations in excavation samples collected from the lease road were below background concentrations established for the road construction material. Residual elevated chloride concentrations exceeding 600 mg/kg remain above the active pipelines in the pipeline ROW. XTO requested a deferral of final remediation of this soil for Incident Number NCE2002450037 in the *Deferral Request* submitted to the NMOCD on March 13, 2020 (Appendix A).

On April 22, 2020, the NMOCD denied the *Deferral Request* for the following reasons:

- *The chloride impacts in the Kinder Morgan Ford Lateral CO2 pipeline ROW has not been fully delineated.*
- *Background samples from a road is not acceptable. Background needs to come from completely undisturbed area. A grab, not composite, sample(s) should be gathered in areas undisturbed by oil and gas activities, nominally uphill from the release area, and no closer than 50 feet but no farther than 100 feet from the lateral and horizontal extents of a release's impact.*

What follows is a description of additional actions completed to confirm the applicable Closure Criteria at the Site and address the NMOCD concerns stated in the denial.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review were presented in the *Deferral Request*. The Site was mapped in an area underlain by unstable geology (high potential karst designation area), and the following Closure Criteria were applied to the release:

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- Benzene: 10 milligrams per kilogram (mg/kg);
- BTEX: 50 mg/kg;
- TPH: 100 mg/kg; and
- Chloride: 600 mg/kg.

Following the denial of the *Deferral Request*, potential receptors were reevaluated at the Site. Southwest Geophysical Consulting, a BLM-approved third-party cave/karst contractor, conducted a desktop survey, aerial survey, and geophysical survey of the Site. In summary, no surface karst features within the 200-foot survey area surrounding the release extent were identified in the desktop or surface karst surveys. Results of the geophysical study indicated a well-layered geologic system is present beneath the Site with no anomalies in the data that would be consistent with air-filled subsurface voids or a pathway to groundwater. The detailed report provided by Southwest Geophysical Consulting is included in Appendix B.

Depth to groundwater at the Site is estimated to be greater than 100 feet bgs based on the nearest groundwater well data obtained after the submittal of the *Deferral Request*. New Mexico Office of the State Engineer (NMOSE) records report soil borings C-4448 POD 1 and C-4448 POD 12 located approximately 1,360 feet southwest of the Site were drilled to a depth of 110 feet bgs on June 16, 2020, and groundwater was not present in either boring. The closest continuously flowing water or significant watercourse is an unnamed intermittent streambed, located approximately 1,321 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. Potential Site receptors are identified on Figure 1.

Based on the results of the karst survey, a lack of sensitive receptors near the Site, and groundwater documented to be greater than 100 feet bgs, XTO proposes application of the following revised Closure Criteria, deemed appropriate based on new information obtained for this Site:

- Benzene: 10 mg/kg;
- BTEX: 50 mg/kg;
- TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg;
- Total TPH: 2,500 mg/kg; and
- Chloride: 20,000 mg/kg.

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH applies to the top 4 feet of impacted soil, per 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation.

NMSLO CULTURAL RESOURCES AND BIOLOGICAL REVIEW

Cultural Properties Protection

Remediation activities are anticipated to remain in previously disturbed areas of the well pad, pipeline

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ROW, and State Line lease road. If any surface disturbing activities encroach into undisturbed areas, the Cultural Properties Protection (CPP) Rule will be followed.

Biological Review

Ensolum personnel conducted a desktop review to establish if the Site is within an area of possible threatened, endangered, and sensitive wildlife and plant species, environmentally sensitive areas, surface waters, and sensitive soils.

- The Site is not located within the historical range of the Lesser Prairie-Chicken habitat or the Dunes Sage Brush Lizard habitat.
- The pipeline ROW and State Line Road are located within Bureau of Land Management's (BLM) potential habitat for Scheer's beehive cactus. Both areas have been previously disturbed so native vegetation should not be disturbed during the remediation of this Site.
- A review of the U.S. Fish and Wildlife Services Information for Planning and Consultation (IPaC) resources indicated there are no potential critical habitats at the Site.
 - o Threatened and endangered, non-essential experimental population bird species (Piping Plover and Northern Aplomado Falcon, respectively) are potentially present in the area near the Site.
 - o Proposed threatened insect species (Monarch Butterfly) are possibly present in the area near the Site.
- The Natural Resources Conservation Service (NRCS) Web Soil Survey identifies the soil type as Reeves-Gypsum land complex at the Site, which is not classified as a sensitive soil.

PROPOSED REMEDIATION WORK PLAN

Following the confirmation of Site Closure Criteria based on recent depth to groundwater borings and karst survey results, the previously collected assessment, delineation and excavation soil sampling results were reviewed to determine areas of exceedances remaining at the Site. Analytical results from the excavation soil samples indicated all COC concentrations were compliant with the revised Site Closure Criteria. Chloride concentrations exceeding the reclamation requirement were reported from the excavation confirmation samples collected in portions of the pipeline ROW as well as areas of State Line Road, indicating the presence of waste-containing soil. Figure 2 illustrates the previous excavation soil sampling locations, and Figure 3 shows the previous delineation soil sampling locations.

XTO proposes the following sampling at the well pad construction area excavation to address remaining waste-containing soil:

- Portions of the well pad construction area excavation were completed to a depth of 1.5-feet bgs. In areas where soil was removed to depths of 1-foot bgs or greater, 5-point composite sidewall samples will be analyzed to fully characterize the remaining soil. XTO proposes collecting three composite samples from the previous sidewalls surrounding FS01 through FS04, FS15 through FS17, FS41, FS42, and FS49 through FS52 sampling locations. The 5-point composite soil samples will be collected every 200 square feet from the sidewalls of the excavation. The 5-point composite samples will be collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing.

Results from sampling locations FS43, FS46, and FS66 through FS72 exceeded the reclamation

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requirements for chloride within the pipeline ROW. The extent of impacts in the ROW is defined laterally and vertically by sampling locations FS35, FS37, FS40, FS44, FS45, FS64, FS82, FS99, FS101, and FS107 collected at 0.5 feet bgs and BH01 through BH17 that were sampled at depths of 1-foot and 2-feet bgs. In response to NMOCD's denial response to the *Deferral Request*, XTO proposes the following additional delineation sampling within the pipeline ROW:

- Collect discrete, delineation samples at a depth of 0.5-feet bgs at previous sampling location BH13 and collect discrete, delineation samples from five proposed locations at depths of 0.5-feet, 1-foot and 2 feet bgs to fully define the horizontal extent of impacts within the ROW. If field screening suggests impacts exceed the Closure Criteria and/or reclamation requirement at these proposed locations and depths, step out borings will be advanced to define the lateral and vertical extent of impacts. The previous and proposed delineation sampling locations are illustrated on Figure 3.

Results from excavation sampling locations FS73 through FS81, FS103 through FS106, FS108 through FS112, and FS114 through FS117 exceeded the reclamation requirement for chloride within the State Line Road excavation. XTO proposes the following sampling in response to NMOCD's denial of the *Deferral Request*:

- Collect discrete samples at depths of 0.5-feet, 1-foot, 2-feet, 3-feet and 4-feet bgs at three locations within the west end of the State Line Road excavation by previous sampling locations FS73 through FS81 to determine current COC concentrations. Figure 4 illustrates the proposed sampling locations.
- Collect discrete samples at depths of 0.5-feet, 1-foot, 2-feet, 3-feet and 4-feet bgs at five locations within the east end of the State Line Road excavation by previous sampling locations FS103 through FS106, FS108 through FS112, and FS114 through FS117 to evaluate existing COC concentrations. The proposed sampling locations are shown on Figure 4.
- Collect discrete samples at depths of 0.5-feet, 1-foot, 2-feet, 3-feet and 4-feet bgs at previous background sampling locations BG01 and BG02, west of BG01, east of BG02, and south of sampling locations FS103 through FS106, FS108 through FS112, and FS114 through FS117 to laterally delineate impacts of the release within State Line Road (Figure 4).
- Collect discrete samples at a depth of 0.5-feet bgs at three locations north of the State Line Road excavation to laterally define release impacts (Figure 4).

All soil samples will be field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The soil samples will be 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 will be transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, or Eurofins Laboratory (Eurofins) in Carlsbad, New Mexico for analysis of BTEX using United States Environmental Protection Agency (EPA) Method 8021B; TPH following EPA Method 8015M/D; and chloride following Standard Method 4500.

Following the receipt of analytical results from the proposed soil samplings, the following remedial actions are proposed for the well pad construction area, the pipeline ROW, and State Line Road.

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- At the well pad construction area excavation, if analytical results from the proposed composite, excavation sidewall soil samples collected exceed Closure Criteria, additional excavation will be conducted to remediate soil impacts.
- Once the ROW is fully delineated, XTO will request a variance to leave waste-containing soil at sampling locations FS43, FS46, and FS66 through FS72 in-situ until any future major construction or final pipeline abandonment, whichever occurs first.
- Proposed discrete, delineation soil samples will be collected from the State Line Road excavation, previous background sampling locations, and at seven locations in the four cardinal directions surrounding the excavation to determine if chloride concentrations exceed the reclamation requirement and/or Closure Criteria. If impacts are reported, additional sampling will occur to delineate the extent. Once the lease road is fully delineated, XTO will request a variance to leave waste-containing soil in place. State Line Road is heavily trafficked, and the risk to Site receptors of leaving chloride impacts less than 2,500 mg/kg in the top 1 foot of soil is low. The depth to groundwater is greater than 100 feet bgs, and the karst survey conducted at the Site confirms that the underlying lithology is stable. Therefore, XTO will request no further action until the road is abandoned. Upon abandonment of the road, XTO agrees to reclaim State Line Road to the reclamation requirements in 19.15.29.13.D. A similar agreement between XTO and NMOCD was reached regarding a lease road immediately north of the Poker Lake Unit Battery #261 (Incident Number NAPP2126045826). The *Remediation Closure Report* for Incident Number NAPP2126045826 was approved on May 9, 2024.

XTO believes this *Work Plan* is protective of human health, the environment, and groundwater. As such, XTO requests approval of this *Work Plan* by NMOCD. XTO will complete the soil sampling activities within 90 days of the date of approval of this *Work Plan* by the NMOCD.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC

A handwritten signature in black ink, appearing to read "Kath Kahn".

Katherine Kahn, P.G.
Senior Managing Geologist

A handwritten signature in black ink, appearing to read "T Morrissey".

Tacoma Morrissey, MS
Associate Principal

cc: Robert Woodall, XTO
Richard Kotzur, XTO
New Mexico State Land Office
Bureau of Land Management

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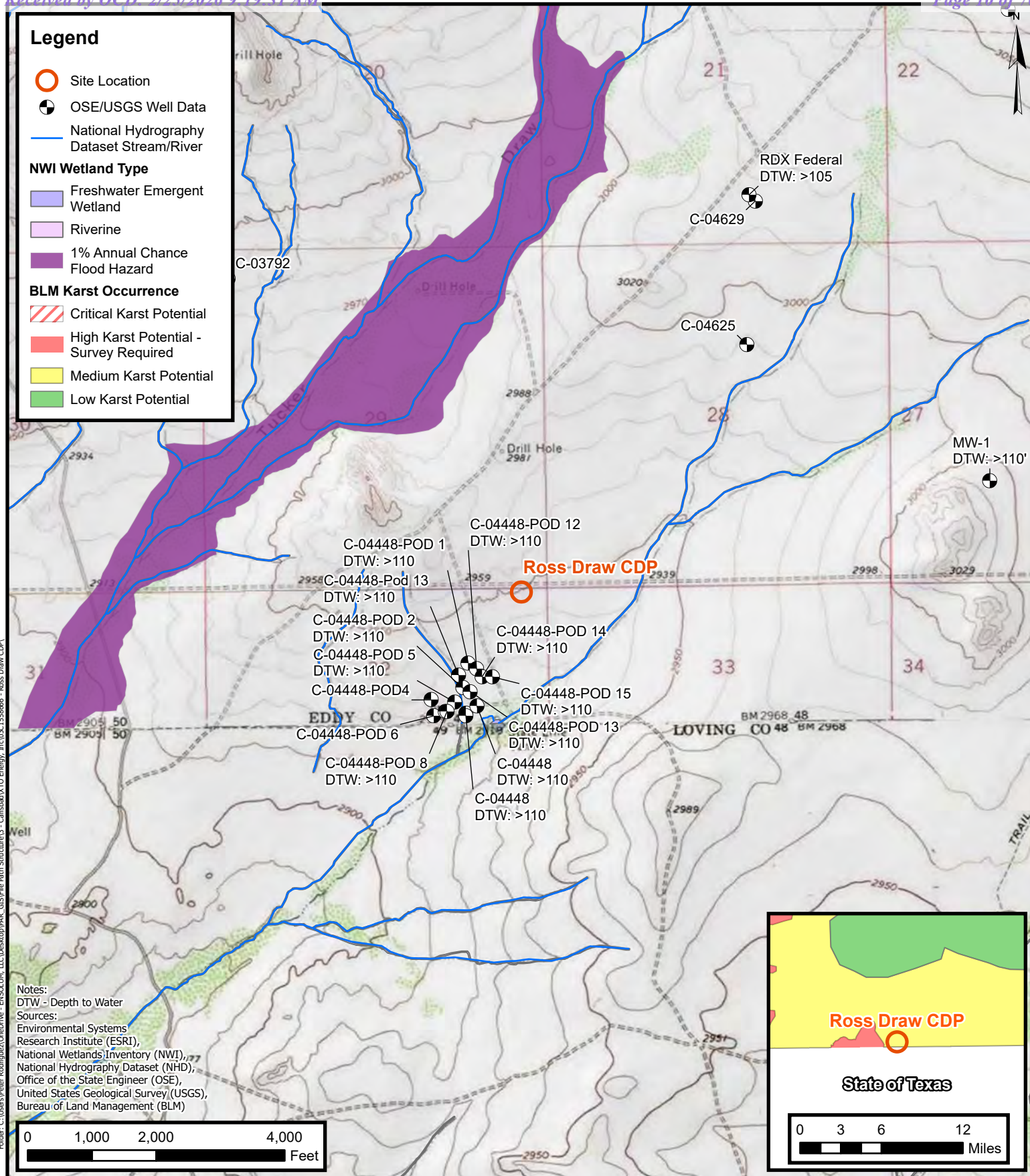


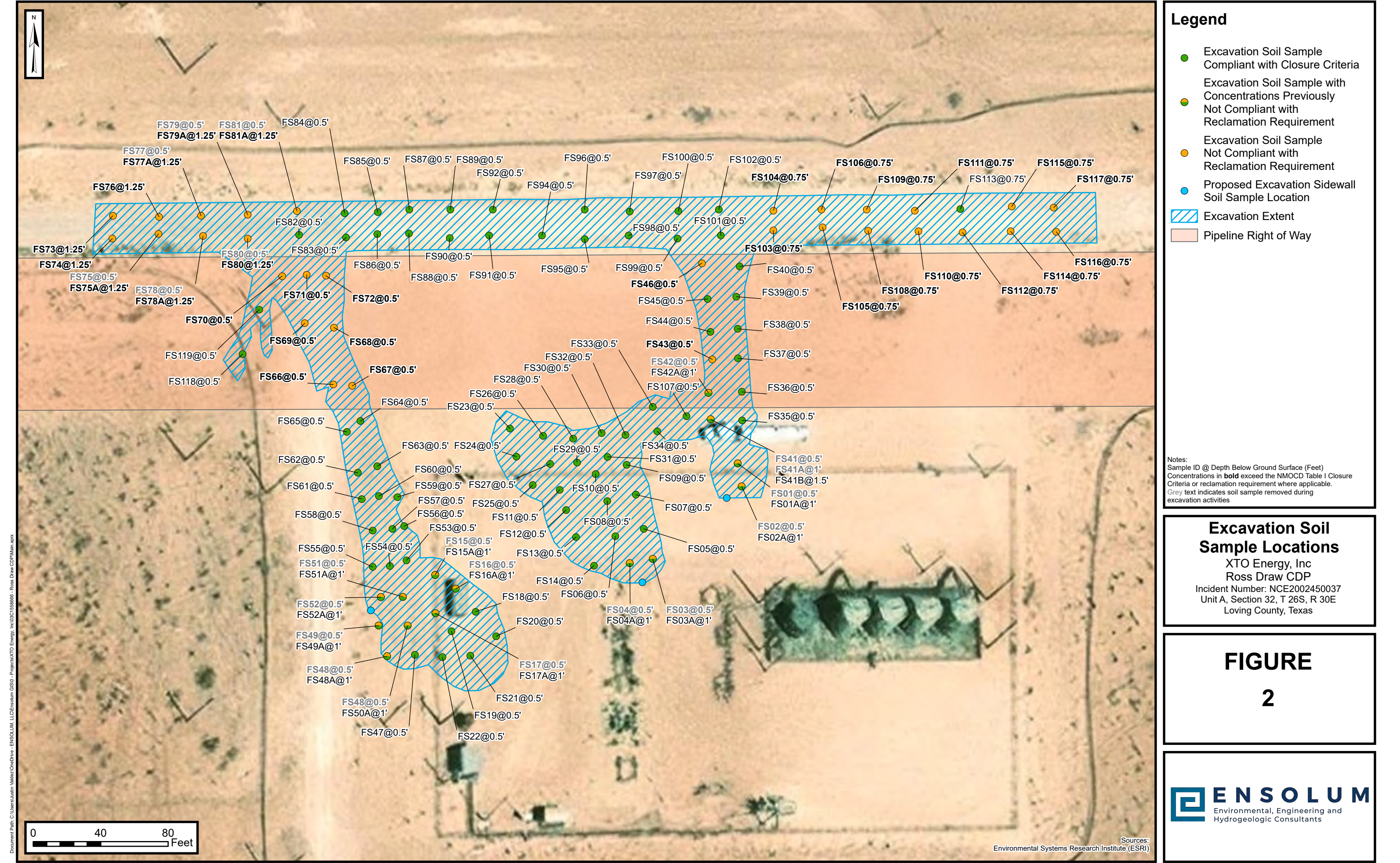
Appendices:

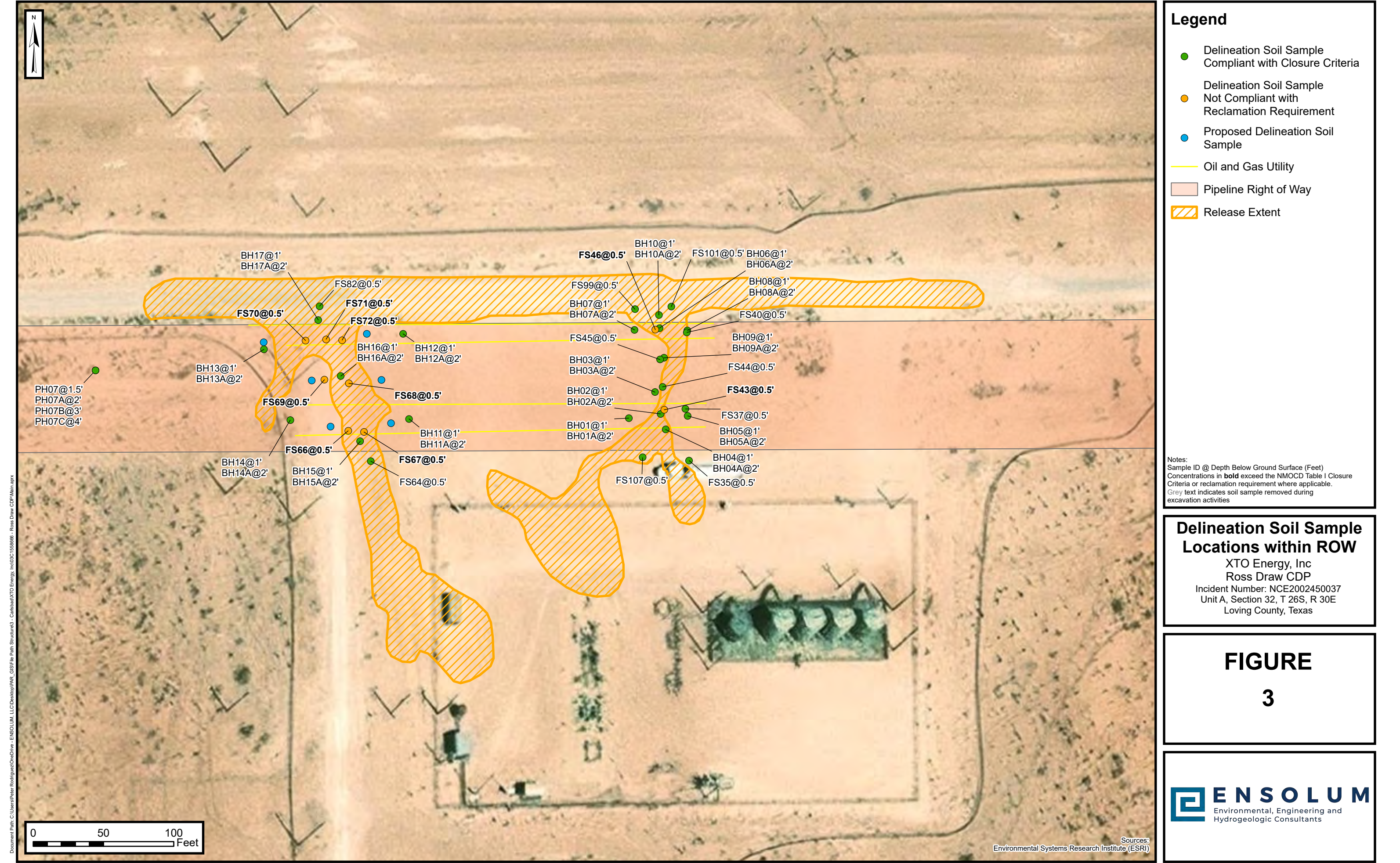
Figure 1	Site Receptor Map
Figure 2	Excavation Soil Sample Locations
Figure 3	Delineation Soil Sample Locations within ROW
Figure 4	Proposed Discrete Soil Sampling Locations within Lease Road
Table 1	Soil Sample Analytical Results
Appendix A	March 13, 2020 <i>Deferral Request</i>
Appendix B	August 15, 2025 <i>Environmental Karst Study Report</i>

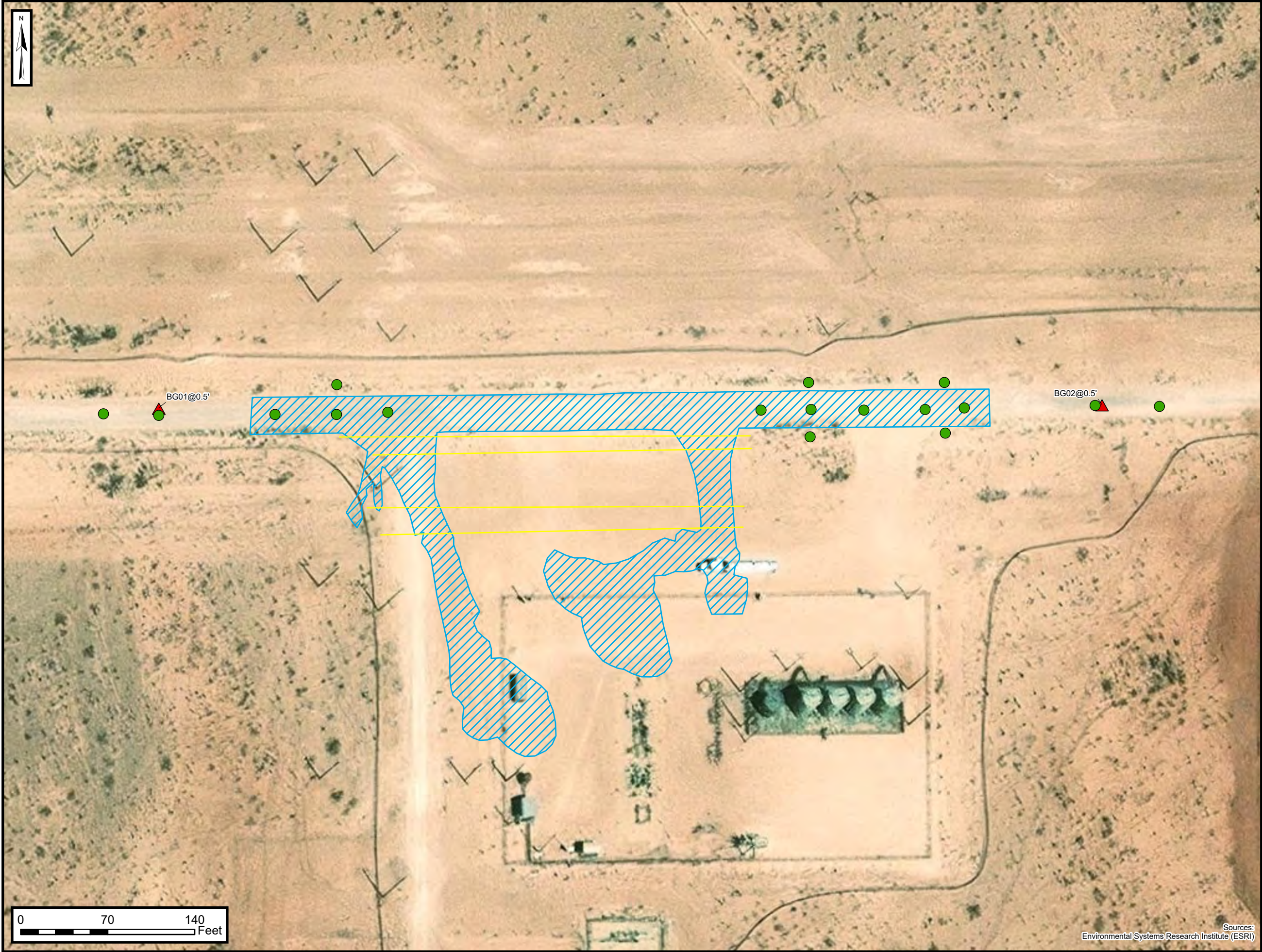


FIGURES









Legend

- ▲ Background Soil Sample Not in Compliance with Applicable Closure Criteria
- Proposed Delineation Soil Sample Location
- Oil and Gas Utility
- ▨ Excavation Extent

Notes:
Sample ID @ Depth Below Ground Surface (Feet)

Proposed Discrete Soil Sample Locations within Lease Road

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Loving County, Texas

FIGURE
4



Sources:
Environmental Systems Research Institute (ESRI)



TABLE



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
ROSS DRAW CDP
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Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
NMOCD Reclamation Requirement for the top four feet			NE	NE	NE	NE	NE	NE	100	600
Delineation Soil Samples										
SS01	11/19/2019	0.5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	995
SS02	11/19/2019	0.5	<0.00200	<0.00200	<50.1	281	<50.1	281	281	587
SS03	11/19/2019	0.5	<0.00200	0.00225	<50.1	164	<50.1	164	164	798
SS04	11/19/2019	0.5	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	104
SS05	11/19/2019	0.5	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	318
SS06	11/19/2019	0.5	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	102
SS07	11/19/2019	0.5	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	148
SS08	11/19/2019	0.5	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	989
PH07	12/6/2019	1.5	NA	NA	NA	NA	NA	NA	NA	50.4
PH07A	12/6/2019	2	NA	NA	NA	NA	NA	NA	NA	403
PH07B	12/6/2019	3	NA	NA	NA	NA	NA	NA	NA	554
PH07C	12/6/2019	4	NA	NA	NA	NA	NA	NA	NA	544
BH01	12/4/2019	1	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	36.5
BH01A	12/4/2019	2	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	<10.0
BH02	12/4/2019	1	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	296
BH02A	12/4/2019	2	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	181
BH03	12/4/2019	1	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	<9.94
BH03A	12/4/2019	2	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	16.1
BH04	12/4/2019	1	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	330
BH04A	12/4/2019	2	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	484
BH05	12/4/2019	1	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<9.92
BH05A	12/4/2019	2	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	<9.90
BH06	12/4/2019	1	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	<9.94
BH06A	12/4/2019	2	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	322
BH07	12/4/2019	1	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	476
BH07A	12/4/2019	2	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	311
BH08	12/4/2019	1	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	33.9
BH08A	12/4/2019	2	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	77.9
BH09	12/4/2019	1	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	<9.98
BH09A	12/4/2019	2	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	215



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Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
NMOCD Reclamation Requirement for the top four feet			NE	NE	NE	NE	NE	NE	100	600
BH10	12/4/2019	1	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	589
BH10A	12/4/2019	2	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	270
BH11	12/5/2019	1	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	48.6
BH11A	12/5/2019	2	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	182
BH12	12/5/2019	1	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	21.3
BH12A	12/5/2019	2	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	48.9
BH13	12/5/2019	1	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	70.6
BH13A	12/5/2019	2	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	45.2
BH14	12/5/2019	1	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	68.3
BH14A	12/5/2019	2	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	116
BH15	12/5/2019	1	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	24.9
BH15A	12/5/2019	2	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	<10.0
BH16	12/5/2019	1	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	77.8
BH16A	12/5/2019	2	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	<10.1
BH17	12/6/2019	1	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	346
BH17A	12/6/2019	2	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	169
BG01	1/21/2020	0.5	NA	NA	NA	NA	NA	NA	NA	2,020
BG02	1/21/2020	0.5	NA	NA	NA	NA	NA	NA	NA	1,810
Excavation Soil Samples										
Well Pad Construction Area										
FS01	11/20/2019	0.5	<0.00200	0.00458	<50.2	327	149	327	476	118
FS01A	12/2/2019	1	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	39.2
FS02	11/20/2019	0.5	<0.00200	0.00486	<50.3	148	99.3	148	247	22.3
FS02A	12/2/2019	1	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	434
FS03	11/20/2019	0.5	<0.00200	<0.00200	<49.9	95.1	65.5	95.1	161	83.3
FS03A	12/2/2019	1	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	110
FS04	11/20/2019	0.5	<0.00201	<0.00201	<49.9	68.4	50.1	68.4	119	189
FS04A	12/2/2019	1	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	86.3
FS05	11/20/2019	0.5	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	85.8
FS06	11/20/2019	0.5	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	80.2



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XTO Energy, Inc
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
NMOCD Reclamation Requirement for the top four feet			NE	NE	NE	NE	NE	NE	100	600
FS07	11/20/2019	0.5	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	21.8
FS08	11/20/2019	0.5	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	68.1
FS09	11/20/2019	0.5	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	26.1
FS10	11/20/2019	0.5	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	233
FS11	11/20/2019	0.5	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	246
FS12	11/20/2019	0.5	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	76
FS13	11/20/2019	0.5	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	58.9
FS14	11/20/2019	0.5	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	62.8
FS15	11/20/2019	0.5	<0.00202	<0.00202	<49.9	426	100	426	526	610
FS15A	12/2/2019	1	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	537
FS16	11/20/2019	0.5	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	880
FS16A	12/2/2019	1	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	560
FS17	11/20/2019	0.5	<0.00200	<0.00200	<49.9	71	56.5	71	128	154
FS17A	12/2/2019	1	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	247
FS18	11/20/2019	0.5	<0.00201	<0.00201	<49.8	73.2	<49.8	73.2	73.2	392
FS19	11/20/2019	0.5	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	111
FS20	11/20/2019	0.5	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	480
FS21	11/20/2019	0.5	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	88.6
FS22	11/20/2019	0.5	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	119
FS23	11/22/2019	0.5	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	400
FS24	11/22/2019	0.5	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	125
FS25	11/22/2019	0.5	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	37
FS26	11/22/2019	0.5	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	155
FS27	11/22/2019	0.5	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	332
FS28	11/22/2019	0.5	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	123
FS29	11/22/2019	0.5	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	154
FS30	11/22/2019	0.5	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	54.6
FS31	11/22/2019	0.5	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	88.1
FS32	11/22/2019	0.5	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	19
FS33	11/22/2019	0.5	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	17.4



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Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
NMOCD Reclamation Requirement for the top four feet			NE	NE	NE	NE	NE	NE	100	600
FS34	11/22/2019	0.5	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	39.5
FS35	11/22/2019	0.5	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	116
FS41	11/22/2019	0.5	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	944
FS41A	12/3/2019	1	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	2,290
FS41B	12/5/2019	1.5	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	298
FS47	11/22/2019	0.5	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	179
FS48	11/22/2019	0.5	<0.00200	<0.00200	<50.2	1,090	<50.2	1,090	1,090	31.7
FS48A	12/2/2019	1	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	157
FS49	11/22/2019	0.5	<0.00199	<0.00199	<50.3	207	<50.3	207	207	51.5
FS49A	12/2/2019	1	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	80
FS50	11/22/2019	0.5	<0.00198	<0.00198	<50.2	587	102	587	689	259
FS50A	12/3/2019	1	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	294
FS51	11/22/2019	0.5	<0.00200	<0.00200	<50.3	746	558	746	1,300	178
FS51A	12/2/2019	1	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	117
FS52	11/22/2019	0.5	<0.00198	<0.00198	<49.8	268	60.6	268	329	142
FS52A	12/2/2019	1	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	111
FS53	11/22/2019	0.5	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	70.1
FS54	11/22/2019	0.5	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	122
FS55	11/22/2019	0.5	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	112
FS56	11/22/2019	0.5	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	18.1
FS57	11/22/2019	0.5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	30.8
FS58	11/22/2019	0.5	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	49.2
FS59	11/23/2019	0.5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	21.3
FS60	11/23/2019	0.5	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	64.1
FS61	11/23/2019	0.5	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	70.7
FS62	11/23/2019	0.5	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	84.3
FS63	11/23/2019	0.5	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	22.3
FS64	11/23/2019	0.5	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	51.7
FS65	11/23/2019	0.5	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	87.1
FS107	12/3/2019	0.5	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	381



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Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
NMOCD Reclamation Requirement for the top four feet			NE	NE	NE	NE	NE	NE	100	600
Pipeline Right-of-Way										
FS36	11/22/2019	0.5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	101
FS37	11/22/2019	0.5	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	166
FS38	11/22/2019	0.5	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	135
FS39	11/22/2019	0.5	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	93.1
FS40	11/22/2019	0.5	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	331
FS42	11/22/2019	0.5	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	663
FS42A	12/3/2019	1	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	570
FS43	11/22/2019	0.5	<0.00201	<0.00201	<50.3	61.9	<50.3	61.9	61.9	1,200
FS44	11/22/2019	0.5	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	531
FS45	11/22/2019	0.5	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	319
FS46	11/22/2019	0.5	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	790
FS66	11/23/2019	0.5	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	2,070
FS67	11/23/2019	0.5	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	1,890
FS68	11/23/2019	0.5	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	2,740
FS69	11/23/2019	0.5	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	2,270
FS70	11/23/2019	0.5	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	4,210
FS71	11/23/2019	0.5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	4,670
FS72	11/23/2019	0.5	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	4,490
FS118	12/6/2019	0.5	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	22
FS119	12/6/2019	0.5	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	21.1
State Line Road										
FS73	12/6/2019	1.25	<0.00197	<0.00197	<49.8	<49.8	<49.8	<49.8	<49.8	1,930
FS74	12/6/2019	1.25	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	999
FS75	11/23/2019	0.5	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	1,050
FS75A	12/6/2019	1.25	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	732
FS76	12/6/2019	1.25	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	1,050
FS77	11/23/2019	0.5	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	1,860
FS77A	12/6/2019	1.25	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	870



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Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
NMOCD Reclamation Requirement for the top four feet			NE	NE	NE	NE	NE	NE	100	600
FS78	11/23/2019	0.5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	1,030
FS78A	12/6/2019	1.25	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	733
FS79	11/23/2019	0.5	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	1,530
FS79A	12/6/2019	1.25	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	1,010
FS80	11/23/2019	0.5	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	961
FS80A	12/6/2019	1.25	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	755
FS81	11/25/2019	0.5	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	880
FS81A	12/6/2019	1.25	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	943
FS82	11/25/2019	0.5	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	583
FS83	11/25/2019	0.5	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	306
FS84	11/25/2019	0.5	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	278
FS85	11/25/2019	0.5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	118
FS86	11/25/2019	0.5	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	181
FS87	11/25/2019	0.5	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	<101
FS88	11/25/2019	0.5	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	50.1
FS89	11/25/2019	0.5	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	108
FS90	11/25/2019	0.5	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	222
FS91	11/25/2019	0.5	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	143
FS92	11/25/2019	0.5	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	78.9
FS94	11/25/2019	0.5	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	192
FS95	11/26/2019	0.5	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	19.7
FS96	11/26/2019	0.5	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	21.1
FS97	11/26/2019	0.5	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	60.2
FS98	11/26/2019	0.5	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	24.6
FS99	11/26/2019	0.5	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	31.2
FS100	11/26/2019	0.5	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	83.1
FS101	11/26/2019	0.5	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	39.6
FS102	11/26/2019	0.5	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	28.6
FS103	12/5/2019	0.75	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	679
FS104	12/5/2019	0.75	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	1,310



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
ROSS DRAW CDP
XTO Energy, Inc
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
NMOCD Reclamation Requirement for the top four feet			NE	NE	NE	NE	NE	NE	100	600
FS105	12/5/2019	0.75	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	963
FS106	12/5/2019	0.75	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	1,290
FS108	12/9/2019	0.75	<0.00189	<0.00189	<50.1	<50.1	<50.1	<50.1	<50.1	886
FS109	12/5/2019	0.75	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	1,290
FS110	12/5/2019	0.75	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	709
FS111	12/5/2019	0.75	<0.00197	<0.00197	<50.2	<50.2	<50.2	<50.2	<50.2	666
FS112	12/5/2019	0.75	<0.00197	<0.00197	<50.3	<50.3	<50.3	<50.3	<50.3	698
FS113	12/5/2019	0.75	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	555
FS114	12/6/2019	0.75	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	907
FS115	12/6/2019	0.75	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	1,960
FS116	12/6/2019	0.75	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	1,450
FS117	12/6/2019	0.75	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	2,300

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



APPENDIX A

March 13, 2020 *Deferral Request*

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	NCE2002450037
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Tyler Newton	Contact Telephone 575-361-1583
Contact email tyler_newton@xtoenergy.com	Incident # (assigned by OCD)
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.005760 Longitude -103.896042
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Ross Draw CDP	Site Type Gas CDP
Date Release Discovered 11/18/19	API# (if applicable)

Unit Letter	Section	Township	Range	County
A	S32	T26S	R30E	Eddy County

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) .87	Volume Recovered (bbls) 0
☐ Produced Water	Volume Released (bbls) 0	Volume Recovered (bbls) 0
	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) Freshwater	Volume/Weight Released (provide units) 28 bbls	Volume/Weight Recovered (provide units) 0 bbls

Cause of Release Accidental release from a water truck while spraying facility pad.

Form C-141

Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NCE2002450037
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Release was greater than 25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, notification was made by Adrian Baker to OCD: Mike Bratcher, Rob Hamlet, Victoria Venegas, Jim Griswold, and Ryan Mann via email on 11/19/19 at 10:08am.	

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 <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Tyler Newton	Title: SSHE Coordinator
Signature: 	Date: 11/25/19
email: tyler_newton@xtoenergy.com	Telephone: 575-361-1583
<u>OCD Only</u>	
Received by: Cristina Eads	Date: 01/24/2020

Incident ID	NCE2002450037
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>100</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.

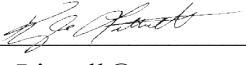
- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile 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

Incident ID	NCE2002450037
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: SH&E Supervisor
Signature:  Date: 03/13/2020
email: Kyle_Littrell@xtoenergy.com Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	NCE2002450037
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: 03/13/2020
email: Kyle_Littrell@xtoenergy.com Telephone: _____

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____



LT Environmental, Inc.

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

March 13, 2020

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

**RE: Deferral Request
Ross Draw CDP
Incident Number NCE2002450037
Eddy County, New Mexico**

Dear Mr. Bratcher:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, soil sampling, and remediation activities at the Ross Draw Central Delivery Point (CDP) (Site) in Unit A, Section 32, Township 26 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to confirm the presence or absence of impacts to soil by a release of crude oil and freshwater during dust suppression operations at the Site and adjacent road. Based on field observations, field screening, and laboratory analytical results from soil sampling activities, XTO is submitting this Deferral Request and respectfully requesting no further action (NFA) for Incident Number NCE2002450037 until the Site is reconstructed, and/or the well pad is abandoned.

RELEASE BACKGROUND

On November 18, 2019, an accidental release of freshwater and limited crude oil from a water truck occurred on the well pad and adjacent road (State Line Road) during the application of freshwater as a dust suppressant during pad construction. The release consisted of approximately 0.87 barrels (bbls) of crude oil and approximately 28 bbls of freshwater. No free liquids were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on November 25, 2019 and was subsequently assigned Incident Number NCE2002450037.

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 greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater





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well with depth to groundwater data is United States Geological Survey (USGS) well 320125103514701, located approximately two miles northeast of the Site (Figure 1). The groundwater well has a reported depth to groundwater of 117 feet bgs and the total well depth was not reported. Depth to groundwater data was not available for New Mexico Office of the State Engineer (NMOSE) wells C 03793 and C 03792, which are closer to the Site. The closest continuously flowing water or significant watercourse is an unnamed intermittent streambed, located approximately 1,437 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is located in a high potential karst area.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On November 19, 2019, LTE personnel inspected the Site to evaluate the release extent. The release occurred along State Line Road and flowed over the pipeline right-of-way (ROW) and onto the well pad being constructed. Preliminary soil samples were collected at eight locations (SS01 through SS08) within and around the release extent. Preliminary soil samples SS01, SS02 and SS08 were collected along the road, SS07 was collected in the ROW, and SS03 through SS06 were collected in the area of well pad construction. Locations of the preliminary soil samples are presented on Figure 2. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS).

The eight preliminary soil samples were collected at a depth of 0.5 feet bgs. Soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. All soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler's 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





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Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary assessment soil samples SS02 and SS03 indicated that TPH concentrations exceeded the Closure Criteria. In addition, laboratory analytical results for preliminary assessment soil samples SS01, SS03, and SS08 indicated that chloride concentrations exceeded the Closure Criteria. Based on visible soil staining within the release areas, field screening results, and laboratory analytical results, soil delineation and excavation appeared to be warranted.

EXCAVATION OF IMPACTED SOIL

From November 20 through December 6, 2019, LTE oversaw excavation activities to remediate impacted soil as indicated by visual observations, field screening results, and preliminary soil sample results. Excavation activities were performed using a backhoe, grader, and transport vehicles throughout the release extent. Excavation occurred in three main areas: the well pad construction area, the pipeline ROW, and the lease road. Excavation extents are presented on Figures 3A and 3B.

Excavation began in the well pad construction area. The depth of this excavation area ranged from 0.5 feet bgs to 1.5 feet bgs. An estimated 17,075 square feet of the well pad construction area were excavated and approximately 475 cubic yards of impacted soil were removed.

The depth of excavation in the pipeline ROW was restricted to a depth of 0.5 feet bgs due the presence of multiple high-pressure pipelines. An estimated 9,075 square feet of the pipeline ROW was excavated, and 170 cubic yards of impacted soil was removed. However, in order to follow the XTO safety policy regarding earth moving activities within two feet of active pipelines and based on instruction from, Kinder Morgan, the third-party pipeline operator, the excavation was limited to 0.5 feet bgs.

Depth of the excavation along the lease road varied from 0.5 feet bgs to 1.25 feet bgs. An estimated 18,470 square feet of lease road were excavated and approximately 490 cubic yards of impacted soil were removed.

Following removal of impacted soil, LTE collected 5-point composite soil samples every 200 square feet from the floor of the excavations. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Soil from the confirmation floor samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. A total of 138 composite soil floor samples were collected from the floor of the excavation. Floor samples were collected at depths ranging from 0.5 feet bgs to 1.5 feet bgs.





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Due to the limited depth of the excavation, floor samples represented soil contained in the floor and sidewalls of the excavation. The excavation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico. The locations of final excavation confirmation samples are presented on Figures 3A and 3B. Photographic documentation was conducted during the remediation activities and is included in Attachment 2.

The excavation extent totaled approximately 44,620 square feet. A total of approximately 1,135 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 landfill facility located in Orla, Texas. Following the completion of confirmation sampling, the excavation was backfilled so that operations could resume.

EXCAVATION ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were compliant with Closure Criteria in the confirmation soil samples. In the 138 confirmation samples, chloride concentrations were compliant with the Closure Criteria, with the exception of FS15, FS16, FS41, FS41A, FS42, FS43, FS46, FS66 through FS81, FS103 through FS106, FS108 through FS112, FS114 through FS117. Floor samples FS66, and FS68 through FS72 were located along the pipeline ROW where excavation was restricted due to the presence of underground pipelines. Concentrations of chloride exceeding Closure Criteria in samples collected from the excavation in the pipeline ROW ranged from 2,070 mg/kg to 4,670 mg/kg.

Chloride concentrations in samples collected from the road excavation exceeded Closure Criteria in 21 samples. Chloride concentrations exceeding 600 mg/kg in the road ranged from 666 mg/kg to 2,300 mg/kg. Laboratory analytical results are summarized in Table 1 and the complete laboratory data reports are included in Attachment 3.

DELINEATION SOIL SAMPLING

Delineation soil sampling was conducted from December 4 through December 6, 2019 in coordination with excavation activities to determine the vertical and lateral extent of residual impacted soil in the pipeline ROW and investigate elevated chloride concentrations in the road. Seventeen boreholes (BH01 through BH17) were advanced to a depth of approximately two feet bgs and two discrete soil samples were collected from each borehole utilizing hand-auger equipment. Delineation soil samples were collected at depths of approximately one foot bgs and two feet bgs. Because the boreholes were manually advanced with a hand auger, boreholes within the pipeline ROW were allowed to deeper depths than mechanical excavation. In addition, pothole PH07 was advanced to a depth of approximately four feet bgs and four discrete samples were collected for laboratory analysis for chloride. Soil from the boreholes/pothole was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride





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QuanTab[®] test strips, respectively. Field screening results and observations for the boreholes/pothole were logged on lithologic/soil sampling logs, which are included in Attachment 1. The locations of the delineation boreholes BH01 through BH17 and pothole PH07 are presented on Figure 4 in relation to excavation confirmation soil samples that exceeded Closure Criteria. The discrete delineation soil samples were collected, handled, and analyzed as described above at Xenco in Carlsbad, New Mexico.

Because confirmation soil samples collected in the excavation along the lease road indicated that chloride concentrations exceeded the Closure Criteria, LTE personnel collected two soil samples (BG01 and BG02) along the lease road to determine chloride concentrations of the source material used for the lease road. The lease road background samples were collected between 70 and 90 feet to the east and west of the release extent. The background soil sample locations are depicted on Figure 4.

DELINEATION SOIL ANALYTICAL RESULTS

Laboratory analytical results for the 38 borehole and 1 pothole delineation samples collected within the pipeline ROW indicated chloride concentrations were below the Closure Criteria. The laboratory analytical results are summarized below and in Table 1 and laboratory analytical reports are attached. The residual chloride impacts in the pipeline ROW are delineated vertically by BH15 through BH17, laterally to the east by boreholes BH11 and BH12, and laterally to the west by boreholes BH13 and BH14. Laboratory analytical results are summarized in Table 1 and the complete laboratory data reports are included in Attachment 3.

Background samples BG01 and BG02 contained chloride concentrations of 2,020 mg/kg and 1,810 mg/kg, respectively. All confirmation samples collected along the lease road (FS73 through FS102 and FS104 through FS117) contained chloride within these background concentrations, ranging from 19.7 mg/kg in FS95 to 2,300 mg/kg in FS117. Chloride concentration in soil in floor sample FS117 is within approximately 13% of the highest background chloride concentrations collected along the lease road. Floor sample FS117 chloride concentration appears to be within background chloride concentrations along the lease road.

CONCLUSIONS

Approximately 1,135 cubic yards of impacted soil were excavated from the Site and all identified elevated concentrations of TPH were removed; however, residual chloride impacted soil in the pipeline ROW at the northern end of the pad that is under construction was left in place for compliance with the XTO safety policy regarding earth-moving activities within two feet of active pipelines. In addition, Kinder Morgan restricted XTO from excavating deeper than 0.5 feet bgs within the pipeline ROW as part of their internal safety procedures regarding high pressure pipelines. The residual chloride impacts near the active pipelines are delineated vertically by





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BH15 through BH17, to the east by boreholes BH11 and BH12, and laterally to the west by boreholes BH13 and BH14.

Highly variable chloride concentrations were identified in field screening results and in sample analytical results from samples collected on the road. The variability motivated LTE to investigate the chloride concentrations in the material used to construct the road. A chloride background soil concentration range of 1,810 mg/kg to 2,020 mg/kg was established in background samples collected east and west of the release extent. All excavation confirmation samples collected from the excavation confirmation samples in the road were within range of the established background concentrations and indicate the road has been remediated to background conditions.

DEFERRAL REQUEST

Laboratory analytical results for the soil samples indicated benzene, BTEX, and TPH concentrations were compliant with the Closure Criteria in all excavation confirmation samples. Chloride concentrations were below Closure Criteria in the well pad construction area and portions of the pipeline ROW in the northern portion of the construction area. Chloride concentrations in excavation confirmation samples were below background concentrations established for the road construction material.

Residual elevated chloride concentrations exceeding 600 mg/kg remain above the active pipelines in the pipeline ROW. XTO requests deferral of final remediation of this soil for Incident Number NCE2002450037. Based on delineation sampling results, approximately 115 cubic yards of residual impacted soil remain. LTE and XTO do not believe deferment will result in an imminent risk to human health, the environment, or groundwater. No saturated soil remains in place and XTO removed as much soil as was safely possible to remove above the active pipelines according to XTO and Kinder Morgan policy regarding earth moving activities.

Upon approval of this Deferral Request, XTO will complete remediation of the remaining impacted soil during any future major construction or final pipeline abandonment, whichever occurs first.

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





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Sincerely,

LT ENVIRONMENTAL, INC.

Kevin M. Axe, P.G.
Senior Geologist

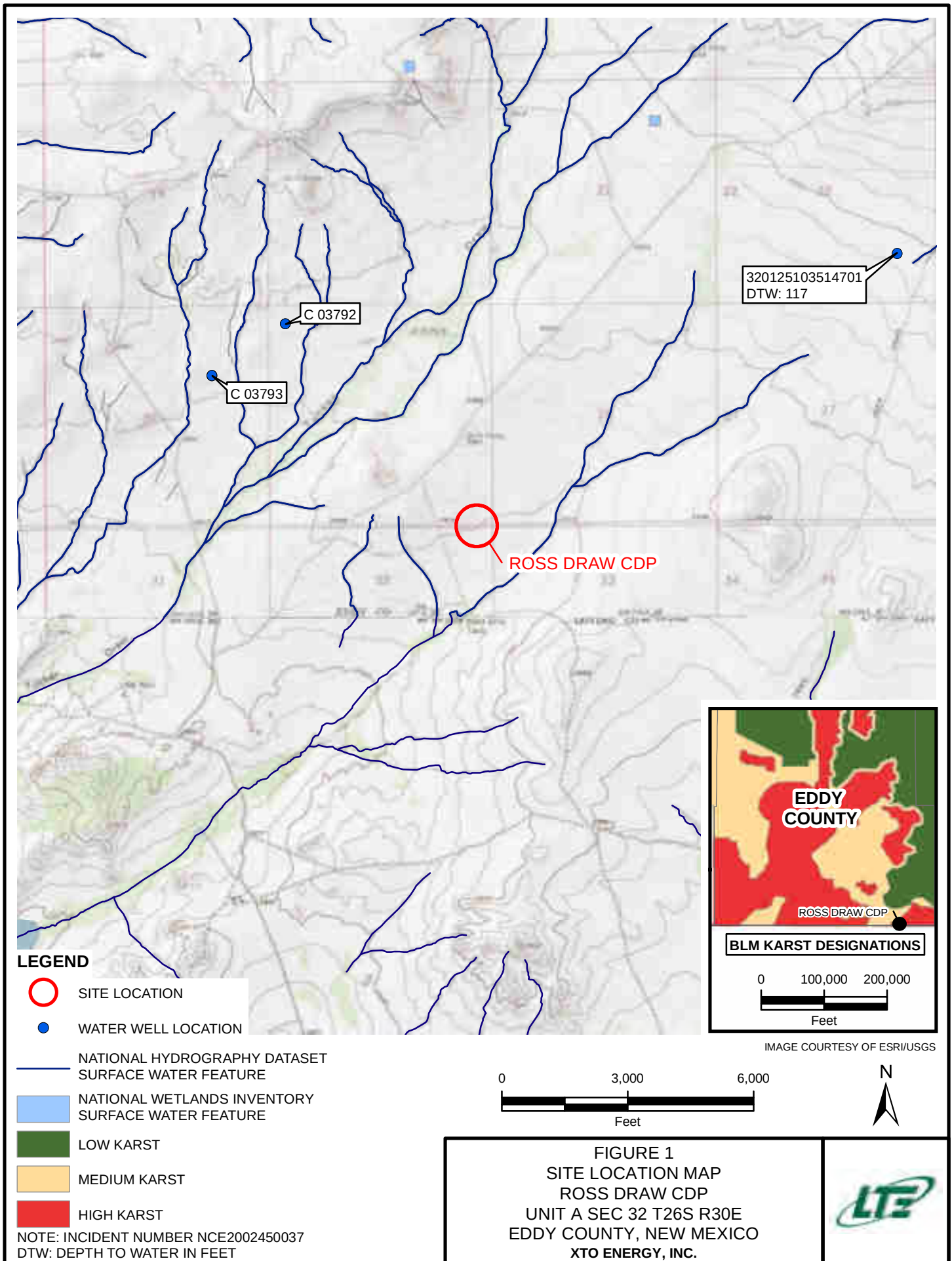
Ashley L. Ager, P.G.
Senior Geologist

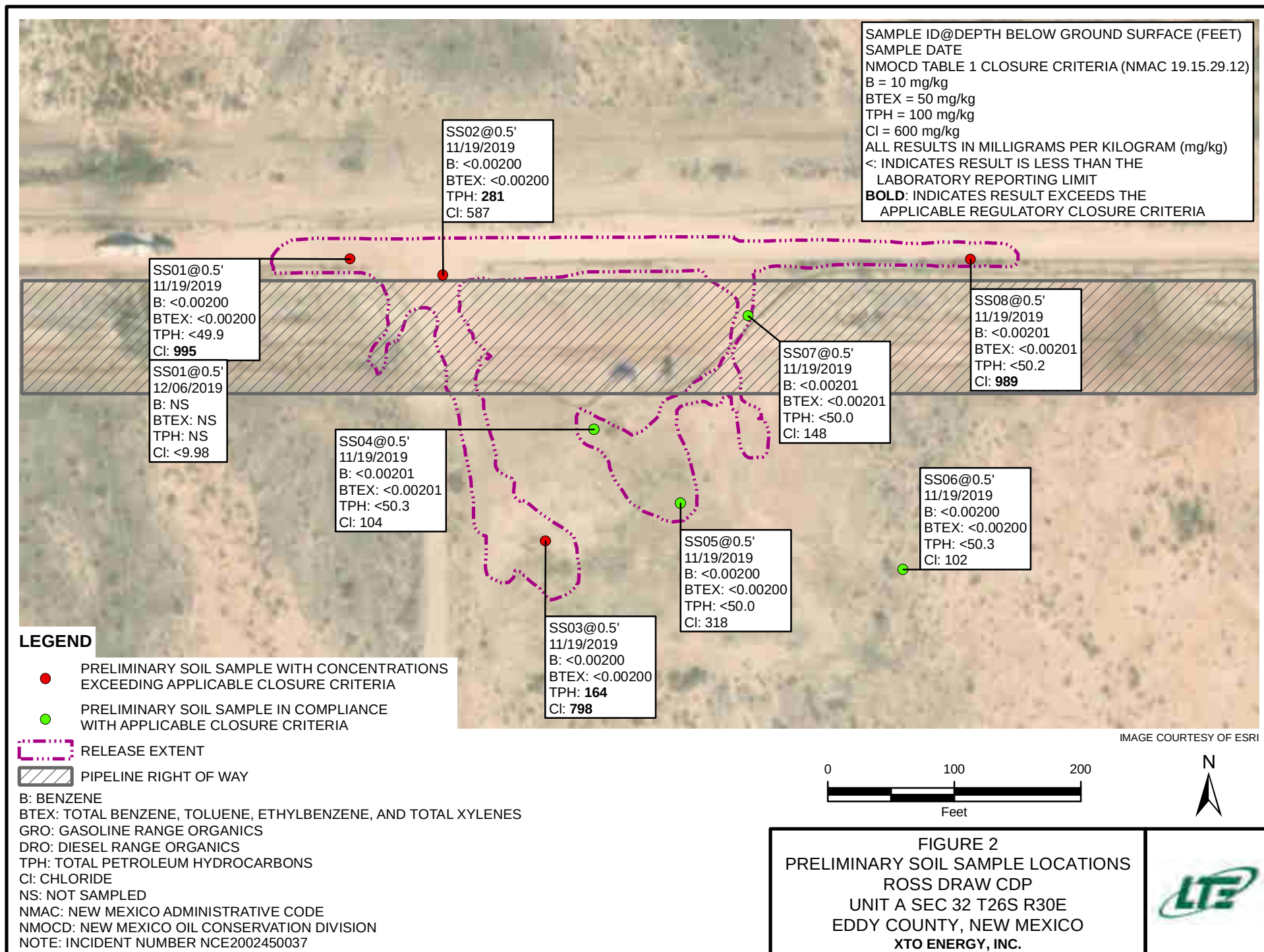
cc: Kyle Littrell, XTO
United States Bureau of Land Management – New Mexico
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD

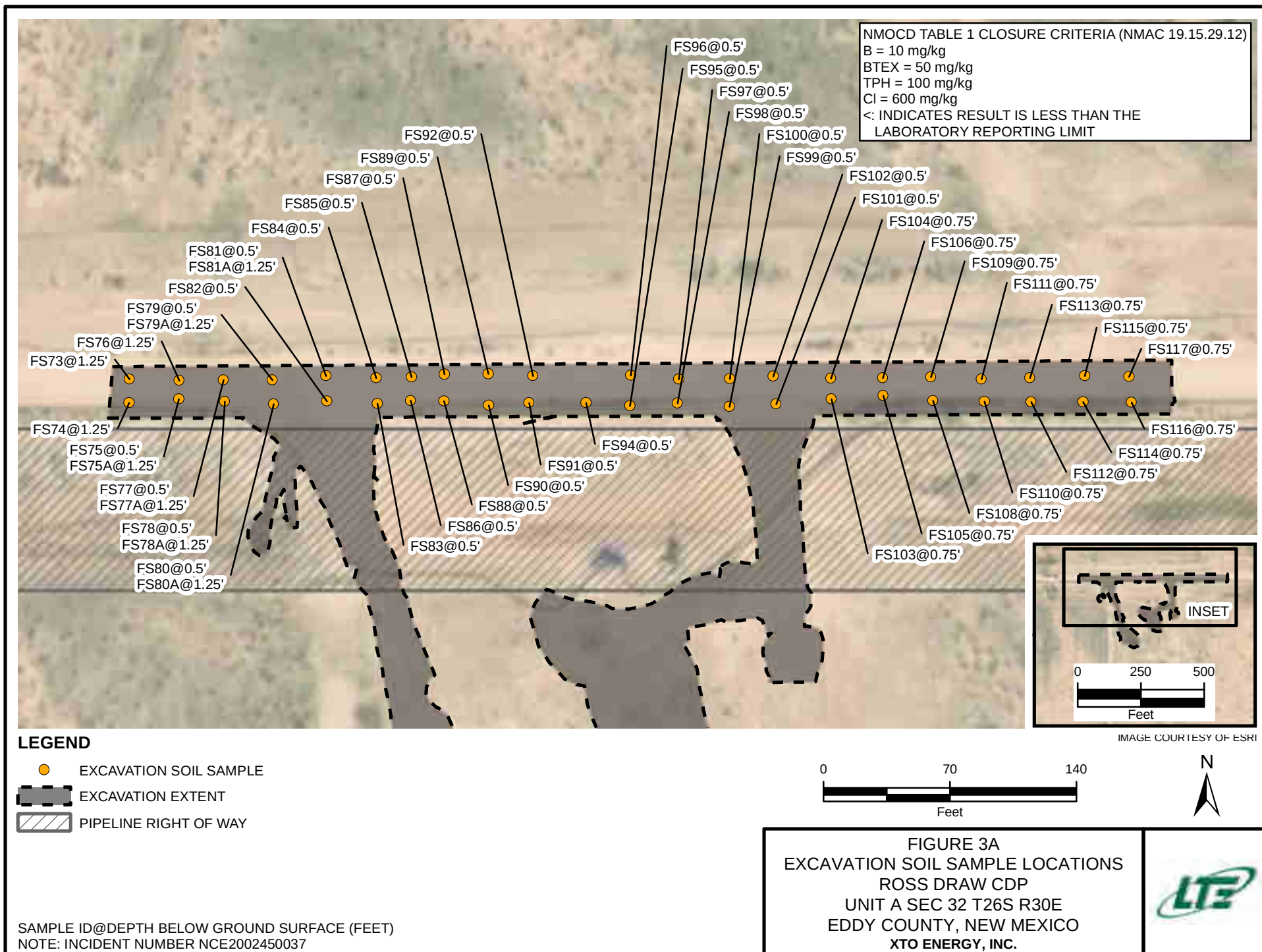
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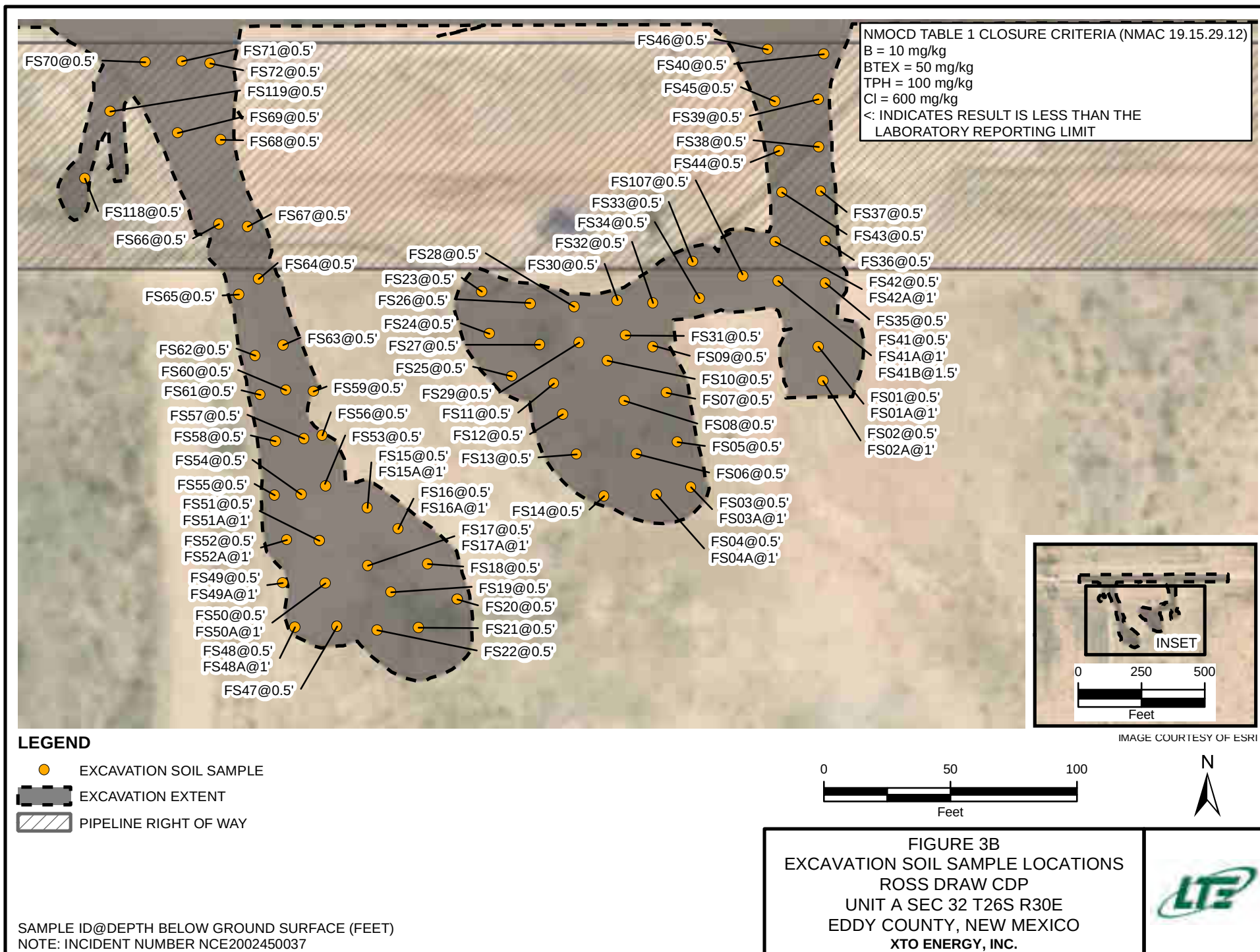
Figure 1 Site Location Map
Figure 2 Preliminary Soil Sample Locations
Figure 3A Excavation Soil Sample locations
Figure 3B Excavation Soil Sample locations
Figure 4 Delineation Soil Sample Locations
Table 1 Soil Analytical Results
Attachment 1 Lithologic / Soil Sampling Logs
Attachment 2 Photographic Log
Attachment 3 Laboratory Analytical Reports

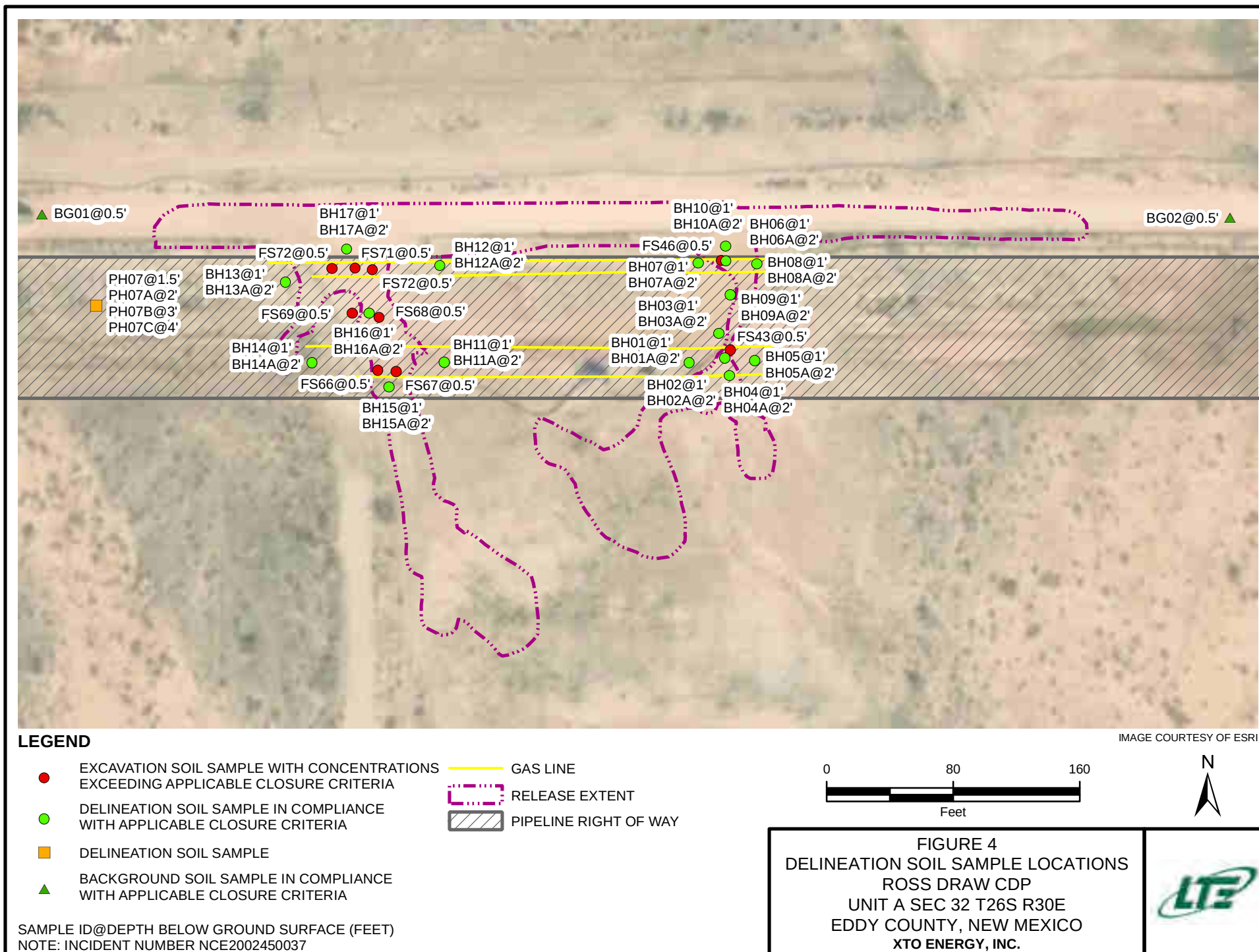












TABLES



**TABLE 1
SOIL ANALYTICAL RESULTS**

**ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.**

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
SS01	0.5	11/19/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	995
SS02	0.5	11/19/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	281	<50.1	281	281	587
SS03	0.5	11/19/2019	<0.00200	<0.00200	<0.00200	0.00225	0.00225	<50.1	164	<50.1	164	164	798
SS04	0.5	11/19/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	104
SS05	0.5	11/19/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	318
SS06	0.5	11/19/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	102
SS07	0.5	11/19/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	148
SS08	0.5	11/19/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	989
PH07	1.5	12/06/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50.4
PH07A	2	12/06/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	403
PH07B	3	12/06/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	554
PH07C	4	12/06/2019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	544
BH01	1	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	36.5
BH01A	2	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	<10.0
BH02	1	12/04/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	296
BH02A	2	12/04/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	181
BH03	1	12/04/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	<9.94
BH03A	2	12/04/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	16.1
BH04	1	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	330
BH04A	2	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	484
BH05	1	12/04/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<9.92
BH05A	2	12/04/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	<9.90

**TABLE 1
SOIL ANALYTICAL RESULTS**

**ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.**

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
BH06	1	12/04/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	<9.94
BH06A	2	12/04/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	322
BH07	1	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	476
BH07A	2	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	311
BH08	1	12/04/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	33.9
BH08A	2	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	77.9
BH09	1	12/04/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	<9.98
BH09A	2	12/04/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	215
BH10	1	12/04/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	589
BH10A	2	12/04/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	270
BH11	1	12/05/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	48.6
BH11A	2	12/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	182
BH12	1	12/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	21.3
BH12A	2	12/05/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	48.9
BH13	1	12/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	70.6
BH13A	2	12/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	45.2
BH14	1	12/05/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	68.3
BH14A	2	12/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	116
BH15	1	12/05/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	24.9
BH15A	2	12/05/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	<10.0
BH16	1	12/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	77.8
BH16A	2	12/05/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	<10.1

**TABLE 1
SOIL ANALYTICAL RESULTS**

**ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.**

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
BH17	1	12/06/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	346
BH17A	2	12/06/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	169
FS01	0.5	11/20/2019	<0.00200	<0.00200	<0.00200	0.00458	0.00458	<50.2	327	149	327	476	118
FS01A	1	12/02/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	39.2
FS02	0.5	11/20/2019	<0.00200	<0.00200	<0.00200	0.00486	0.00486	<50.3	148	99.3	148	247	22.3
FS02A	1	12/02/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	434
FS03	0.5	11/20/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	95.1	65.5	95.1	161	83.3
FS03A	1	12/02/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	110
FS04	0.5	11/20/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	68.4	50.1	68.4	119	189
FS04A	1	12/02/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	86.3
FS05	0.5	11/20/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	85.8
FS06	0.5	11/20/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	80.2
FS07	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	21.8
FS08	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	68.1
FS09	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	26.1
FS10	0.5	11/20/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	233
FS11	0.5	11/20/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	246
FS12	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	76.0
FS13	0.5	11/20/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	58.9
FS14	0.5	11/20/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	62.8
FS15	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	426	100	426	526	610
FS15A	1	12/02/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	537

TABLE 1
SOIL ANALYTICAL RESULTS

ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS16	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	880
FS16A	1	12/02/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	560
FS17	0.5	11/20/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	71.0	56.5	71.0	128	154
FS17A	1	12/02/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	247
FS18	0.5	11/20/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	73.2	<49.8	73.2	73.2	392
FS19	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	111
FS20	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	480
FS21	0.5	11/20/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	88.6
FS22	0.5	11/20/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	119
FS23	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	400
FS24	0.5	11/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	125
FS25	0.5	11/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	37.0
FS26	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	155
FS27	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	332
FS28	0.5	11/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	123
FS29	0.5	11/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	154
FS30	0.5	11/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	54.6
FS31	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	88.1
FS32	0.5	11/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	19.0
FS33	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	17.4
FS34	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	39.5
FS35	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	116
FS36	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	101

TABLE 1
SOIL ANALYTICAL RESULTS

ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS37	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	166
FS38	0.5	11/22/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	135
FS39	0.5	11/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	93.1
FS40	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	331
FS41	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	944
FS41A	1	12/03/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	2,290
FS41B	1.5	12/05/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	298
FS42	0.5	11/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	663
FS42A	1	12/03/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	570
FS43	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.3	61.9	<50.3	61.9	61.9	1,200
FS44	0.5	11/22/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	531
FS45	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	319
FS46	0.5	11/22/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	790
FS47	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	179
FS48	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	1090	<50.2	1090	1,090	31.7
FS48A	1	12/02/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	157
FS49	0.5	11/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	207	<50.3	207	207	51.5
FS49A	1	12/02/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	80.0
FS50	0.5	11/22/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	587	102	587	689	259
FS50A	1	12/03/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	294
FS51	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	746	558	746	1,300	178
FS51A	1	12/02/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	117

**TABLE 1
SOIL ANALYTICAL RESULTS**

**ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.**

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS52	0.5	11/22/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.8	268	60.6	268	329	142
FS52A	1	12/02/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	111
FS53	0.5	11/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	70.1
FS54	0.5	11/22/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	122
FS55	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	112
FS56	0.5	11/22/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	18.1
FS57	0.5	11/22/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	30.8
FS58	0.5	11/22/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	49.2
FS59	0.5	11/23/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	21.3
FS60	0.5	11/23/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	64.1
FS61	0.5	11/23/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	70.7
FS62	0.5	11/23/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	84.3
FS63	0.5	11/23/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	22.3
FS64	0.5	11/23/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	51.7
FS65	0.5	11/23/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	87.1
FS66	0.5	11/23/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	2,070
FS67	0.5	11/23/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	1,890
FS68	0.5	11/23/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	2,740
FS69	0.5	11/23/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	2,270
FS70	0.5	11/23/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	4,210
FS71	0.5	11/23/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	4,670
FS72	0.5	11/23/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	4,490
FS73	1.25	12/06/2019	<0.00197	<0.00197	<0.00197	<0.00197	<0.00197	<49.8	<49.8	<49.8	<49.8	<49.8	1,930

**TABLE 1
SOIL ANALYTICAL RESULTS**

**ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.**

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS74	1.25	12/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	999
FS75	0.5	11/23/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	1,050
FS75A	1.25	12/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	732
FS76	1.25	12/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	1,050
FS77	0.5	11/23/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	1,860
FS77A	1.25	12/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	870
FS78	0.5	11/23/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	1,030
FS78A	1.25	12/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	733
FS79	0.5	11/23/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	1,530
FS79A	1.25	12/06/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	1,010
FS80	0.5	11/23/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	961
FS80A	1.25	12/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	755
FS81	0.5	11/25/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	880
FS81A	1.25	12/06/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	943
FS82	0.5	11/25/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	583
FS83	0.5	11/25/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	306
FS84	0.5	11/25/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	278
FS85	0.5	11/25/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	118
FS86	0.5	11/25/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	181
FS87	0.5	11/25/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	<101
FS88	0.5	11/25/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	50.1
FS89	0.5	11/25/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	108

TABLE 1
SOIL ANALYTICAL RESULTS

ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS90	0.5	11/25/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	222
FS91	0.5	11/25/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	143
FS92	0.5	11/25/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	78.9
FS94	0.5	11/25/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	192
FS95	0.5	11/26/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	19.7
FS96	0.5	11/26/2019	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	21.1
FS97	0.5	11/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	60.2
FS98	0.5	11/26/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	24.6
FS99	0.5	11/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	31.2
FS100	0.5	11/26/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	83.1
FS101	0.5	11/26/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	39.6
FS102	0.5	11/26/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	28.6
FS103	0.75	12/05/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	679
FS104	0.75	12/05/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	1,310
FS105	0.75	12/05/2019	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	963
FS106	0.75	12/05/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	1,290
FS107	0.5	12/03/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	381
FS108	0.75	12/09/2019	<0.00189	<0.00189	<0.00189	<0.00189	<0.00189	<50.1	<50.1	<50.1	<50.1	<50.1	886
FS109	0.75	12/05/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	1,290
FS110	0.75	12/05/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	709
FS111	0.75	12/05/2019	<0.00197	<0.00197	<0.00197	<0.00197	<0.00197	<50.2	<50.2	<50.2	<50.2	<50.2	666
FS112	0.75	12/05/2019	<0.00197	<0.00197	<0.00197	<0.00197	<0.00197	<50.3	<50.3	<50.3	<50.3	<50.3	698

**TABLE 1
SOIL ANALYTICAL RESULTS**

**ROSS DRAW CDP
INCIDENT NUMBER NCE2002450037
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.**

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS113	0.75	12/05/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	555
FS114	0.75	12/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	907
FS115	0.75	12/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	1,960
FS116	0.75	12/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	1,450
FS117	0.75	12/06/2019	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	2,300
FS118	0.5	12/06/2019	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	22.0
FS119	0.5	12/06/2019	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	21.1
BG01	0.5	01/21/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,020
BG02	0.5	01/21/2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,810

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

NA - not analyzed

Greyed data represents samples that were excavated

ATTACHMENT 1: LITHOLOGIC / SOIL SAMPLING LOGS



 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: BH01 Date: 12/04/19						
LITHOLOGIC / SOIL SAMPLING LOG		Project Name: Ross Draw CDP RP Number:						
Lat/Long:	Field Screening:	Logged By: Robert M. Method: Hand Auger						
Comments:		Hole Diameter: 3" Total Depth: 2'						
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	1184	25.0	N		0			
					1	1'	S	SP-SC Brown
D	1121	25.0	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance - Engineering - Remediation		Identifier: BH02 Date: 12/04/19
LITHOLOGIC / SOIL SAMPLING LOG		Project Name: Russ Draw LDP RP Number:
Log/Log:	Field Screening:	Logged By: Robert M Hole Diameter: 3"
Comments:		Method: Hand Auger Total Depth: 2'
Moisture Content	Chloride (ppm)	Vapor (ppm)
Staining	Sample #	Depth (ft. bgs.)
Sample #	Sample Depth	Soil/Rock Type
Lithology/Remarks		
D	380	<5.0
N	1	1'
D	260	<5.0
N	2	2'
SP-SC Brown 		
3 4 5 6 7 8 9 10 11 12		

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: B4103		Date: 12/04/19		
Lab/Long:		Field Summary:		Project Name: Ross Draw CDP		RP Number:		
LITHOLOGIC / SOIL SAMPLING LOG								
Logged By: Robert M		Method: Hand Auger		Hole Diameter: 3"		Total Depth: 2'		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	214	25.0	N		0			
D	214	25.0	N		1	1'	S	SP-SC Brown
D	214	25.0	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: B1101		Date: 12/04/19		
				Project Name: Rise Draw CPP		BP Number:		
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: Robert M.		Method: Hand Auger		
Lat/Long:		Field Screening:		Hole Diameter: 3"		Total Depth: 2'		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	380	<5.0	N		0			
					1	1'	S	SP-SC Brown
D	<128	<5.0	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance • Engineering • Remediation		Identifier: BH05 Date: 12/04/19						
Project Name: ROSS Draw CDP		RP Number:						
LITHOLOGIC / SOIL SAMPLING LOG								
Log/Log:	Field Screening:	Logged By: Robert M. Hole Diameter: 3"						
Comments:		Method: Hand Auger Total Depth: 2'						
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	<124	<5.0	N		0			
					1	1'	S	SP-SC Brown
D	<124	<5.0	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance • Engineering • Remediation		Identifier: BH06		Date: 12/04/19		
				Project Name: Ross Draw CDP		RP Number:		
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: Robert M.		Method: Hand Auger		
Lat/Long:		Field Screening:		Hole Diameter: 3"		Total Depth: 2'		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	<124	25.0	N		0			
					1	1'	S	
D	320	<5.0	N		2	2'	S	SP-SC Brown ↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance - Engineering - Remediation		Identifier: BH07		Date: 12/04/19		
				Project Name: Ross Draw CDP		RP Number:		
LITHOLOGIC / SOIL SAMPLING LOG								
Log/Long:		Field Screening:		Logged By: Roderic M.		Method: Hand Auger		
				Hole Diameter: 3"		Total Depth: 2'		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	480	<5.0	N		0			
					1	1'	S	SP-SC Brown
D	580	<5.0	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: BH08 Date: 12/04/19						
Project Name: Russ Draw CDP		RP Number:						
LITHOLOGIC / SOIL SAMPLING LOG								
Log/Lang:		Field Screening:						
Logged By: Robert M.		Method: Hand Auger						
Hole Diameter: 3"		Total Depth: 2'						
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	<124	<5.0	N		0			
D	<124	<5.0	N		1	1'	S	SP-SC Brown
					2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance • Engineering • Remediation		Identifier: BH09 Date: 12/04/19						
Project Name: Ross Draw CDP		ICP Number:						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:	Field Screening:	Logged By: Robert M. Hole Diameter: 3"						
		Method: Hand Auger Total Depth: 2'						
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	<124	<5.0	N		0			
					1	1'	S	SP-SC Brown
P	260	<5.0	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance • Engineering • Remediation		Identifier: BH10		Date: 12/04/19	
				Project Name: Ross Draw CDP		RP Number:	
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: Robert M.		Method: Hand Auger	
Lat/Long:		Field Screening:		Hole Diameter: 3"		Total Depth: 2'	
Comments:							
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type
					0		
D	524	25.0	N		1	1'	S
D	380	25.0	N		2	2'	S
					3		
					4		
					5		
					6		
					7		
					8		
					9		
					10		
					11		
					12		

SP-SC trace CHCE Brown/tan


		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: BH11 Date: 12/05/19				
Project Name: Ross Draw CDP		RP Number:						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:		Field Screening:		Logged By: Robert M. Method: Hand Auger				
Hole Diameter: 3"		Total Depth: 2'						
Comments:								
Molature Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	<104	<5.0	N		0			
					1	1'	S	
D	200	<5.0	N		2	2'	S	
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

SP-SC Brown
 ↓

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: BH12		Date: 12/05/19		
				Project Name: Ross Draw CDP		RP Number:		
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: Robert M.		Method: Hand Auger		
Lat/Long:		Field Screening:		Hole Diameter: 3"		Total Depth: 2'		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
D	2124	250	N		1	1'	S	SP-SC Brown
D	2124	250	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: BH13		Date: 12/05/19		
				Project Name: Russ Draw CDP		RP Number:		
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: Robert M.		Method: Hand Auger		
Lat/Long:		Field Screening:		Hole Diameter: 3"		Total Depth: 2'		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Stratig.	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	210	CS.D	N		0			
					1	1'	S	
D	224	CS.D	N		2	2'	S	SP-SC Brown ↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance - Engineering - Remediation		Identifier: BH14 Date: 12/05/19				
Project Name: Ross Draw CDP		BP Number:						
Logged By: Robert M		Method: Hand Auger						
Hole Diameter: 3"		Total Depth: 2'						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:		File Screening:		Comments:				
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	<124	<5.0	N		0			
					1	1'	S	
D	<124	<5.0	N		2	2'	S	GP-SC Brown ↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: B115 Date: 12/05/19						
Project Name: Rose Draw CDP		RP Number:						
LITHOLOGIC / SOIL SAMPLING LOG								
Log/Log:		Field Screening:						
Logged By: Robert M.		Method: Hand Auger						
Hole Diameter: 3"		Total Depth: 2'						
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D	<100	<5.0	N		0			
					1	1'	S	
D	<100	<5.0	N		2	2'	S	SP-SC trace CHCE Brown/tan ↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

		LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: BH16		Date: 12/05/19		
				Project Name: Ross Draw CDP		RP Number:		
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long:		Field Screening:		Logged By: Robert M.		Method: Hand Auger		
				Hole Diameter: 3"		Total Depth: 2'		
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					0			
D	2124	260	N		1	1'	S	SP-SC 41002 CICE Brown tan
D	2124	260	N		2	2'	S	↓
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

 LT Environmental, Inc. 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: BH17 Date: 12/06/19
LITHOLOGIC / SOIL SAMPLING LOG		Project Name: ROSS DRAW CDP RP Number:
Test Log:	Field Screening:	Logged By: Robert M Method: Hand Auger Hole Diameter: 3" Total Depth: 2'
Comments:		
Moisture Content	Chloride (ppm)	Vapor (ppm)
Staining	Sample #	Depth (ft. bgs.)
Sample Depth	Soil/Rock Type	Lithology/Remarks
		0
1404 D	380	<5.0
N		1
		1'
		S
		CHCE trace Brown sand tan
1435 D	<124	<5.0
N		2
		2'
		S
		SP-SC / CHCE Brown tan
		3
		4
		5
		6
		7
		8
		9
		10
		11
		12

ATTACHMENT 2: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG



Photograph 1: View of the release extent facing north from center of pad.



Photograph 2: View of the release extent facing north along the lease road.



Photograph 3: View of the excavation on pad facing south.



Photograph 4: View of the excavation on the pad facing east.

Ross Draw CDP
32.006057, -103.895995
Photographs Taken: November 19, through December 2, 2019

PHOTOGRAPHIC LOG



Photograph 5: View south of western side of pad after scraping.



Photograph 6: View of excavation in center of pad facing north.



Photograph 7: View east of lease road after scraping road.



Photograph 8: View north of lease road after scraping road.

Ross Draw CDP

32.006057, -103.895995

Photographs Taken: November 21 through December 4, 2019

Page 2 of 2

Released to Imaging: 3/10/2026 2:20:41 PM

ATTACHMENT 3: LABORATORY ANALYTICAL RESULTS





Analytical Report 643862

for

LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CTB

012919277

11.21.2019

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



11.21.2019

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **643862**

Ross Draw CTB

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 643862. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 643862 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Assistant

A Small Business and Minority Company

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

**Sample Cross Reference 643862****LT Environmental, Inc., Arvada, CO**

Ross Draw CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	11.19.2019 13:35	0.5 ft	643862-001
SS02	S	11.19.2019 13:40	0.5 ft	643862-002
SS03	S	11.19.2019 13:45	0.5 ft	643862-003
SS04	S	11.19.2019 13:50	0.5 ft	643862-004
SS05	S	11.19.2019 14:30	0.5 ft	643862-005
SS06	S	11.19.2019 14:35	0.5 ft	643862-006
SS07	S	11.19.2019 14:40	0.5 ft	643862-007
SS08	S	11.19.2019 14:45	0.5 ft	643862-008



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CTB

Project ID: 012919277
Work Order Number(s): 643862

Report Date: 11.21.2019
Date Received: 11.20.2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3108185 BTEX by EPA 8021B

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

Batch: LBA-3108187 Chloride by EPA 300

Lab Sample ID 643864-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 643862-001, -002, -003, -004, -005, -006, -007, -008.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analysis Summary 643862

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CTB

Project Id: 012919277

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Wed 11.20.2019 12:35

Report Date: 11.21.2019 12:20

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	643862-001	643862-002	643862-003	643862-004	643862-005	643862-006
	Field Id:	SS01	SS02	SS03	SS04	SS05	SS06
	Depth:	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	11.19.2019 13:35	11.19.2019 13:40	11.19.2019 13:45	11.19.2019 13:50	11.19.2019 14:30	11.19.2019 14:35
BTEX by EPA 8021B	Extracted:	11.20.2019 14:11	11.20.2019 14:11	11.20.2019 14:11	11.20.2019 14:11	11.20.2019 14:11	11.20.2019 14:11
	Analyzed:	11.20.2019 19:33	11.20.2019 19:50	11.20.2019 20:08	11.20.2019 20:25	11.20.2019 20:42	11.20.2019 21:00
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00200 0.00200	<0.00200 0.00200	0.00225 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	0.00225 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	0.00225 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	Extracted:	11.20.2019 16:11	11.20.2019 16:11	11.20.2019 16:11	11.20.2019 16:11	11.20.2019 16:11	11.20.2019 16:11
	Analyzed:	11.20.2019 19:52	11.20.2019 20:11	11.20.2019 20:18	11.20.2019 20:37	11.20.2019 20:43	11.20.2019 20:49
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		995 493	587 496	798 493	104 9.82	318 10.0	102 9.92
TPH by SW8015 Mod	Extracted:	11.20.2019 16:30	11.20.2019 16:30	11.20.2019 16:30	11.20.2019 16:30	11.20.2019 16:30	11.20.2019 16:30
	Analyzed:	11.20.2019 18:53	11.20.2019 19:13	11.20.2019 19:33	11.20.2019 19:53	11.20.2019 20:13	11.20.2019 20:33
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.1 50.1	<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.3 50.3
Diesel Range Organics (DRO)		<49.9 49.9	281 50.1	164 50.1	<50.3 50.3	<50.0 50.0	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.1 50.1	<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.3 50.3
Total GRO-DRO		<49.9 49.9	281 50.1	164 50.1	<50.3 50.3	<50.0 50.0	<50.3 50.3
Total TPH		<49.9 49.9	281 50.1	164 50.1	<50.3 50.3	<50.0 50.0	<50.3 50.3

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 643862

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CTB

Project Id: 012919277

Contact: Dan Moir

Project Location: Eddy County

Date Received in Lab: Wed 11.20.2019 12:35

Report Date: 11.21.2019 12:20

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	643862-007	643862-008				
	Field Id:	SS07	SS08				
	Depth:	0.5- ft	0.5- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	11.19.2019 14:40	11.19.2019 14:45				
BTEX by EPA 8021B	Extracted:	11.20.2019 14:11	11.20.2019 14:11				
	Analyzed:	11.20.2019 21:17	11.20.2019 21:34				
	Units/RL:	mg/kg RL	mg/kg RL				
	Benzene	<0.00201 0.00201	<0.00201 0.00201				
	Toluene	<0.00201 0.00201	<0.00201 0.00201				
	Ethylbenzene	<0.00201 0.00201	<0.00201 0.00201				
	m,p-Xylenes	<0.00201 0.00201	<0.00201 0.00201				
	o-Xylene	<0.00201 0.00201	<0.00201 0.00201				
	Total Xylenes	<0.00201 0.00201	<0.00201 0.00201				
	Total BTEX	<0.00201 0.00201	<0.00201 0.00201				
Chloride by EPA 300	Extracted:	11.20.2019 16:11	11.20.2019 16:11				
	Analyzed:	11.20.2019 20:56	11.20.2019 21:02				
	Units/RL:	mg/kg RL	mg/kg RL				
	Chloride	148 9.98	989 504				
TPH by SW8015 Mod	Extracted:	11.20.2019 16:30	11.20.2019 16:30				
	Analyzed:	11.20.2019 20:53	11.20.2019 21:13				
	Units/RL:	mg/kg RL	mg/kg RL				
	Gasoline Range Hydrocarbons (GRO)	<50.0 50.0	<50.2 50.2				
	Diesel Range Organics (DRO)	<50.0 50.0	<50.2 50.2				
	Motor Oil Range Hydrocarbons (MRO)	<50.0 50.0	<50.2 50.2				
	Total GRO-DRO	<50.0 50.0	<50.2 50.2				
	Total TPH	<50.0 50.0	<50.2 50.2				

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Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analytical Results 643862

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS01** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-001 Date Collected: 11.19.2019 13:35 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	995	493	mg/kg	11.20.2019 19:52		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.20.2019 18:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.20.2019 18:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.20.2019 18:53	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.20.2019 18:53	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.20.2019 18:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	11.20.2019 18:53	
o-Terphenyl	84-15-1	112	%	70-135	11.20.2019 18:53	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS01**
Lab Sample Id: 643862-001

Matrix: Soil
Date Collected: 11.19.2019 13:35

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Seq Number: 3108185

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.20.2019 19:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.20.2019 19:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.20.2019 19:33	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.20.2019 19:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.20.2019 19:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.20.2019 19:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.20.2019 19:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.20.2019 19:33		
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.20.2019 19:33		



Certificate of Analytical Results 643862

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS02** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-002 Date Collected: 11.19.2019 13:40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	587	496	mg/kg	11.20.2019 20:11		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.20.2019 19:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	281	50.1	mg/kg	11.20.2019 19:13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.20.2019 19:13	U	1
Total GRO-DRO	PHC628	281	50.1	mg/kg	11.20.2019 19:13		1
Total TPH	PHC635	281	50.1	mg/kg	11.20.2019 19:13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.20.2019 19:13	
o-Terphenyl	84-15-1	108	%	70-135	11.20.2019 19:13	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS02**
Lab Sample Id: 643862-002

Matrix: Soil
Date Collected: 11.19.2019 13:40

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Seq Number: 3108185

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.20.2019 19:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.20.2019 19:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.20.2019 19:50	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.20.2019 19:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.20.2019 19:50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.20.2019 19:50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.20.2019 19:50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.20.2019 19:50		
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.20.2019 19:50		



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS03** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-003 Date Collected: 11.19.2019 13:45 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	798	493	mg/kg	11.20.2019 20:18		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.20.2019 19:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	164	50.1	mg/kg	11.20.2019 19:33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.20.2019 19:33	U	1
Total GRO-DRO	PHC628	164	50.1	mg/kg	11.20.2019 19:33		1
Total TPH	PHC635	164	50.1	mg/kg	11.20.2019 19:33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.20.2019 19:33	
o-Terphenyl	84-15-1	106	%	70-135	11.20.2019 19:33	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS03**
Lab Sample Id: 643862-003

Matrix: Soil
Date Collected: 11.19.2019 13:45

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Seq Number: 3108185

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.20.2019 20:08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.20.2019 20:08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.20.2019 20:08	U	1
m,p-Xylenes	179601-23-1	0.00225	0.00200	mg/kg	11.20.2019 20:08		1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.20.2019 20:08	U	1
Total Xylenes	1330-20-7	0.00225	0.00200	mg/kg	11.20.2019 20:08		1
Total BTEX		0.00225	0.00200	mg/kg	11.20.2019 20:08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.20.2019 20:08	
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.20.2019 20:08	



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Ross Draw CTB

Sample Id: **SS04** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-004 Date Collected: 11.19.2019 13:50 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	104	9.82	mg/kg	11.20.2019 20:37		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.20.2019 19:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.20.2019 19:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.20.2019 19:53	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.20.2019 19:53	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.20.2019 19:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.20.2019 19:53	
o-Terphenyl	84-15-1	103	%	70-135	11.20.2019 19:53	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS04**
Lab Sample Id: 643862-004

Matrix: Soil
Date Collected: 11.19.2019 13:50

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Seq Number: 3108185

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.20.2019 20:25	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.20.2019 20:25	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.20.2019 20:25	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.20.2019 20:25	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.20.2019 20:25	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.20.2019 20:25	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.20.2019 20:25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.20.2019 20:25		
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.20.2019 20:25		



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Ross Draw CTB

Sample Id: **SS05** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-005 Date Collected: 11.19.2019 14:30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	318	10.0	mg/kg	11.20.2019 20:43		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.20.2019 20:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.20.2019 20:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.20.2019 20:13	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.20.2019 20:13	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.20.2019 20:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.20.2019 20:13	
o-Terphenyl	84-15-1	103	%	70-135	11.20.2019 20:13	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: SS05
Lab Sample Id: 643862-005

Matrix: Soil
Date Collected: 11.19.2019 14:30

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Seq Number: 3108185

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.20.2019 20:42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.20.2019 20:42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.20.2019 20:42	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.20.2019 20:42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.20.2019 20:42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.20.2019 20:42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.20.2019 20:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.20.2019 20:42		
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.20.2019 20:42		



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Ross Draw CTB

Sample Id: **SS06** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-006 Date Collected: 11.19.2019 14:35 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	102	9.92	mg/kg	11.20.2019 20:49		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.20.2019 20:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.20.2019 20:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.20.2019 20:33	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.20.2019 20:33	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.20.2019 20:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	11.20.2019 20:33	
o-Terphenyl	84-15-1	122	%	70-135	11.20.2019 20:33	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS06**
Lab Sample Id: 643862-006

Matrix: Soil
Date Collected: 11.19.2019 14:35

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Seq Number: 3108185

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.20.2019 21:00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.20.2019 21:00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.20.2019 21:00	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/kg	11.20.2019 21:00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.20.2019 21:00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.20.2019 21:00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.20.2019 21:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	70-130	11.20.2019 21:00	
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.20.2019 21:00	



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Ross Draw CTB

Sample Id: **SS07** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-007 Date Collected: 11.19.2019 14:40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	148	9.98	mg/kg	11.20.2019 20:56		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.20.2019 20:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.20.2019 20:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.20.2019 20:53	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.20.2019 20:53	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.20.2019 20:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	11.20.2019 20:53	
o-Terphenyl	84-15-1	120	%	70-135	11.20.2019 20:53	



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LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS07**
Lab Sample Id: 643862-007

Matrix: Soil
Date Collected: 11.19.2019 14:40

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Seq Number: 3108185

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.20.2019 21:17	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.20.2019 21:17	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.20.2019 21:17	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.20.2019 21:17	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.20.2019 21:17	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.20.2019 21:17	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.20.2019 21:17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.20.2019 21:17		
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.20.2019 21:17		



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Ross Draw CTB

Sample Id: **SS08** Matrix: Soil Date Received: 11.20.2019 12:35
 Lab Sample Id: 643862-008 Date Collected: 11.19.2019 14:45 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.20.2019 16:11 Basis: Wet Weight
 Seq Number: 3108187

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	989	504	mg/kg	11.20.2019 21:02		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.20.2019 16:30 Basis: Wet Weight
 Seq Number: 3108192

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.20.2019 21:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.20.2019 21:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.20.2019 21:13	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.20.2019 21:13	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.20.2019 21:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.20.2019 21:13	
o-Terphenyl	84-15-1	106	%	70-135	11.20.2019 21:13	



Certificate of Analytical Results 643862

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **SS08**
Lab Sample Id: 643862-008

Matrix: Soil
Date Collected: 11.19.2019 14:45

Date Received: 11.20.2019 12:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.20.2019 14:11

Basis: Wet Weight

Seq Number: 3108185

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.20.2019 21:34	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.20.2019 21:34	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.20.2019 21:34	U	1
m,p-Xylenes	179601-23-1	<0.00201	0.00201	mg/kg	11.20.2019 21:34	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.20.2019 21:34	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.20.2019 21:34	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.20.2019 21:34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.20.2019 21:34		
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.20.2019 21:34		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3108187

MB Sample Id: 7690830-1-BLK

Matrix: Solid

LCS Sample Id: 7690830-1-BKS

Prep Method: E300P

Date Prep: 11.20.2019

LCSD Sample Id: 7690830-1-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	251	100	90-110	1	20	mg/kg	11.20.2019 18:23	

Analytical Method: Chloride by EPA 300

Seq Number: 3108187

Parent Sample Id: 643862-001

Matrix: Soil

MS Sample Id: 643862-001 S

Prep Method: E300P

Date Prep: 11.20.2019

MSD Sample Id: 643862-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	995	196	1140	74	1160	83	90-110	2	20	mg/kg	11.20.2019 19:59	X

Analytical Method: Chloride by EPA 300

Seq Number: 3108187

Parent Sample Id: 643864-001

Matrix: Soil

MS Sample Id: 643864-001 S

Prep Method: E300P

Date Prep: 11.20.2019

MSD Sample Id: 643864-001 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	207	105	207	104	90-110	0	20	mg/kg	11.20.2019 18:41	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108192

MB Sample Id: 7690829-1-BLK

Matrix: Solid

LCS Sample Id: 7690829-1-BKS

Prep Method: SW8015P

Date Prep: 11.20.2019

LCSD Sample Id: 7690829-1-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	813	81	787	79	70-135	3	35	mg/kg	11.20.2019 16:34	
Diesel Range Organics (DRO)	<50.0	1000	947	95	917	92	70-135	3	35	mg/kg	11.20.2019 16:34	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		101		99		70-135	%	11.20.2019 16:34
o-Terphenyl	96		98		96		70-135	%	11.20.2019 16:34

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108192

Matrix: Solid

MB Sample Id: 7690829-1-BLK

Prep Method: SW8015P

Date Prep: 11.20.2019

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.20.2019 16:14	

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



LT Environmental, Inc.

Ross Draw CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108192

Parent Sample Id: 643861-001

Matrix: Soil

MS Sample Id: 643861-001 S

Prep Method: SW8015P

Date Prep: 11.20.2019

MSD Sample Id: 643861-001 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)	<50.0	999	1110	111	897	90	70-135	21	35	mg/kg	11.20.2019 17:36	
Diesel Range Organics (DRO)	<50.0	999	1290	129	1050	105	70-135	21	35	mg/kg	11.20.2019 17:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		131		70-135	%	11.20.2019 17:36
o-Terphenyl	128		116		70-135	%	11.20.2019 17:36

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108185

MB Sample Id: 7690825-1-BLK

Matrix: Solid

LCS Sample Id: 7690825-1-BKS

Prep Method: SW5030B

Date Prep: 11.20.2019

LCSD Sample Id: 7690825-1-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	0.0980	98	0.0920	92	70-130	6	35	mg/kg	11.20.2019 15:30	
Toluene	<0.00200	0.100	0.0890	89	0.0838	84	70-130	6	35	mg/kg	11.20.2019 15:30	
Ethylbenzene	<0.00200	0.100	0.0967	97	0.0910	91	71-129	6	35	mg/kg	11.20.2019 15:30	
m,p-Xylenes	<0.00200	0.200	0.191	96	0.180	90	70-135	6	35	mg/kg	11.20.2019 15:30	
o-Xylene	<0.00200	0.100	0.0945	95	0.0891	89	71-133	6	35	mg/kg	11.20.2019 15:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		100		70-130	%	11.20.2019 15:30
4-Bromofluorobenzene	107		100		98		70-130	%	11.20.2019 15:30

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108185

Parent Sample Id: 643861-001

Matrix: Soil

MS Sample Id: 643861-001 S

Prep Method: SW5030B

Date Prep: 11.20.2019

MSD Sample Id: 643861-001 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	0.0736	74	0.0943	94	70-130	25	35	mg/kg	11.20.2019 17:49	
Toluene	<0.00200	0.100	0.0694	69	0.0879	88	70-130	24	35	mg/kg	11.20.2019 17:49	X
Ethylbenzene	<0.00200	0.100	0.0757	76	0.0960	96	71-129	24	35	mg/kg	11.20.2019 17:49	
m,p-Xylenes	<0.00200	0.200	0.151	76	0.191	96	70-135	23	35	mg/kg	11.20.2019 17:49	
o-Xylene	<0.00200	0.100	0.0743	74	0.0936	94	71-133	23	35	mg/kg	11.20.2019 17:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		99		70-130	%	11.20.2019 17:49
4-Bromofluorobenzene	103		101		70-130	%	11.20.2019 17:49

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) 902-2000 San Antonio, TX (210) 526-2334
 Milled, TX (409-794-5440) El Paso, TX (915) 365-2443 Lubbock, TX (806) 794-0556
 Houston, TX (281-252-7550) Phoenix, AZ (480) 355-2000 Atlanta, GA (770) 449-8000 Tampa, FL (813) 620-3000

Chain of Custody

Work Order No: W43802

Project Manager:	Dan Mor	Bill to: (if different)	Kyle L. (W)
Company Name:	LT Environmental, Inc. - Permian office	Company Name:	XTO Energy
Address:	3300 North A Street Midland, TX 79705	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	(432) 236-3949	Email:	ken@xtoenergy.com daniel@xtoenergy.com
Project Name:	E55 Draw C78	Turn Around	
Project Number:	012919277	Routine	☒
P.O. Number:	Eddy County	Rush	☒
Sample Name:	Elizabeth Naka	Due Date:	

SAMPLE RECEIPT				ANALYSIS REQUEST										Work Order Comments			
Temperature (C):	Temp Blank	Yes/No	Weight	Yes/No	Thermometer ID												
Received Initial:		Yes/No															
Cooler Custody Seal:		Yes/No															
Sample Custody Seal:		Yes/No															
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8-8021)	Chloride (EPA 300.0)								Sample Comments	
S501	S	11/19/19	1335	0.5'	1	X	X	X								discuss	
S502																	
S503																	
S504																	
S505																	
S506																	
S507																	
S508																	

Total 200.7 / 6010 200.8 / 6020:		BRORA 13PPM Texas 11 Al Sb As Ba Be B Cd Cr Co Cu Pb Mn Mo Ni K Se Ag SnO2 Na Sr Ti Sn U V Zn	
Circle Method(s) and Method(s) to be analyzed:		TCLP / SPLP 6010 BRORA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	
Notice: Signatures of this document and relinquishment of samples constitutes a valid guarantee under Texas state company to Xenco, its associates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and does 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 product and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be subject unless previously negotiated.			
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)
Elizabeth Naka	Elizabeth Naka	11/20/19 12:35	



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/20/2019 12:35:00 PM

Work Order #: 643862

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 11/20/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/21/2019

Analytical Report 644199

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

25-NOV-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



25-NOV-19

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

Reference: XENCO Report No(s): **644199**
Ross Draw CDP
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 644199. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 644199 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in dark ink, appearing to read 'Jessica Kramer', is written over a horizontal line.

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

**Sample Cross Reference 644199****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	11-20-19 13:25	0.5 ft	644199-001
FS02	S	11-20-19 13:30	0.5 ft	644199-002
FS03	S	11-20-19 13:40	0.5 ft	644199-003
FS04	S	11-20-19 13:45	0.5 ft	644199-004
FS05	S	11-20-19 13:50	0.5 ft	644199-005
FS06	S	11-20-19 13:55	0.5 ft	644199-006
FS07	S	11-20-19 14:00	0.5 ft	644199-007
FS08	S	11-20-19 14:05	0.5 ft	644199-008
FS09	S	11-20-19 14:10	0.5 ft	644199-009
FS10	S	11-20-19 14:15	0.5 ft	644199-010
FS11	S	11-20-19 14:20	0.5 ft	644199-011
FS12	S	11-20-19 14:25	0.5 ft	644199-012
FS13	S	11-20-19 14:30	0.5 ft	644199-013
FS14	S	11-20-19 14:35	0.5 ft	644199-014
FS15	S	11-20-19 15:00	0.5 ft	644199-015
FS16	S	11-20-19 15:05	0.5 ft	644199-016
FS17	S	11-20-19 15:10	0.5 ft	644199-017
FS18	S	11-20-19 15:15	0.5 ft	644199-018
FS19	S	11-20-19 15:20	0.5 ft	644199-019
FS20	S	11-20-19 15:25	0.5 ft	644199-020
FS21	S	11-20-19 15:30	0.5 ft	644199-021
FS22	S	11-20-19 15:40	0.5 ft	644199-022



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 644199

Report Date: 25-NOV-19
Date Received: 11/22/2019

Sample receipt non conformance and comments:

None

Sample receipt non conformance and comments per sample:

None

Analytical non conformance and comments:

Batch: LBA-3108514 BTEX by EPA 8021B

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

Batch: LBA-3108515 BTEX by EPA 8021B

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

Certificate of Analysis Summary 644199



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 09:12 am

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644199-001	644199-002	644199-003	644199-004	644199-005	644199-006
	<i>Field Id:</i>	FS01	FS02	FS03	FS04	FS05	FS06
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-20-19 13:25	Nov-20-19 13:30	Nov-20-19 13:40	Nov-20-19 13:45	Nov-20-19 13:50	Nov-20-19 13:55
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11
	<i>Analyzed:</i>	Nov-23-19 03:31	Nov-23-19 03:51	Nov-23-19 04:10	Nov-23-19 04:29	Nov-23-19 04:48	Nov-23-19 05:07
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		0.00458 0.00400	<0.00399 0.00399	<0.00400 0.00400	<0.00402 0.00402	<0.00402 0.00402	<0.00400 0.00400
o-Xylene		<0.00200 0.00200	0.00486 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		0.00458 0.00200	0.00486 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		0.00458 0.00200	0.00486 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Nov-22-19 13:11	Nov-22-19 13:11	Nov-22-19 13:11	Nov-22-19 13:11	Nov-22-19 13:11	Nov-22-19 13:11
	<i>Analyzed:</i>	Nov-22-19 20:27	Nov-22-19 20:33	Nov-22-19 20:40	Nov-22-19 20:59	Nov-22-19 21:05	Nov-22-19 21:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		118 10.1	22.3 9.92	83.3 9.98	189 10.1	85.8 10.0	80.2 9.92
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30
	<i>Analyzed:</i>	Nov-23-19 00:21	Nov-23-19 00:41	Nov-23-19 01:01	Nov-23-19 01:20	Nov-23-19 02:00	Nov-23-19 02:19
	<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	<50.3 50.3	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.8 49.8
Diesel Range Organics (DRO)		327 50.2	148 50.3	95.1 49.9	68.4 49.9	<50.2 50.2	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		149 50.2	99.3 50.3	65.5 49.9	50.1 49.9	<50.2 50.2	<49.8 49.8
Total GRO-DRO		327 50.2	148 50.3	95.1 49.9	68.4 49.9	<50.2 50.2	<49.8 49.8
Total TPH		476 50.2	247 50.3	161 49.9	119 49.9	<50.2 50.2	<49.8 49.8

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644199



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 09:12 am

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644199-007	644199-008	644199-009	644199-010	644199-011	644199-012
	<i>Field Id:</i>	FS07	FS08	FS09	FS10	FS11	FS12
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-20-19 14:00	Nov-20-19 14:05	Nov-20-19 14:10	Nov-20-19 14:15	Nov-20-19 14:20	Nov-20-19 14:25
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11
	<i>Analyzed:</i>	Nov-23-19 05:26	Nov-23-19 05:45	Nov-23-19 06:04	Nov-22-19 22:34	Nov-22-19 22:52	Nov-22-19 23:09
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
m,p-Xylenes		<0.00403 0.00403	<0.00404 0.00404	<0.00403 0.00403	<0.00402 0.00402	<0.00402 0.00402	<0.00403 0.00403
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Nov-22-19 13:11	Nov-22-19 13:11	Nov-22-19 13:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11
	<i>Analyzed:</i>	Nov-22-19 21:18	Nov-22-19 21:25	Nov-22-19 21:31	Nov-23-19 09:18	Nov-23-19 09:36	Nov-23-19 09:42
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		21.8 9.94	68.1 10.1	26.1 9.98	233 9.98	246 9.94	76.0 9.96
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30
	<i>Analyzed:</i>	Nov-23-19 02:39	Nov-23-19 02:59	Nov-23-19 03:18	Nov-23-19 03:38	Nov-23-19 03:58	Nov-23-19 04:17
	<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	<50.1 50.1	<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.8 49.8
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.8 49.8
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.8 49.8
Total TPH		<50.2 50.2	<50.1 50.1	<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.8 49.8

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644199



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 09:12 am

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644199-013	644199-014	644199-015	644199-016	644199-017	644199-018
	<i>Field Id:</i>	FS13	FS14	FS15	FS16	FS17	FS18
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-20-19 14:30	Nov-20-19 14:35	Nov-20-19 15:00	Nov-20-19 15:05	Nov-20-19 15:10	Nov-20-19 15:15
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11
	<i>Analyzed:</i>	Nov-22-19 23:27	Nov-22-19 23:44	Nov-23-19 00:02	Nov-23-19 00:19	Nov-23-19 00:36	Nov-23-19 00:54
	<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	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
m,p-Xylenes		<0.00402 0.00402	<0.00401 0.00401	<0.00404 0.00404	<0.00404 0.00404	<0.00401 0.00401	<0.00402 0.00402
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11
	<i>Analyzed:</i>	Nov-23-19 09:48	Nov-23-19 09:53	Nov-23-19 09:59	Nov-23-19 10:17	Nov-23-19 10:23	Nov-23-19 10:29
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		58.9 9.88	62.8 10.1	610 10.0	880 10.1	154 10.1	392 10.0
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30
	<i>Analyzed:</i>	Nov-23-19 04:37	Nov-23-19 04:57	Nov-23-19 08:52	Nov-23-19 07:34	Nov-23-19 07:53	Nov-23-19 08:13
	<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)		<50.3 50.3	<49.8 49.8	<49.9 49.9	<50.2 50.2	<49.9 49.9	<49.8 49.8
Diesel Range Organics (DRO)		<50.3 50.3	<49.8 49.8	426 49.9	<50.2 50.2	71.0 49.9	73.2 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<49.8 49.8	100 49.9	<50.2 50.2	56.5 49.9	<49.8 49.8
Total GRO-DRO		<50.3 50.3	<49.8 49.8	426 49.9	<50.2 50.2	71.0 49.9	73.2 49.8
Total TPH		<50.3 50.3	<49.8 49.8	526 49.9	<50.2 50.2	128 49.9	73.2 49.8

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644199



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 09:12 am

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644199-019	644199-020	644199-021	644199-022		
	<i>Field Id:</i>	FS19	FS20	FS21	FS22		
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Nov-20-19 15:20	Nov-20-19 15:25	Nov-20-19 15:30	Nov-20-19 15:40		
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11	Nov-22-19 15:11		
	<i>Analyzed:</i>	Nov-23-19 01:11	Nov-23-19 02:20	Nov-23-19 02:38	Nov-23-19 02:55		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
m,p-Xylenes		<0.00403 0.00403	<0.00403 0.00403	<0.00402 0.00402	<0.00404 0.00404		
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202		
Chloride by EPA 300	<i>Extracted:</i>	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11		
	<i>Analyzed:</i>	Nov-23-19 10:35	Nov-23-19 10:40	Nov-23-19 10:46	Nov-23-19 11:04		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		111 9.94	480 9.98	88.6 9.82	119 9.88		
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30		
	<i>Analyzed:</i>	Nov-23-19 08:33	Nov-23-19 08:52	Nov-23-19 09:12	Nov-23-19 09:32		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<49.9 49.9	<50.3 50.3	<50.1 50.1		
Diesel Range Organics (DRO)		<50.2 50.2	<49.9 49.9	<50.3 50.3	<50.1 50.1		
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.9 49.9	<50.3 50.3	<50.1 50.1		
Total GRO-DRO		<50.2 50.2	<49.9 49.9	<50.3 50.3	<50.1 50.1		
Total TPH		<50.2 50.2	<49.9 49.9	<50.3 50.3	<50.1 50.1		

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS01** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-001 Date Collected: 11.20.19 13.25 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	118	10.1	mg/kg	11.23.19 08.13		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 00.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	327	50.2	mg/kg	11.23.19 00.21		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	149	50.2	mg/kg	11.23.19 00.21		1
Total GRO-DRO	PHC628	327	50.2	mg/kg	11.23.19 00.21		1
Total TPH	PHC635	476	50.2	mg/kg	11.23.19 00.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.23.19 00.21	
o-Terphenyl	84-15-1	122	%	70-135	11.23.19 00.21	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS01**
 Lab Sample Id: 644199-001

Matrix: Soil
 Date Collected: 11.20.19 13.25

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 03.31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 03.31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 03.31	U	1
m,p-Xylenes	179601-23-1	0.00458	0.00400	mg/kg	11.23.19 03.31		1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 03.31	U	1
Total Xylenes	1330-20-7	0.00458	0.00200	mg/kg	11.23.19 03.31		1
Total BTEX		0.00458	0.00200	mg/kg	11.23.19 03.31		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	11.23.19 03.31		
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.23.19 03.31		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS02** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-002 Date Collected: 11.20.19 13.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.3	9.92	mg/kg	11.23.19 08.19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.23.19 00.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	148	50.3	mg/kg	11.23.19 00.41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	99.3	50.3	mg/kg	11.23.19 00.41		1
Total GRO-DRO	PHC628	148	50.3	mg/kg	11.23.19 00.41		1
Total TPH	PHC635	247	50.3	mg/kg	11.23.19 00.41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.23.19 00.41	
o-Terphenyl	84-15-1	122	%	70-135	11.23.19 00.41	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS02**
 Lab Sample Id: 644199-002

Matrix: Soil
 Date Collected: 11.20.19 13.30

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 03.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 03.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 03.51	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.23.19 03.51	U	1
o-Xylene	95-47-6	0.00486	0.00200	mg/kg	11.23.19 03.51		1
Total Xylenes	1330-20-7	0.00486	0.00200	mg/kg	11.23.19 03.51		1
Total BTEX		0.00486	0.00200	mg/kg	11.23.19 03.51		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.23.19 03.51		
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.23.19 03.51		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS03** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-003 Date Collected: 11.20.19 13.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	83.3	9.98	mg/kg	11.23.19 08.25		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 01.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	95.1	49.9	mg/kg	11.23.19 01.01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	65.5	49.9	mg/kg	11.23.19 01.01		1
Total GRO-DRO	PHC628	95.1	49.9	mg/kg	11.23.19 01.01		1
Total TPH	PHC635	161	49.9	mg/kg	11.23.19 01.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	11.23.19 01.01	
o-Terphenyl	84-15-1	98	%	70-135	11.23.19 01.01	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS03**
 Lab Sample Id: 644199-003

Matrix: Soil
 Date Collected: 11.20.19 13.40

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 04.10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 04.10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 04.10	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.23.19 04.10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 04.10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 04.10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 04.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.23.19 04.10		
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.23.19 04.10		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS04** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-004 Date Collected: 11.20.19 13.45 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	189	10.1	mg/kg	11.23.19 08.31		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 01.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	68.4	49.9	mg/kg	11.23.19 01.20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	50.1	49.9	mg/kg	11.23.19 01.20		1
Total GRO-DRO	PHC628	68.4	49.9	mg/kg	11.23.19 01.20		1
Total TPH	PHC635	119	49.9	mg/kg	11.23.19 01.20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.23.19 01.20	
o-Terphenyl	84-15-1	113	%	70-135	11.23.19 01.20	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS04**
Lab Sample Id: 644199-004

Matrix: Soil
Date Collected: 11.20.19 13.45

Date Received: 11.22.19 09.12
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 04.29	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 04.29	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 04.29	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 04.29	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 04.29	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 04.29	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 04.29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.23.19 04.29		
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.23.19 04.29		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS05** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-005 Date Collected: 11.20.19 13.50 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	85.8	10.0	mg/kg	11.23.19 08.37		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 02.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	11.23.19 02.00	
o-Terphenyl	84-15-1	120	%	70-135	11.23.19 02.00	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS05**
Lab Sample Id: 644199-005

Matrix: Soil
Date Collected: 11.20.19 13.50

Date Received: 11.22.19 09.12
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 04.48	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 04.48	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 04.48	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 04.48	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 04.48	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 04.48	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 04.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.23.19 04.48		
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.23.19 04.48		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS06** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-006 Date Collected: 11.20.19 13.55 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	80.2	9.92	mg/kg	11.23.19 08.43		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.23.19 02.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.23.19 02.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.23.19 02.19	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.23.19 02.19	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.23.19 02.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	11.23.19 02.19	
o-Terphenyl	84-15-1	117	%	70-135	11.23.19 02.19	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS06**
Lab Sample Id: 644199-006

Matrix: Soil
Date Collected: 11.20.19 13.55

Date Received: 11.22.19 09.12
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 05.07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 05.07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 05.07	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.23.19 05.07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 05.07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 05.07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 05.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	11.23.19 05.07		
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.23.19 05.07		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS07** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-007 Date Collected: 11.20.19 14.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.8	9.94	mg/kg	11.23.19 08.49		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 02.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 02.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 02.39	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 02.39	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 02.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	11.23.19 02.39	
o-Terphenyl	84-15-1	110	%	70-135	11.23.19 02.39	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS07**
 Lab Sample Id: 644199-007

Matrix: Soil
 Date Collected: 11.20.19 14.00

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 05.26	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 05.26	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 05.26	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 05.26	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 05.26	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 05.26	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 05.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.23.19 05.26		
1,4-Difluorobenzene	540-36-3	95	%	70-130	11.23.19 05.26		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS08** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-008 Date Collected: 11.20.19 14.05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	68.1	10.1	mg/kg	11.23.19 08.55		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.23.19 02.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.23.19 02.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.23.19 02.59	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.23.19 02.59	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.23.19 02.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.23.19 02.59	
o-Terphenyl	84-15-1	103	%	70-135	11.23.19 02.59	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS08**
 Lab Sample Id: 644199-008

Matrix: Soil
 Date Collected: 11.20.19 14.05

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 05.45	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 05.45	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 05.45	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.23.19 05.45	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 05.45	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 05.45	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 05.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.23.19 05.45		
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.23.19 05.45		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS09** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-009 Date Collected: 11.20.19 14.10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.22.19 13.11 Basis: Wet Weight
 Seq Number: 3108483

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	26.1	9.98	mg/kg	11.23.19 09.01		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.23.19 03.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.23.19 03.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.23.19 03.18	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.23.19 03.18	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.23.19 03.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	11.23.19 03.18	
o-Terphenyl	84-15-1	97	%	70-135	11.23.19 03.18	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS09**
 Lab Sample Id: 644199-009

Matrix: Soil
 Date Collected: 11.20.19 14.10

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108514

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 06.04	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 06.04	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 06.04	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 06.04	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 06.04	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 06.04	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 06.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.23.19 06.04		
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.23.19 06.04		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS10**
Lab Sample Id: 644199-010

Matrix: Soil
Date Collected: 11.20.19 14.15

Date Received: 11.22.19 09.12
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3108509

Date Prep: 11.23.19 08.11

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	233	9.98	mg/kg	11.23.19 09.18		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3108599

Date Prep: 11.22.19 17.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.23.19 03.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.23.19 03.38	
o-Terphenyl	84-15-1	99	%	70-135	11.23.19 03.38	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS10**
 Lab Sample Id: 644199-010

Matrix: Soil
 Date Collected: 11.20.19 14.15

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.22.19 22.34	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.22.19 22.34	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.22.19 22.34	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.22.19 22.34	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.22.19 22.34	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.22.19 22.34	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.22.19 22.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.22.19 22.34		
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.22.19 22.34		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS11** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-011 Date Collected: 11.20.19 14.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	246	9.94	mg/kg	11.23.19 09.36		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.23.19 03.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.23.19 03.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.23.19 03.58	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.23.19 03.58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.23.19 03.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.23.19 03.58	
o-Terphenyl	84-15-1	98	%	70-135	11.23.19 03.58	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS11**
 Lab Sample Id: 644199-011

Matrix: Soil
 Date Collected: 11.20.19 14.20

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.22.19 22.52	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.22.19 22.52	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.22.19 22.52	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.22.19 22.52	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.22.19 22.52	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.22.19 22.52	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.22.19 22.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.22.19 22.52		
1,4-Difluorobenzene	540-36-3	91	%	70-130	11.22.19 22.52		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS12** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-012 Date Collected: 11.20.19 14.25 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	76.0	9.96	mg/kg	11.23.19 09.42		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.23.19 04.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.23.19 04.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.23.19 04.17	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.23.19 04.17	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.23.19 04.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	11.23.19 04.17	
o-Terphenyl	84-15-1	100	%	70-135	11.23.19 04.17	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS12**
Lab Sample Id: 644199-012

Matrix: Soil
Date Collected: 11.20.19 14.25

Date Received: 11.22.19 09.12
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.22.19 23.09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.22.19 23.09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.22.19 23.09	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.22.19 23.09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.22.19 23.09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.22.19 23.09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.22.19 23.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	93	%	70-130	11.22.19 23.09		
4-Bromofluorobenzene	460-00-4	118	%	70-130	11.22.19 23.09		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS13** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-013 Date Collected: 11.20.19 14.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	58.9	9.88	mg/kg	11.23.19 09.48		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.23.19 04.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.23.19 04.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.23.19 04.37	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.23.19 04.37	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.23.19 04.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.23.19 04.37	
o-Terphenyl	84-15-1	104	%	70-135	11.23.19 04.37	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS13**
 Lab Sample Id: 644199-013

Matrix: Soil
 Date Collected: 11.20.19 14.30

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.22.19 23.27	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.22.19 23.27	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.22.19 23.27	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.22.19 23.27	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.22.19 23.27	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.22.19 23.27	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.22.19 23.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	11.22.19 23.27		
1,4-Difluorobenzene	540-36-3	92	%	70-130	11.22.19 23.27		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS14** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-014 Date Collected: 11.20.19 14.35 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	62.8	10.1	mg/kg	11.23.19 09.53		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108599

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.23.19 04.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.23.19 04.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.23.19 04.57	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.23.19 04.57	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.23.19 04.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	11.23.19 04.57	
o-Terphenyl	84-15-1	100	%	70-135	11.23.19 04.57	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS14**
Lab Sample Id: 644199-014

Matrix: Soil
Date Collected: 11.20.19 14.35

Date Received: 11.22.19 09.12
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3108515

Prep Method: SW5030B

% Moisture:

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.22.19 23.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.22.19 23.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.22.19 23.44	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.22.19 23.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.22.19 23.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.22.19 23.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.22.19 23.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.22.19 23.44		
4-Bromofluorobenzene	460-00-4	124	%	70-130	11.22.19 23.44		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS15** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-015 Date Collected: 11.20.19 15.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	610	10.0	mg/kg	11.23.19 09.59		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108589

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 08.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	426	49.9	mg/kg	11.23.19 08.52		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	100	49.9	mg/kg	11.23.19 08.52		1
Total GRO-DRO	PHC628	426	49.9	mg/kg	11.23.19 08.52		1
Total TPH	PHC635	526	49.9	mg/kg	11.23.19 08.52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.23.19 08.52	
o-Terphenyl	84-15-1	107	%	70-135	11.23.19 08.52	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS15**
 Lab Sample Id: 644199-015

Matrix: Soil
 Date Collected: 11.20.19 15.00

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 00.02	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 00.02	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 00.02	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.23.19 00.02	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 00.02	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 00.02	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 00.02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.23.19 00.02		
1,4-Difluorobenzene	540-36-3	94	%	70-130	11.23.19 00.02		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS16** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-016 Date Collected: 11.20.19 15.05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	880	10.1	mg/kg	11.23.19 10.17		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108577

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 07.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 07.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 07.34	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 07.34	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 07.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	11.23.19 07.34	
o-Terphenyl	84-15-1	115	%	70-135	11.23.19 07.34	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS16**
 Lab Sample Id: 644199-016

Matrix: Soil
 Date Collected: 11.20.19 15.05

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 00.19	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 00.19	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 00.19	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.23.19 00.19	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 00.19	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 00.19	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 00.19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.23.19 00.19		
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.23.19 00.19		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS17** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-017 Date Collected: 11.20.19 15.10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	154	10.1	mg/kg	11.23.19 10.23		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108577

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 07.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	71.0	49.9	mg/kg	11.23.19 07.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	56.5	49.9	mg/kg	11.23.19 07.53		1
Total GRO-DRO	PHC628	71.0	49.9	mg/kg	11.23.19 07.53		1
Total TPH	PHC635	128	49.9	mg/kg	11.23.19 07.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.23.19 07.53	
o-Terphenyl	84-15-1	107	%	70-135	11.23.19 07.53	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS17**
 Lab Sample Id: 644199-017

Matrix: Soil
 Date Collected: 11.20.19 15.10

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 00.36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 00.36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 00.36	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.23.19 00.36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 00.36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 00.36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 00.36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.23.19 00.36		
1,4-Difluorobenzene	540-36-3	93	%	70-130	11.23.19 00.36		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS18** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-018 Date Collected: 11.20.19 15.15 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	392	10.0	mg/kg	11.23.19 10.29		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108577

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.23.19 08.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	73.2	49.8	mg/kg	11.23.19 08.13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.23.19 08.13	U	1
Total GRO-DRO	PHC628	73.2	49.8	mg/kg	11.23.19 08.13		1
Total TPH	PHC635	73.2	49.8	mg/kg	11.23.19 08.13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.23.19 08.13	
o-Terphenyl	84-15-1	111	%	70-135	11.23.19 08.13	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS18**
 Lab Sample Id: 644199-018

Matrix: Soil
 Date Collected: 11.20.19 15.15

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 00.54	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 00.54	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 00.54	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 00.54	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 00.54	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 00.54	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 00.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.23.19 00.54		
1,4-Difluorobenzene	540-36-3	93	%	70-130	11.23.19 00.54		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS19** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-019 Date Collected: 11.20.19 15.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	111	9.94	mg/kg	11.23.19 10.35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108577

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 08.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 08.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 08.33	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 08.33	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 08.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.23.19 08.33	
o-Terphenyl	84-15-1	105	%	70-135	11.23.19 08.33	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS19**
 Lab Sample Id: 644199-019

Matrix: Soil
 Date Collected: 11.20.19 15.20

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 01.11	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 01.11	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 01.11	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 01.11	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 01.11	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 01.11	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 01.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	93	%	70-130	11.23.19 01.11		
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.23.19 01.11		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS20** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-020 Date Collected: 11.20.19 15.25 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	480	9.98	mg/kg	11.23.19 10.40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108577

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 08.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.23.19 08.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.23.19 08.52	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.23.19 08.52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.23.19 08.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	11.23.19 08.52	
o-Terphenyl	84-15-1	103	%	70-135	11.23.19 08.52	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS20**
 Lab Sample Id: 644199-020

Matrix: Soil
 Date Collected: 11.20.19 15.25

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 02.20	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 02.20	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 02.20	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 02.20	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 02.20	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 02.20	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 02.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.23.19 02.20		
1,4-Difluorobenzene	540-36-3	92	%	70-130	11.23.19 02.20		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS21** Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-021 Date Collected: 11.20.19 15.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	88.6	9.82	mg/kg	11.23.19 10.46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108577

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.23.19 09.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.23.19 09.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.23.19 09.12	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.23.19 09.12	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.23.19 09.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	11.23.19 09.12	
o-Terphenyl	84-15-1	102	%	70-135	11.23.19 09.12	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS21**
 Lab Sample Id: 644199-021

Matrix: Soil
 Date Collected: 11.20.19 15.30

Date Received: 11.22.19 09.12
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 02.38	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 02.38	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 02.38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 02.38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 02.38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 02.38	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 02.38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	11.23.19 02.38		
1,4-Difluorobenzene	540-36-3	92	%	70-130	11.23.19 02.38		



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS22 Matrix: Soil Date Received: 11.22.19 09.12
 Lab Sample Id: 644199-022 Date Collected: 11.20.19 15.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108509

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	119	9.88	mg/kg	11.23.19 11.04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108577

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.23.19 09.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.23.19 09.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.23.19 09.32	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.23.19 09.32	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.23.19 09.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.23.19 09.32	
o-Terphenyl	84-15-1	106	%	70-135	11.23.19 09.32	



Certificate of Analytical Results 644199

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS22
Lab Sample Id: 644199-022

Matrix: Soil
Date Collected: 11.20.19 15.40

Date Received: 11.22.19 09.12
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 15.11

Basis: Wet Weight

Seq Number: 3108515

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 02.55	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 02.55	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 02.55	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.23.19 02.55	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 02.55	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 02.55	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 02.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	127	%	70-130	11.23.19 02.55		
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.23.19 02.55		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3108483

MB Sample Id: 7691021-1-BLK

Matrix: Solid

LCS Sample Id: 7691021-1-BKS

Prep Method: E300P

Date Prep: 11.22.19

LCSD Sample Id: 7691021-1-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	254	102	255	102	90-110	0	20	mg/kg	11.22.19 18:22	

Analytical Method: Chloride by EPA 300

Seq Number: 3108509

MB Sample Id: 7691034-1-BLK

Matrix: Solid

LCS Sample Id: 7691034-1-BKS

Prep Method: E300P

Date Prep: 11.23.19

LCSD Sample Id: 7691034-1-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	255	102	90-110	0	20	mg/kg	11.23.19 07:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3108483

Parent Sample Id: 644196-001

Matrix: Soil

MS Sample Id: 644196-001 S

Prep Method: E300P

Date Prep: 11.22.19

MSD Sample Id: 644196-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9.96	202	213	101	212	100	90-110	0	20	mg/kg	11.22.19 18:42	

Analytical Method: Chloride by EPA 300

Seq Number: 3108483

Parent Sample Id: 644196-011

Matrix: Soil

MS Sample Id: 644196-011 S

Prep Method: E300P

Date Prep: 11.22.19

MSD Sample Id: 644196-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	41.3	202	249	103	248	102	90-110	0	20	mg/kg	11.22.19 20:13	

Analytical Method: Chloride by EPA 300

Seq Number: 3108509

Parent Sample Id: 644199-010

Matrix: Soil

MS Sample Id: 644199-010 S

Prep Method: E300P

Date Prep: 11.23.19

MSD Sample Id: 644199-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	233	198	441	105	449	108	90-110	2	20	mg/kg	11.23.19 09:24	

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

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

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108577

MB Sample Id: 7691103-1-BLK

Matrix: Solid

LCS Sample Id: 7691103-1-BKS

Prep Method: SW8015P

Date Prep: 11.22.19

LCSD Sample Id: 7691103-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	913	91	896	90	70-135	2	35	mg/kg	11.23.19 05:55	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1080	108	70-135	5	35	mg/kg	11.23.19 05:55	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	112		125		130		70-135	%	11.23.19 05:55			
o-Terphenyl	122		128		121		70-135	%	11.23.19 05:55			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108589

MB Sample Id: 7691104-1-BLK

Matrix: Solid

LCS Sample Id: 7691104-1-BKS

Prep Method: SW8015P

Date Prep: 11.22.19

LCSD Sample Id: 7691104-1-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	930	93	911	91	70-135	2	35	mg/kg	11.23.19 05:55	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1050	105	70-135	0	35	mg/kg	11.23.19 05:55	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	133		121		118		70-135	%	11.23.19 05:55			
o-Terphenyl	128		117		118		70-135	%	11.23.19 05:55			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108599

MB Sample Id: 7691101-1-BLK

Matrix: Solid

LCS Sample Id: 7691101-1-BKS

Prep Method: SW8015P

Date Prep: 11.22.19

LCSD Sample Id: 7691101-1-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	947	95	859	86	70-135	10	35	mg/kg	11.22.19 21:04	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	991	99	70-135	10	35	mg/kg	11.22.19 21:04	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	91		117		108		70-135	%	11.22.19 21:04			
o-Terphenyl	97		118		109		70-135	%	11.22.19 21:04			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108577

Matrix: Solid

MB Sample Id: 7691103-1-BLK

Prep Method: SW8015P

Date Prep: 11.22.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.23.19 05:36	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108589

Matrix: Solid

Prep Method: SW8015P

Date Prep: 11.22.19

MB Sample Id: 7691104-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.23.19 05:36	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108599

Matrix: Solid

Prep Method: SW8015P

Date Prep: 11.22.19

MB Sample Id: 7691101-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.22.19 20:44	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108577

Matrix: Soil

Prep Method: SW8015P

Date Prep: 11.22.19

Parent Sample Id: 644205-013

MS Sample Id: 644205-013 S

MSD Sample Id: 644205-013 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)	<49.9	997	930	93	889	89	70-135	5	35	mg/kg	11.23.19 06:54	
Diesel Range Organics (DRO)	<49.9	997	1130	113	1060	106	70-135	6	35	mg/kg	11.23.19 06:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		127		70-135	%	11.23.19 06:54
o-Terphenyl	122		113		70-135	%	11.23.19 06:54

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108589

Matrix: Soil

Prep Method: SW8015P

Date Prep: 11.22.19

Parent Sample Id: 644205-011

MS Sample Id: 644205-011 S

MSD Sample Id: 644205-011 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	919	92	886	89	70-135	4	35	mg/kg	11.23.19 06:54	
Diesel Range Organics (DRO)	247	1000	1040	79	1020	77	70-135	2	35	mg/kg	11.23.19 06:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		114		70-135	%	11.23.19 06:54
o-Terphenyl	112		112		70-135	%	11.23.19 06:54

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

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

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108599

Parent Sample Id: 644196-006

Matrix: Soil

MS Sample Id: 644196-006 S

Prep Method: SW8015P

Date Prep: 11.22.19

MSD Sample Id: 644196-006 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)	<49.9	997	923	93	1080	107	70-135	16	35	mg/kg	11.22.19 22:04	
Diesel Range Organics (DRO)	<49.9	997	1050	105	1210	120	70-135	14	35	mg/kg	11.22.19 22:04	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		131		70-135	%	11.22.19 22:04
o-Terphenyl	112		127		70-135	%	11.22.19 22:04

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108514

MB Sample Id: 7691041-1-BLK

Matrix: Solid

LCS Sample Id: 7691041-1-BKS

Prep Method: SW5030B

Date Prep: 11.22.19

LCSD Sample Id: 7691041-1-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	0.0890	89	0.0913	91	70-130	3	35	mg/kg	11.22.19 21:34	
Toluene	<0.00200	0.100	0.0894	89	0.0916	92	70-130	2	35	mg/kg	11.22.19 21:34	
Ethylbenzene	<0.00200	0.100	0.0885	89	0.0903	90	71-129	2	35	mg/kg	11.22.19 21:34	
m,p-Xylenes	<0.00400	0.200	0.187	94	0.191	96	70-135	2	35	mg/kg	11.22.19 21:34	
o-Xylene	<0.00200	0.100	0.0948	95	0.0974	97	71-133	3	35	mg/kg	11.22.19 21:34	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		102		103		70-130	%	11.22.19 21:34
4-Bromofluorobenzene	108		113		117		70-130	%	11.22.19 21:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108515

MB Sample Id: 7691042-1-BLK

Matrix: Solid

LCS Sample Id: 7691042-1-BKS

Prep Method: SW5030B

Date Prep: 11.22.19

LCSD Sample Id: 7691042-1-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	0.105	105	0.0963	96	70-130	9	35	mg/kg	11.22.19 20:50	
Toluene	0.000810	0.100	0.0975	98	0.0909	91	70-130	7	35	mg/kg	11.22.19 20:50	
Ethylbenzene	<0.00200	0.100	0.106	106	0.0993	99	71-129	7	35	mg/kg	11.22.19 20:50	
m,p-Xylenes	<0.00400	0.200	0.211	106	0.197	99	70-135	7	35	mg/kg	11.22.19 20:50	
o-Xylene	<0.00200	0.100	0.105	105	0.0988	99	71-133	6	35	mg/kg	11.22.19 20:50	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		96		93		70-130	%	11.22.19 20:50
4-Bromofluorobenzene	111		117		117		70-130	%	11.22.19 20:50

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108514

Parent Sample Id: 644196-001

Matrix: Soil

MS Sample Id: 644196-001 S

Prep Method: SW5030B

Date Prep: 11.22.19

MSD Sample Id: 644196-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0832	82	0.0822	81	70-130	1	35	mg/kg	11.22.19 22:12	
Toluene	<0.00202	0.101	0.0855	85	0.0859	85	70-130	0	35	mg/kg	11.22.19 22:12	
Ethylbenzene	<0.00202	0.101	0.0851	84	0.0852	84	71-129	0	35	mg/kg	11.22.19 22:12	
m,p-Xylenes	<0.00101	0.202	0.181	90	0.181	90	70-135	0	35	mg/kg	11.22.19 22:12	
o-Xylene	<0.00202	0.101	0.0918	91	0.0920	91	71-133	0	35	mg/kg	11.22.19 22:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		101		70-130	%	11.22.19 22:12
4-Bromofluorobenzene	118		120		70-130	%	11.22.19 22:12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108515

Parent Sample Id: 644199-010

Matrix: Soil

MS Sample Id: 644199-010 S

Prep Method: SW5030B

Date Prep: 11.22.19

MSD Sample Id: 644199-010 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	0.0777	77	0.0866	87	70-130	11	35	mg/kg	11.22.19 21:25	
Toluene	0.000833	0.101	0.0760	74	0.0812	80	70-130	7	35	mg/kg	11.22.19 21:25	
Ethylbenzene	<0.00202	0.101	0.0809	80	0.0878	88	71-129	8	35	mg/kg	11.22.19 21:25	
m,p-Xylenes	<0.00101	0.202	0.162	80	0.174	87	70-135	7	35	mg/kg	11.22.19 21:25	
o-Xylene	<0.00202	0.101	0.0811	80	0.0872	87	71-133	7	35	mg/kg	11.22.19 21:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		94		70-130	%	11.22.19 21:25
4-Bromofluorobenzene	123		116		70-130	%	11.22.19 21:25

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: 1844199

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 668-3535
 McAllen, TX (432) 704-5440 El Paso, TX (910) 555-3443 Lubbock, TX (806) 794-4200
 Houston, NM (775-382-2100) Phoenix, AZ (480) 555-0000 Atlanta, GA (770) 448-0000 Tampa, FL (813)

Page 1 of 2

Project Manager:	Dan Moir	Bill to: (if different)	Ryan Linder
Company Name:	L.T. Environmental, Inc., Portland office	Company Name:	XTO-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432.704.5176	Email:	dmair@xtoenergy.com timlinder@xtoenergy.com

Work Order Comments Program: UST/PST ☐ Prp ☐ Brownfields ☐ RC ☐ Superfund ☐ State of Project: Reporting Level II ☐ Level III ☐ ST/UST ☐ Prp ☐ Level IV ☐ Deliverables: EDO ☐ ADAPT ☐ Other:	

Project Name:	Kes Low CDP	Turn Around	ANALYSIS REQUEST								Work Order Notes
Filing Number:	012917277	Routine ☐									
P.O. Number:	1116/17	Flush ☒									
Sampler's Name:	Robert McAfee	Dye Date									

SAMPLE RECEIPT		Temp Struck	Ring No	Well loc	Tag No
Temperature (°C):				Thermometer ID	
Placed Inlet:	Yes	No			
Cooler Canbody Seals:	Yes	No			
Sample Canbody Seals:	Yes	No			
				Correction Factor	
				Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA)	BTEX (RSL)	Chloride	Sample Comments
F501	S	11/20/15	1325	0.5'	1	X	X	Y	Composite
F502			1440		1	X	X	X	
F503			1340		1	X	X	X	
F504			1345		X	X	X		
F505			1350		X	X	X		
F506			1355		X	X	X		
F507			1400		X	X	X		
F508			1405		X	X	X		
F509			1410		X	X	X		
F510			1415		X	X	X		

Total	200.7 / 6010	200.8 / 6020:
BRCA1	13PPM	Toxins 11
AL	Sb	As
Ba	B	Ca
Cr	Co	Cu
Fe	Pb	Mg
Mn	Mo	Ni
K	Sr	Sn
U	V	Zn
Circle Method(s) and Metal(s) for the analyzed	TCLP / SPLP 6010	BRCA1
Sb	As	Ba
B	Ca	Co
Cd	Cr	Cu
Pb	Mn	Mo
Ni	Se	Ag
Ti	U	
1631/245.1/7470 /7471	Hg	

ex: Signature of this document are fingerprint of sample contributors a valid purchase order from client belonging to Kinetix, its affiliates and subsidiaries. It assigns standard terms and conditions to Kinetix. Kinetix will be deemed to be the best 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 Kinetix. A minimum charge of \$125.00 will be applied to each project and a charge of \$5 for each sample submitted to Kinetix, but not less than \$100.00. These fees will be reduced where previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		11/21/19 9:05			11/22/19 9:12



Chain of Custody

Work Order No: 0441199

Houston, TX (281) 240-4298 Dallas, TX (214) 902-0200 San Antonio, TX (210) 509-3234
Midland, TX (432) 704-5440 El Paso, TX (915) 265-3443 Lubbock, TX (806) 794-1296
Midland, NM (375) 360-7550 Phoenix, AZ (480) 305-0900 Atlanta, GA (770) 448-8000 Tampa, FL (813) 430-3000

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Page 2 of 3

Project Manager:	Dan Mac	Lab by (if above):	Kyle Lillard
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:	Cathead, NM
Phone:	432.704.5178	Email:	dmac@ltyenv.com timc@xtoenergy.com

Program: UST/EGT	☐ P99	☐ Brownfields	☐ RC	☐ Superfund
State of Project:				
Reporting Level II	☐ Level III	☐ STATIST	☐ DRP	☐ Level IV
Deliverables: EDD	☐	ADAPT	☐	Other:

Project Name:	Res Draw CDP	Turn Around	
Project Number:	012919277	Routing:	☐
P.O. Number:	11/8/19	Route:	24hr
Sampler's Name:	Robert McAlister	Date:	

SAMPLE RECEIPT	Temp Blank	Yes	No	Wgt Ice	Yes	No
Temperature (°C):						
Receiving Initial:	Yes	No		Correction Factor		
Cooler Cradley Scale:	Yes	No		Total Containers:		
Sample Cradley Scale:	Yes	No				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA 8015)	BTEX (EPA 8-8021)	Chloride (EPA 305.2)	ANALYSIS REQUEST																Sample Comments																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Total 200.7 / 6010 200.8 / 6020:

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

8RCRA 13PPEM

TCLP / SPLP 6010 8RCRA

SB As Be Bi B Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Se Ag BiO2 Na Sr Ti Sn U V Zn

Hg

Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subsidiaries. It assigns standard terms and conditions of sale. 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 \$15.00 will be applied to each project with 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)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

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



Chain of Custody

Work Order No: 1644199

Houston, TX (281) 240-4200 Dallas, TX (214) 900-0300 San Antonio, TX (710) 409-3334
 Midland, TX (432-704-5440) El Paso, TX (915) 241-3443 Lubbock, TX (806) 764-1296

Phoenix, AZ (602) 305-0100 Albuquerque, NM (505) 241-4400 Tampa, FL (813) 620-3000

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Project Manager:	Dan Mair	Cell to: (if different)	Kyle Little
Company Name:	LT Environmental, Inc. - Permian office	Company Name:	XTC Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79706	City, State ZIP:	Carlsbad, NM
Phone:	432 704 5176	Email:	perman@xenco.com (maird@xenco.com)

Work Order Comments	
Program: USTPST	☐ PGP ☐ Brownfields ☐ bc ☐ Superfund
State of Project:	
Reporting Level II	☐ Level III ☐ DUST ☐ BGP ☐ Level IV ☐
Deliverables: ECHO	☐ ADAPT ☐ Other:

Project Name:	Res Data CDP	Turn Around	
Project Number:	012419277	Routing	☐
P.O. Number:	11/18/17	Route:	24hr
Sampler's Name:	Robert McAlister	Date Date:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Vial Ice:	Yes	No
Temperature (°C):						
Received Initial:	Yes	No		Correction Factor:		
Cooler Cleanly Seals:	Yes	No		Total Containers:		
Sample Custody Seals:	Yes	No				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers
F521	S	11/24/17	1630	0.5'	1
F522	S	11/24/17	1540	0.5'	1

TPH (EPA 8015) ☒

BTEX (EPA 8-8021) ☒

Chloride (EPA 806.0) ☒

ANALYSIS REQUEST

Work Order Notes

TAT starts the day received by the lab, if received by a depot.

Sample Comments

Composite composite

Total 200.7 / 6010	200.8 / 6020:	GRCA 13PPM Texas 11 A 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 Method(s) to be analyzed	TCLP / SPLP 6010: GRCA 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 acknowledgment of sample condition is valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions to Xenco. 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 subject to terms previously negotiated.

Relinquished by (Signature)	Received by (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	11/24/17 9:05

Relinquished by (Signature)	Received by (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	11/24/17 9:05



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/22/2019 09:12:00 AM

Work Order #: 644199

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist

Comments

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 11/22/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/23/2019

Analytical Report 644299

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

25-NOV-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



25-NOV-19

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

Reference: XENCO Report No(s): **644299**
Ross Draw CDP
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 644299. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 644299 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in dark ink, appearing to read 'Jessica Kramer', is written over a horizontal line.

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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

**Sample Cross Reference 644299****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS23	S	11-22-19 12:40	0.5 ft	644299-001
FS24	S	11-22-19 12:43	0.5 ft	644299-002
FS25	S	11-22-19 12:49	0.5 ft	644299-003
FS26	S	11-22-19 14:05	0.5 ft	644299-004
FS27	S	11-22-19 14:08	0.5 ft	644299-005
FS28	S	11-22-19 14:13	0.5 ft	644299-006
FS29	S	11-22-19 14:17	0.5 ft	644299-007
FS30	S	11-22-19 14:21	0.5 ft	644299-008
FS31	S	11-22-19 14:26	0.5 ft	644299-009
FS32	S	11-22-19 14:30	0.5 ft	644299-010
FS33	S	11-22-19 14:34	0.5 ft	644299-011
FS34	S	11-22-19 14:38	0.5 ft	644299-012
FS35	S	11-22-19 12:40	0.5 ft	644299-013
FS36	S	11-22-19 12:45	0.5 ft	644299-014
FS37	S	11-22-19 12:50	0.5 ft	644299-015
FS38	S	11-22-19 12:55	0.5 ft	644299-016
FS39	S	11-22-19 13:00	0.5 ft	644299-017
FS40	S	11-22-19 13:10	0.5 ft	644299-018
FS41	S	11-22-19 13:01	0.5 ft	644299-019
FS42	S	11-22-19 13:05	0.5 ft	644299-020
FS43	S	11-22-19 13:08	0.5 ft	644299-021
FS44	S	11-22-19 13:13	0.5 ft	644299-022
FS45	S	11-22-19 13:17	0.5 ft	644299-023
FS46	S	11-22-19 13:21	0.5 ft	644299-024



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 644299

Report Date: 25-NOV-19
Date Received: 11/22/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3108516 BTEX by EPA 8021B

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

Batch: LBA-3108517 BTEX by EPA 8021B

Lab Sample ID 644299-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 644299-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020.

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

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

Certificate of Analysis Summary 644299



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 04:48 pm

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	644299-001	644299-002	644299-003	644299-004	644299-005	644299-006
	Field Id:	FS23	FS24	FS25	FS26	FS27	FS28
	Depth:	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Nov-22-19 12:40	Nov-22-19 12:43	Nov-22-19 12:49	Nov-22-19 14:05	Nov-22-19 14:08	Nov-22-19 14:13
BTEX by EPA 8021B	Extracted:	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11
	Analyzed:	Nov-23-19 09:10	Nov-23-19 09:29	Nov-23-19 09:48	Nov-23-19 10:13	Nov-23-19 10:26	Nov-23-19 10:45
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00402 0.00402	<0.00403 0.00403	<0.00403 0.00403	<0.00402 0.00402	<0.00401 0.00401	<0.00403 0.00403
o-Xylene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	Extracted:	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11
	Analyzed:	Nov-23-19 15:02	Nov-23-19 15:09	Nov-23-19 15:15	Nov-23-19 15:21	Nov-24-19 13:28	Nov-24-19 13:45
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		400 9.88	125 9.98	37.0 10.0	155 10.1	332 10.1	123 9.98
TPH by SW8015 Mod	Extracted:	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00
	Analyzed:	Nov-22-19 21:44	Nov-22-19 22:43	Nov-22-19 23:03	Nov-22-19 23:22	Nov-22-19 23:42	Nov-23-19 00:02
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)		<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0
Total GRO-DRO		<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0
Total TPH		<50.1 50.1	<50.3 50.3	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644299



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 04:48 pm

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644299-007	644299-008	644299-009	644299-010	644299-011	644299-012
	<i>Field Id:</i>	FS29	FS30	FS31	FS32	FS33	FS34
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-22-19 14:17	Nov-22-19 14:21	Nov-22-19 14:26	Nov-22-19 14:30	Nov-22-19 14:34	Nov-22-19 14:38
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11
	<i>Analyzed:</i>	Nov-23-19 11:04	Nov-23-19 11:24	Nov-23-19 11:43	Nov-23-19 12:02	Nov-23-19 13:05	Nov-23-19 13:25
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00404 0.00404	<0.00404 0.00404	<0.00402 0.00402	<0.00403 0.00403	<0.00399 0.00399	<0.00401 0.00401
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11
	<i>Analyzed:</i>	Nov-24-19 13:51	Nov-24-19 13:57	Nov-24-19 14:03	Nov-24-19 11:24	Nov-24-19 11:30	Nov-24-19 11:36
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		154 9.92	54.6 9.94	88.1 9.98	19.0 10.1	17.4 10.1	39.5 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00
	<i>Analyzed:</i>	Nov-23-19 00:21	Nov-23-19 00:41	Nov-23-19 01:01	Nov-23-19 01:20	Nov-23-19 02:00	Nov-23-19 02:19
	<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)		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.1 50.1	<50.2 50.2	<50.1 50.1
Diesel Range Organics (DRO)		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.1 50.1	<50.2 50.2	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.1 50.1	<50.2 50.2	<50.1 50.1
Total GRO-DRO		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.1 50.1	<50.2 50.2	<50.1 50.1
Total TPH		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.1 50.1	<50.2 50.2	<50.1 50.1

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644299



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 04:48 pm

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644299-013	644299-014	644299-015	644299-016	644299-017	644299-018
	<i>Field Id:</i>	FS35	FS36	FS37	FS38	FS39	FS40
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-22-19 12:40	Nov-22-19 12:45	Nov-22-19 12:50	Nov-22-19 12:55	Nov-22-19 13:00	Nov-22-19 13:10
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11
	<i>Analyzed:</i>	Nov-23-19 13:44	Nov-23-19 14:03	Nov-23-19 14:22	Nov-23-19 14:41	Nov-23-19 15:01	Nov-23-19 15:20
	<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	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201
m,p-Xylenes		<0.00402 0.00402	<0.00401 0.00401	<0.00399 0.00399	<0.00397 0.00397	<0.00398 0.00398	<0.00402 0.00402
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11
	<i>Analyzed:</i>	Nov-24-19 11:41	Nov-24-19 11:47	Nov-24-19 11:53	Nov-24-19 12:11	Nov-24-19 12:17	Nov-24-19 12:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		116 10.1	101 9.88	166 9.92	135 9.98	93.1 10.0	331 D 101
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:00
	<i>Analyzed:</i>	Nov-23-19 02:39	Nov-23-19 02:59	Nov-23-19 03:18	Nov-23-19 03:38	Nov-23-19 03:58	Nov-23-19 04:17
	<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	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.2 50.2
Diesel Range Organics (DRO)		<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.2 50.2
Total GRO-DRO		<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.2 50.2
Total TPH		<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.2 50.2

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644299



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Nov-22-19 04:48 pm

Report Date: 25-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644299-019	644299-020	644299-021	644299-022	644299-023	644299-024
	<i>Field Id:</i>	FS41	FS42	FS43	FS44	FS45	FS46
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-22-19 13:01	Nov-22-19 13:05	Nov-22-19 13:08	Nov-22-19 13:13	Nov-22-19 13:17	Nov-22-19 13:21
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11	Nov-22-19 18:11
	<i>Analyzed:</i>	Nov-23-19 15:39	Nov-23-19 15:58	Nov-23-19 11:36	Nov-23-19 11:54	Nov-23-19 12:11	Nov-23-19 12:28
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201
m,p-Xylenes		<0.00399 0.00399	<0.00398 0.00398	<0.00402 0.00402	<0.00397 0.00397	<0.00402 0.00402	<0.00402 0.00402
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11	Nov-23-19 08:11
	<i>Analyzed:</i>	Nov-24-19 12:40	Nov-24-19 12:46	Nov-24-19 12:52	Nov-24-19 12:58	Nov-24-19 13:04	Nov-24-19 13:10
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		944 D 99.2	663 D 99.8	1200 D 100	531 D 98.8	319 D 98.8	790 D 99.8
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-22-19 17:00	Nov-22-19 17:00	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30	Nov-22-19 17:30
	<i>Analyzed:</i>	Nov-23-19 04:37	Nov-23-19 04:57	Nov-23-19 09:12	Nov-23-19 09:32	Nov-23-19 09:51	Nov-23-19 10:11
	<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	<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<50.0 50.0
Diesel Range Organics (DRO)		<50.1 50.1	<50.3 50.3	61.9 50.3	<50.3 50.3	<50.2 50.2	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<50.0 50.0
Total GRO-DRO		<50.1 50.1	<50.3 50.3	61.9 50.3	<50.3 50.3	<50.2 50.2	<50.0 50.0
Total TPH		<50.1 50.1	<50.3 50.3	61.9 50.3	<50.3 50.3	<50.2 50.2	<50.0 50.0

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS23** Matrix: **Soil** Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-001 Date Collected: 11.22.19 12.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.23.19 08.11 Basis: **Wet Weight**
 Seq Number: 3108510

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	400	9.88	mg/kg	11.23.19 15.02		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.22.19 17.00 Basis: **Wet Weight**
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.22.19 21.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.22.19 21.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.22.19 21.44	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.22.19 21.44	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.22.19 21.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.22.19 21.44	
o-Terphenyl	84-15-1	104	%	70-135	11.22.19 21.44	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS23**
Lab Sample Id: 644299-001

Matrix: Soil
Date Collected: 11.22.19 12.40

Date Received: 11.22.19 16.48
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 09.10	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 09.10	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 09.10	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 09.10	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 09.10	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 09.10	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 09.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.23.19 09.10		
4-Bromofluorobenzene	460-00-4	103	%	70-130	11.23.19 09.10		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS24** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-002 Date Collected: 11.22.19 12.43 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108510

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	125	9.98	mg/kg	11.23.19 15.09		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.22.19 22.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.22.19 22.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.22.19 22.43	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.22.19 22.43	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.22.19 22.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	11.22.19 22.43	
o-Terphenyl	84-15-1	108	%	70-135	11.22.19 22.43	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS24**
 Lab Sample Id: 644299-002

Matrix: Soil
 Date Collected: 11.22.19 12.43

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 09.29	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 09.29	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 09.29	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 09.29	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 09.29	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 09.29	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 09.29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	11.23.19 09.29		
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.23.19 09.29		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS25** Matrix: **Soil** Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-003 Date Collected: 11.22.19 12.49 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.23.19 08.11 Basis: **Wet Weight**
 Seq Number: 3108510

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	37.0	10.0	mg/kg	11.23.19 15.15		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.22.19 17.00 Basis: **Wet Weight**
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.22.19 23.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.22.19 23.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.22.19 23.03	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.22.19 23.03	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.22.19 23.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	11.22.19 23.03	
o-Terphenyl	84-15-1	86	%	70-135	11.22.19 23.03	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS25**
 Lab Sample Id: 644299-003

Matrix: Soil
 Date Collected: 11.22.19 12.49

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 09.48	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 09.48	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 09.48	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 09.48	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 09.48	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 09.48	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 09.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.23.19 09.48		
1,4-Difluorobenzene	540-36-3	107	%	70-130	11.23.19 09.48		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS26** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-004 Date Collected: 11.22.19 14.05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108510

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	155	10.1	mg/kg	11.23.19 15.21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.22.19 23.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.22.19 23.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.22.19 23.22	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.22.19 23.22	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.22.19 23.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	11.22.19 23.22	
o-Terphenyl	84-15-1	111	%	70-135	11.22.19 23.22	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS26**
 Lab Sample Id: 644299-004

Matrix: Soil
 Date Collected: 11.22.19 14.05

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 10.13	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 10.13	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 10.13	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 10.13	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 10.13	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 10.13	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 10.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.23.19 10.13		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.23.19 10.13		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS27 Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-005 Date Collected: 11.22.19 14.08 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	332	10.1	mg/kg	11.24.19 13.28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.22.19 23.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.22.19 23.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.22.19 23.42	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.22.19 23.42	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.22.19 23.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	11.22.19 23.42	
o-Terphenyl	84-15-1	116	%	70-135	11.22.19 23.42	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS27**
Lab Sample Id: 644299-005

Matrix: **Soil**
Date Collected: 11.22.19 14.08

Date Received: 11.22.19 16.48
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: 11.22.19 18.11

Basis: **Wet Weight**

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 10.26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 10.26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 10.26	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.23.19 10.26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 10.26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 10.26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 10.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	122	%	70-130	11.23.19 10.26		
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.23.19 10.26		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS28** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-006 Date Collected: 11.22.19 14.13 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	123	9.98	mg/kg	11.24.19 13.45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.23.19 00.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.23.19 00.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.23.19 00.02	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.23.19 00.02	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.23.19 00.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	11.23.19 00.02	
o-Terphenyl	84-15-1	113	%	70-135	11.23.19 00.02	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS28**
 Lab Sample Id: 644299-006

Matrix: Soil
 Date Collected: 11.22.19 14.13

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 10.45	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 10.45	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 10.45	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 10.45	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 10.45	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 10.45	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 10.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	118	%	70-130	11.23.19 10.45		
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.23.19 10.45		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS29** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-007 Date Collected: 11.22.19 14.17 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	154	9.92	mg/kg	11.24.19 13.51		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 00.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.23.19 00.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.23.19 00.21	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.23.19 00.21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.23.19 00.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	11.23.19 00.21	
o-Terphenyl	84-15-1	118	%	70-135	11.23.19 00.21	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS29**
 Lab Sample Id: 644299-007

Matrix: Soil
 Date Collected: 11.22.19 14.17

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 11.04	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 11.04	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 11.04	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.23.19 11.04	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 11.04	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 11.04	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 11.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.23.19 11.04		
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.23.19 11.04		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS30** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-008 Date Collected: 11.22.19 14.21 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	54.6	9.94	mg/kg	11.24.19 13.57		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 00.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 00.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 00.41	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 00.41	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 00.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	11.23.19 00.41	
o-Terphenyl	84-15-1	110	%	70-135	11.23.19 00.41	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS30**
 Lab Sample Id: 644299-008

Matrix: Soil
 Date Collected: 11.22.19 14.21

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 11.24	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 11.24	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 11.24	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.23.19 11.24	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 11.24	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 11.24	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 11.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	11.23.19 11.24		
1,4-Difluorobenzene	540-36-3	82	%	70-130	11.23.19 11.24		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS31** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-009 Date Collected: 11.22.19 14.26 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	88.1	9.98	mg/kg	11.24.19 14.03		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.23.19 01.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.23.19 01.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.23.19 01.01	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.23.19 01.01	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.23.19 01.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	11.23.19 01.01	
o-Terphenyl	84-15-1	113	%	70-135	11.23.19 01.01	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS31**
 Lab Sample Id: 644299-009

Matrix: Soil
 Date Collected: 11.22.19 14.26

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 11.43	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 11.43	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 11.43	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 11.43	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 11.43	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 11.43	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 11.43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.23.19 11.43		
4-Bromofluorobenzene	460-00-4	114	%	70-130	11.23.19 11.43		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS32** Matrix: **Soil** Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-010 Date Collected: 11.22.19 14.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.23.19 08.11 Basis: **Wet Weight**
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19.0	10.1	mg/kg	11.24.19 11.24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.22.19 17.00 Basis: **Wet Weight**
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.23.19 01.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.23.19 01.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.23.19 01.20	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.23.19 01.20	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.23.19 01.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.23.19 01.20	
o-Terphenyl	84-15-1	116	%	70-135	11.23.19 01.20	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS32**
Lab Sample Id: 644299-010

Matrix: Soil
Date Collected: 11.22.19 14.30

Date Received: 11.22.19 16.48
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 12.02	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 12.02	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 12.02	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 12.02	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 12.02	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 12.02	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 12.02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	11.23.19 12.02		
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.23.19 12.02		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS33** Matrix: **Soil** Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-011 Date Collected: 11.22.19 14.34 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.23.19 08.11 Basis: **Wet Weight**
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.4	10.1	mg/kg	11.24.19 11.30		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.22.19 17.00 Basis: **Wet Weight**
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 02.00	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 02.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	11.23.19 02.00	
o-Terphenyl	84-15-1	109	%	70-135	11.23.19 02.00	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS33**
 Lab Sample Id: 644299-011

Matrix: Soil
 Date Collected: 11.22.19 14.34

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 13.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 13.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 13.05	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.23.19 13.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 13.05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 13.05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 13.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	11.23.19 13.05		
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.23.19 13.05		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS34** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-012 Date Collected: 11.22.19 14.38 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.5	10.1	mg/kg	11.24.19 11.36		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.23.19 02.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.23.19 02.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.23.19 02.19	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.23.19 02.19	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.23.19 02.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.23.19 02.19	
o-Terphenyl	84-15-1	106	%	70-135	11.23.19 02.19	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS34**
 Lab Sample Id: 644299-012

Matrix: Soil
 Date Collected: 11.22.19 14.38

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 13.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 13.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 13.25	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.23.19 13.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 13.25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 13.25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 13.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	88	%	70-130	11.23.19 13.25		
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.23.19 13.25		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS35** Matrix: **Soil** Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-013 Date Collected: 11.22.19 12.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.23.19 08.11 Basis: **Wet Weight**
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	116	10.1	mg/kg	11.24.19 11.41		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.22.19 17.00 Basis: **Wet Weight**
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.23.19 02.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.23.19 02.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.23.19 02.39	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.23.19 02.39	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.23.19 02.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	11.23.19 02.39	
o-Terphenyl	84-15-1	111	%	70-135	11.23.19 02.39	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS35**
 Lab Sample Id: 644299-013

Matrix: Soil
 Date Collected: 11.22.19 12.40

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 13.44	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 13.44	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 13.44	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 13.44	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 13.44	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 13.44	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 13.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	85	%	70-130	11.23.19 13.44		
4-Bromofluorobenzene	460-00-4	97	%	70-130	11.23.19 13.44		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS36** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-014 Date Collected: 11.22.19 12.45 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	101	9.88	mg/kg	11.24.19 11.47		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 02.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.23.19 02.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.23.19 02.59	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.23.19 02.59	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.23.19 02.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.23.19 02.59	
o-Terphenyl	84-15-1	108	%	70-135	11.23.19 02.59	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS36**
 Lab Sample Id: 644299-014

Matrix: Soil
 Date Collected: 11.22.19 12.45

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 14.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 14.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 14.03	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.23.19 14.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 14.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 14.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 14.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.23.19 14.03		
4-Bromofluorobenzene	460-00-4	118	%	70-130	11.23.19 14.03		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS37** Matrix: **Soil** Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-015 Date Collected: 11.22.19 12.50 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.23.19 08.11 Basis: **Wet Weight**
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	166	9.92	mg/kg	11.24.19 11.53		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.22.19 17.00 Basis: **Wet Weight**
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.23.19 03.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.23.19 03.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.23.19 03.18	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.23.19 03.18	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.23.19 03.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.23.19 03.18	
o-Terphenyl	84-15-1	107	%	70-135	11.23.19 03.18	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS37**
 Lab Sample Id: 644299-015

Matrix: Soil
 Date Collected: 11.22.19 12.50

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 14.22	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 14.22	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 14.22	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.23.19 14.22	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 14.22	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 14.22	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 14.22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.23.19 14.22		
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.23.19 14.22		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS38** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-016 Date Collected: 11.22.19 12.55 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	135	9.98	mg/kg	11.24.19 12.11		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.23.19 03.38	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.23.19 03.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	11.23.19 03.38	
o-Terphenyl	84-15-1	111	%	70-135	11.23.19 03.38	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS38**
 Lab Sample Id: 644299-016

Matrix: Soil
 Date Collected: 11.22.19 12.55

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.23.19 14.41	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.23.19 14.41	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.23.19 14.41	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.23.19 14.41	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.23.19 14.41	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.23.19 14.41	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.23.19 14.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.23.19 14.41		
4-Bromofluorobenzene	460-00-4	124	%	70-130	11.23.19 14.41		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS39**
Lab Sample Id: 644299-017

Matrix: Soil
Date Collected: 11.22.19 13.00

Date Received: 11.22.19 16.48
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3108511

Date Prep: 11.23.19 08.11

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	93.1	10.0	mg/kg	11.24.19 12.17		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3108572

Date Prep: 11.22.19 17.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.23.19 03.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.23.19 03.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.23.19 03.58	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.23.19 03.58	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.23.19 03.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	11.23.19 03.58	
o-Terphenyl	84-15-1	111	%	70-135	11.23.19 03.58	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS39**
 Lab Sample Id: 644299-017

Matrix: Soil
 Date Collected: 11.22.19 13.00

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.23.19 15.01	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.23.19 15.01	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.23.19 15.01	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.23.19 15.01	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.23.19 15.01	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.23.19 15.01	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.23.19 15.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	11.23.19 15.01		
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.23.19 15.01		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS40** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-018 Date Collected: 11.22.19 13.10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	331	101	mg/kg	11.25.19 08.38	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 04.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 04.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 04.17	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 04.17	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 04.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	11.23.19 04.17	
o-Terphenyl	84-15-1	112	%	70-135	11.23.19 04.17	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS40**
 Lab Sample Id: 644299-018

Matrix: Soil
 Date Collected: 11.22.19 13.10

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 15.20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 15.20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 15.20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 15.20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 15.20	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 15.20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 15.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.23.19 15.20		
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.23.19 15.20		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS41** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-019 Date Collected: 11.22.19 13.01 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	944	99.2	mg/kg	11.25.19 08.44	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.23.19 04.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.23.19 04.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.23.19 04.37	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.23.19 04.37	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.23.19 04.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.23.19 04.37	
o-Terphenyl	84-15-1	114	%	70-135	11.23.19 04.37	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS41**
 Lab Sample Id: 644299-019

Matrix: Soil
 Date Collected: 11.22.19 13.01

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 15.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 15.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 15.39	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.23.19 15.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 15.39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 15.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 15.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	86	%	70-130	11.23.19 15.39		
4-Bromofluorobenzene	460-00-4	102	%	70-130	11.23.19 15.39		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS42** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-020 Date Collected: 11.22.19 13.05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	663	99.8	mg/kg	11.25.19 08.50	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.00 Basis: Wet Weight
 Seq Number: 3108572

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.23.19 04.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.23.19 04.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.23.19 04.57	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.23.19 04.57	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.23.19 04.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	11.23.19 04.57	
o-Terphenyl	84-15-1	111	%	70-135	11.23.19 04.57	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS42**
 Lab Sample Id: 644299-020

Matrix: Soil
 Date Collected: 11.22.19 13.05

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108517

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.23.19 15.58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.23.19 15.58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.23.19 15.58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.23.19 15.58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.23.19 15.58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.23.19 15.58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.23.19 15.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.23.19 15.58		
4-Bromofluorobenzene	460-00-4	120	%	70-130	11.23.19 15.58		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS43** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-021 Date Collected: 11.22.19 13.08 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1200	100	mg/kg	11.25.19 08.55	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108589

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.23.19 09.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	61.9	50.3	mg/kg	11.23.19 09.12		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.23.19 09.12	U	1
Total GRO-DRO	PHC628	61.9	50.3	mg/kg	11.23.19 09.12		1
Total TPH	PHC635	61.9	50.3	mg/kg	11.23.19 09.12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	11.23.19 09.12	
o-Terphenyl	84-15-1	125	%	70-135	11.23.19 09.12	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS43**
 Lab Sample Id: 644299-021

Matrix: Soil
 Date Collected: 11.22.19 13.08

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108516

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 11.36	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 11.36	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 11.36	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 11.36	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 11.36	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 11.36	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 11.36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	125	%	70-130	11.23.19 11.36		
1,4-Difluorobenzene	540-36-3	94	%	70-130	11.23.19 11.36		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS44** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-022 Date Collected: 11.22.19 13.13 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	531	98.8	mg/kg	11.25.19 09.01	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108589

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.23.19 09.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.23.19 09.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.23.19 09.32	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.23.19 09.32	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.23.19 09.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.23.19 09.32	
o-Terphenyl	84-15-1	104	%	70-135	11.23.19 09.32	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS44**
 Lab Sample Id: 644299-022

Matrix: Soil
 Date Collected: 11.22.19 13.13

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108516

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.23.19 11.54	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.23.19 11.54	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.23.19 11.54	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.23.19 11.54	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.23.19 11.54	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.23.19 11.54	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.23.19 11.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	11.23.19 11.54		
1,4-Difluorobenzene	540-36-3	91	%	70-130	11.23.19 11.54		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS45** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-023 Date Collected: 11.22.19 13.17 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	319	98.8	mg/kg	11.25.19 09.07	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108589

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.23.19 09.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.23.19 09.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.23.19 09.51	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.23.19 09.51	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.23.19 09.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	11.23.19 09.51	
o-Terphenyl	84-15-1	108	%	70-135	11.23.19 09.51	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS45**
 Lab Sample Id: 644299-023

Matrix: Soil
 Date Collected: 11.22.19 13.17

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108516

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 12.11	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 12.11	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 12.11	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 12.11	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 12.11	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 12.11	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 12.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	88	%	70-130	11.23.19 12.11		
4-Bromofluorobenzene	460-00-4	130	%	70-130	11.23.19 12.11		



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS46** Matrix: Soil Date Received: 11.22.19 16.48
 Lab Sample Id: 644299-024 Date Collected: 11.22.19 13.21 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.23.19 08.11 Basis: Wet Weight
 Seq Number: 3108511

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	790	99.8	mg/kg	11.25.19 09.13	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.22.19 17.30 Basis: Wet Weight
 Seq Number: 3108589

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.23.19 10.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.23.19 10.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.23.19 10.11	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.23.19 10.11	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.23.19 10.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	11.23.19 10.11	
o-Terphenyl	84-15-1	109	%	70-135	11.23.19 10.11	



Certificate of Analytical Results 644299

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS46**
 Lab Sample Id: 644299-024

Matrix: Soil
 Date Collected: 11.22.19 13.21

Date Received: 11.22.19 16.48
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.22.19 18.11

Basis: Wet Weight

Seq Number: 3108516

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 12.28	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 12.28	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 12.28	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 12.28	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 12.28	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 12.28	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 12.28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	90	%	70-130	11.23.19 12.28		
4-Bromofluorobenzene	460-00-4	129	%	70-130	11.23.19 12.28		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3108510

MB Sample Id: 7691037-1-BLK

Matrix: Solid

LCS Sample Id: 7691037-1-BKS

Prep Method: E300P

Date Prep: 11.23.19

LCSD Sample Id: 7691037-1-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	257	103	90-110	0	20	mg/kg	11.23.19 12:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3108511

MB Sample Id: 7691038-1-BLK

Matrix: Solid

LCS Sample Id: 7691038-1-BKS

Prep Method: E300P

Date Prep: 11.23.19

LCSD Sample Id: 7691038-1-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	258	103	259	104	90-110	0	20	mg/kg	11.24.19 11:00	

Analytical Method: Chloride by EPA 300

Seq Number: 3108510

Parent Sample Id: 644205-006

Matrix: Soil

MS Sample Id: 644205-006 S

Prep Method: E300P

Date Prep: 11.23.19

MSD Sample Id: 644205-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	462	200	646	92	655	96	90-110	1	20	mg/kg	11.23.19 12:51	

Analytical Method: Chloride by EPA 300

Seq Number: 3108510

Parent Sample Id: 644205-016

Matrix: Soil

MS Sample Id: 644205-016 S

Prep Method: E300P

Date Prep: 11.23.19

MSD Sample Id: 644205-016 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	677	202	881	101	880	101	90-110	0	20	mg/kg	11.23.19 14:18	

Analytical Method: Chloride by EPA 300

Seq Number: 3108511

Parent Sample Id: 644299-005

Matrix: Soil

MS Sample Id: 644299-005 S

Prep Method: E300P

Date Prep: 11.23.19

MSD Sample Id: 644299-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	332	202	541	103	540	104	90-110	0	20	mg/kg	11.24.19 13:34	

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3108511

Parent Sample Id: 644299-015

Matrix: Soil

MS Sample Id: 644299-015 S

Prep Method: E300P

Date Prep: 11.23.19

MSD Sample Id: 644299-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	166	198	381	109	384	109	90-110	1	20	mg/kg	11.24.19 11:59	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108572

MB Sample Id: 7691097-1-BLK

Matrix: Solid

LCS Sample Id: 7691097-1-BKS

Prep Method: SW8015P

Date Prep: 11.22.19

LCSD Sample Id: 7691097-1-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	922	92	894	89	70-135	3	35	mg/kg	11.22.19 21:04	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	1060	106	70-135	1	35	mg/kg	11.22.19 21:04	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		122		117		70-135	%	11.22.19 21:04
o-Terphenyl	127		119		118		70-135	%	11.22.19 21:04

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108589

MB Sample Id: 7691104-1-BLK

Matrix: Solid

LCS Sample Id: 7691104-1-BKS

Prep Method: SW8015P

Date Prep: 11.22.19

LCSD Sample Id: 7691104-1-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	930	93	911	91	70-135	2	35	mg/kg	11.23.19 05:55	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1050	105	70-135	0	35	mg/kg	11.23.19 05:55	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	133		121		118		70-135	%	11.23.19 05:55
o-Terphenyl	128		117		118		70-135	%	11.23.19 05:55

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108572

Matrix: Solid

MB Sample Id: 7691097-1-BLK

Prep Method: SW8015P

Date Prep: 11.22.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.22.19 20:44	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108589

Matrix: Solid

Prep Method: SW8015P

Date Prep: 11.22.19

MB Sample Id: 7691104-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.23.19 05:36	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108572

Matrix: Soil

Prep Method: SW8015P

Date Prep: 11.22.19

Parent Sample Id: 644299-001

MS Sample Id: 644299-001 S

MSD Sample Id: 644299-001 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	970	97	900	90	70-135	7	35	mg/kg	11.22.19 22:04	
Diesel Range Organics (DRO)	<50.2	1000	1180	118	1080	108	70-135	9	35	mg/kg	11.22.19 22:04	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		129		70-135	%	11.22.19 22:04
o-Terphenyl	129		118		70-135	%	11.22.19 22:04

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108589

Matrix: Soil

Prep Method: SW8015P

Date Prep: 11.22.19

Parent Sample Id: 644205-011

MS Sample Id: 644205-011 S

MSD Sample Id: 644205-011 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	919	92	886	89	70-135	4	35	mg/kg	11.23.19 06:54	
Diesel Range Organics (DRO)	247	1000	1040	79	1020	77	70-135	2	35	mg/kg	11.23.19 06:54	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		114		70-135	%	11.23.19 06:54
o-Terphenyl	112		112		70-135	%	11.23.19 06:54

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108516

MB Sample Id: 7691043-1-BLK

Matrix: Solid

LCS Sample Id: 7691043-1-BKS

Prep Method: SW5030B

Date Prep: 11.22.19

LCSD Sample Id: 7691043-1-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	0.0960	96	0.0938	94	70-130	2	35	mg/kg	11.23.19 06:23	
Toluene	0.000810	0.100	0.0917	92	0.0894	89	70-130	3	35	mg/kg	11.23.19 06:23	
Ethylbenzene	<0.00200	0.100	0.100	100	0.0974	97	71-129	3	35	mg/kg	11.23.19 06:23	
m,p-Xylenes	<0.00400	0.200	0.199	100	0.193	97	70-135	3	35	mg/kg	11.23.19 06:23	
o-Xylene	<0.00200	0.100	0.0979	98	0.0968	97	71-133	1	35	mg/kg	11.23.19 06:23	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		92		93		70-130	%	11.23.19 06:23
4-Bromofluorobenzene	119		116		124		70-130	%	11.23.19 06:23

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108517

MB Sample Id: 7691044-1-BLK

Matrix: Solid

LCS Sample Id: 7691044-1-BKS

Prep Method: SW5030B

Date Prep: 11.22.19

LCSD Sample Id: 7691044-1-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	0.0853	85	0.0836	84	70-130	2	35	mg/kg	11.23.19 07:28	
Toluene	<0.00200	0.100	0.0866	87	0.0851	85	70-130	2	35	mg/kg	11.23.19 07:28	
Ethylbenzene	<0.00200	0.100	0.0853	85	0.0845	85	71-129	1	35	mg/kg	11.23.19 07:28	
m,p-Xylenes	<0.00400	0.200	0.181	91	0.180	90	70-135	1	35	mg/kg	11.23.19 07:28	
o-Xylene	<0.00200	0.100	0.0927	93	0.0918	92	71-133	1	35	mg/kg	11.23.19 07:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		104		70-130	%	11.23.19 07:28
4-Bromofluorobenzene	109		116		118		70-130	%	11.23.19 07:28

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108516

Parent Sample Id: 644205-008

Matrix: Soil

MS Sample Id: 644205-008 S

Prep Method: SW5030B

Date Prep: 11.22.19

MSD Sample Id: 644205-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0876	87	0.0827	82	70-130	6	35	mg/kg	11.23.19 06:58	
Toluene	0.000790	0.101	0.0811	80	0.0842	83	70-130	4	35	mg/kg	11.23.19 06:58	
Ethylbenzene	<0.00202	0.101	0.0849	84	0.0935	93	71-129	10	35	mg/kg	11.23.19 06:58	
m,p-Xylenes	<0.00101	0.202	0.162	80	0.179	89	70-135	10	35	mg/kg	11.23.19 06:58	
o-Xylene	<0.00202	0.101	0.0836	83	0.0901	89	71-133	7	35	mg/kg	11.23.19 06:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		87		70-130	%	11.23.19 06:58
4-Bromofluorobenzene	120		124		70-130	%	11.23.19 06:58

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108517

Parent Sample Id: 644299-001

Matrix: Soil

MS Sample Id: 644299-001 S

Prep Method: SW5030B

Date Prep: 11.22.19

MSD Sample Id: 644299-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0666	66	0.0675	68	70-130	1	35	mg/kg	11.23.19 08:06	X
Toluene	<0.00202	0.101	0.0648	64	0.0660	66	70-130	2	35	mg/kg	11.23.19 08:06	X
Ethylbenzene	<0.00202	0.101	0.0623	62	0.0634	63	71-129	2	35	mg/kg	11.23.19 08:06	X
m,p-Xylenes	<0.00403	0.202	0.130	64	0.132	66	70-135	2	35	mg/kg	11.23.19 08:06	X
o-Xylene	<0.00202	0.101	0.0651	64	0.0655	66	71-133	1	35	mg/kg	11.23.19 08:06	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		106		70-130	%	11.23.19 08:06
4-Bromofluorobenzene	122		121		70-130	%	11.23.19 08:06

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

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

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: 12121299

Isaiah, TX (201) 240-4200 Dallas, TX (974) 602-0300 San Antonio, TX (214) 605-1330
 Michael, TX (409) 644-6444 Ft. Worth, TX (817) 505-5441 Lubbock, TX (806) 764-1266
 Houston, TX (281) 212-7111 Phoenix, AZ (480) 355-8900 Atlanta, GA (770) 445-8800 Tampa, FL (813) 281-2121

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Page 1 of 1

Project Manager:		Dean Malar	Bill to: (if different)	Kyle Lohrke
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:	Chattahoochee, NM
Phone:		432.704.5178	E-mail:	ghost@delaney.com uncal@delaney.com

Work Order Comments Program: UST/ST ☐ HHP ☐ Brownfields ☐ RC ☐ Superfund State of Project: Reporting Level II ☐ Level III ☐ UST/UST ☐ HHP ☐ Level IV Deliverables: EEO ☐ ADAPT ☐ Other:				

Work Order Notes	

SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	8.0		Thermometer ID:	7-MK-007
Received Initials:	[Signature]	No		-0.2
Cooler Custody Seals:	Yes [X] No	N/A	Correction Factor:	
Sample Custody Seals:	Yes No	N/A	Total Containers:	160 of 21
Project Name: P.E.S. UPRIV CDP				
Project Number: CH291927A				
P.O. Number: H/N/M				
Sampler's Name: Robert Mufson				
Routine: ☐				
Flush: 21L				
Due Date:				
ANALYSIS REQUEST				
Number of Containers				
(EPA 8015)				
(EPA 0-8021)				
Side (EPA 300.0)				
TAT starts from day received by the lab, if received by 4:30pm.				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (%)	BTEX	Chloride	Sample Comments
FS28	5	11/20/19	1240	0.5'	1	X	X	X	
FS24			1243			X	X	X	
FS25			1244			X	X	X	
FS26			1205			X	X	X	
FS27			1208			X	X	X	
FS28			1215			X	X	X	
FS29			1217			X	X	X	
FS30			1221			X	X	X	
FS31			1226			X	X	X	
FS32			1230			X	X	X	

Total	200.7 / 6010	200.8 / 6020

Circle Method(s) and Motivation to be analyzed

BRCHA 13PPI 10KX11 M SO AS BA BE CD CR CO CU PB MH MO NI SE AG TI U
TCPL / SPLP 5010 BRCHA 50 AS BA BE CD CR CO CU PB MH MO NI SE AG TI U

Office. Signatures of this document and relinquishment of sample contributions a valid purchase order from client sample to Xerox, its affiliates and subcontractors. It assigns intellectual, terms and conditions Xerox 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 Xerox. A minimum charge of \$15.00 will be applied to each project and a charge of \$5.00 per scan sample according to Xerox, but not analyzed. These terms will be subject to terms previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		11/22/19			11/22/19 14:39



Chain of Custody

Work Order No: 1244229

Mission, TX (214) 240-4200 Dallas, TX (214) 802-8300 San Antonio, TX (210) 509-3334
Midland, TX (409) 794-5440 El Paso, TX (915) 660-3443 Lubbock, TX (806) 794-1296
Houston, TX (281) 382-7500 Phoenix, AZ (480) 335-0000 Atlanta, GA (770) 449-8000 Tampa, FL (813) 639-3200

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Page 2 of 3

Project Manager:	Dan Mott	Fill to: 8 address:	Kyle Librel
Company Name:	LT Environmental, Inc., Petroleum Office	Company Name:	XTC Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Cliffside, NM
Phone:	432.704.5178	Email:	info@xencolabs.com
Project Name:	Res Draw CDP	Turn Around:	
Project Number:	012214233	Routing:	☐
P.O. Number:	11/16/19	Route:	21/19
Sampler's Name:	Robert McAfee	Due Date:	

SAMPLE RECEIPT				ANALYSIS REQUEST				Work Order Notes	
Temperature (°C):	Temp Blank	Yes	No	Well cap:	Yes	No	TAT starts the day received by the lab. If received by 4:30pm	Sample Comments	
Revised Inlet:	Yes	No	Well cap:	Yes	No				
Cooper Country Shale	Yes	No	Well cap:	Yes	No				
Sample Country State:	Yes	No	Well cap:	Yes	No				
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers				
FS33	S	11/21/19	1434	0.5	1	X	X	X	
FS34						X	X	X	
FS35		11/21/19	1436			X	X	X	
FS36						X	X	X	
FS37						X	X	X	
FS38						X	X	X	
FS39						X	X	X	
FS40						X	X	X	
FS41						X	X	X	
FS42						X	X	X	

Total 200.7 / 6010 200.8 / 6010: 8RCRA 13CPM Texas T1 N Sb As Ba B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Sg Ag SiO2 Na Sr Ti Sn U V Zn
CMLP / SFLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 246.1 / 7470 / 7471 Hg

Signature of the recipient and acknowledgment of sample condition a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of sale. Signer will be liable only for the cost of samples and other 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 \$750.00 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.

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



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/22/2019 04:48:00 PM

Work Order #: 644299

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)?	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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 11/22/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/25/2019

Analytical Report 644351

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

26-NOV-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



26-NOV-19

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

Reference: XENCO Report No(s): **644351**
Ross Draw CDP
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 644351. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 644351 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in dark ink, appearing to read 'Jessica Kramer', is written over a horizontal line.

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

**Sample Cross Reference 644351****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS47	S	11-22-19 15:30	0.5 ft	644351-001
FS48	S	11-22-19 15:35	0.5 ft	644351-002
FS49	S	11-22-19 15:40	0.5 ft	644351-003
FS50	S	11-22-19 15:45	0.5 ft	644351-004
FS51	S	11-22-19 15:55	0.5 ft	644351-005
FS52	S	11-22-19 16:00	0.5 ft	644351-006
FS53	S	11-22-19 16:05	0.5 ft	644351-007
FS54	S	11-22-19 16:10	0.5 ft	644351-008
FS55	S	11-22-19 16:15	0.5 ft	644351-009
FS56	S	11-22-19 16:20	0.5 ft	644351-010
FS57	S	11-22-19 16:25	0.5 ft	644351-011
FS58	S	11-22-19 16:30	0.5 ft	644351-012
FS59	S	11-23-19 10:40	0.5 ft	644351-013
FS60	S	11-23-19 10:45	0.5 ft	644351-014
FS61	S	11-23-19 10:46	0.5 ft	644351-015
FS62	S	11-23-19 10:50	0.5 ft	644351-016
FS63	S	11-23-19 10:51	0.5 ft	644351-017
FS64	S	11-23-19 10:55	0.5 ft	644351-018
FS65	S	11-23-19 10:56	0.5 ft	644351-019



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 644351

Report Date: 26-NOV-19
Date Received: 11/25/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3108713 BTEX by EPA 8021B

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



Certificate of Analysis Summary 644351

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Nov-25-19 11:00 am

Report Date: 26-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644351-001	644351-002	644351-003	644351-004	644351-005	644351-006
	<i>Field Id:</i>	FS47	FS48	FS49	FS50	FS51	FS52
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-22-19 15:30	Nov-22-19 15:35	Nov-22-19 15:40	Nov-22-19 15:45	Nov-22-19 15:55	Nov-22-19 16:00
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11
	<i>Analyzed:</i>	Nov-25-19 19:32	Nov-25-19 19:51	Nov-25-19 20:10	Nov-25-19 20:30	Nov-25-19 20:49	Nov-25-19 21:08
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198
m,p-Xylenes		<0.00401 0.00401	<0.00399 0.00399	<0.00398 0.00398	<0.00397 0.00397	<0.00399 0.00399	<0.00397 0.00397
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00
	<i>Analyzed:</i>	Nov-25-19 14:04	Nov-25-19 14:21	Nov-25-19 14:27	Nov-25-19 14:33	Nov-25-19 14:39	Nov-25-19 14:57
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		179 10.0	31.7 9.98	51.5 9.94	259 9.90	178 9.88	142 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50
	<i>Analyzed:</i>	Nov-25-19 19:41	Nov-25-19 20:40	Nov-25-19 20:59	Nov-25-19 21:19	Nov-25-19 21:39	Nov-25-19 21:58
	<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	<50.2 50.2	<50.3 50.3	<49.8 49.8
Diesel Range Organics (DRO)		<49.8 49.8	1090 50.2	207 50.3	587 50.2	746 50.3	268 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.2 50.2	<50.3 50.3	102 50.2	558 50.3	60.6 49.8
Total GRO-DRO		<49.8 49.8	1090 50.2	207 50.3	587 50.2	746 50.3	268 49.8
Total TPH		<49.8 49.8	1090 50.2	207 50.3	689 50.2	1300 50.3	329 49.8

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 644351

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Nov-25-19 11:00 am

Report Date: 26-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644351-007	644351-008	644351-009	644351-010	644351-011	644351-012
	<i>Field Id:</i>	FS53	FS54	FS55	FS56	FS57	FS58
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-22-19 16:05	Nov-22-19 16:10	Nov-22-19 16:15	Nov-22-19 16:20	Nov-22-19 16:25	Nov-22-19 16:30
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11
	<i>Analyzed:</i>	Nov-25-19 21:27	Nov-25-19 21:46	Nov-25-19 22:05	Nov-25-19 22:24	Nov-25-19 23:28	Nov-25-19 23:47
	<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	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00399 0.00399	<0.00397 0.00397	<0.00400 0.00400	<0.00403 0.00403
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00
	<i>Analyzed:</i>	Nov-25-19 15:03	Nov-25-19 15:08	Nov-25-19 15:14	Nov-25-19 15:20	Nov-25-19 15:26	Nov-25-19 15:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		70.1 9.94	122 9.96	112 9.98	18.1 10.0	30.8 10.0	49.2 9.92
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50
	<i>Analyzed:</i>	Nov-25-19 22:18	Nov-25-19 22:38	Nov-25-19 22:57	Nov-25-19 23:17	Nov-25-19 23:57	Nov-26-19 00:17
	<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)		<49.9 49.9	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.2 50.2
Diesel Range Organics (DRO)		<49.9 49.9	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.2 50.2
Total GRO-DRO		<49.9 49.9	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.2 50.2
Total TPH		<49.9 49.9	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9	<50.2 50.2

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644351



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Nov-25-19 11:00 am

Report Date: 26-NOV-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644351-013	644351-014	644351-015	644351-016	644351-017	644351-018
	<i>Field Id:</i>	FS59	FS60	FS61	FS62	FS63	FS64
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-23-19 10:40	Nov-23-19 10:45	Nov-23-19 10:46	Nov-23-19 10:50	Nov-23-19 10:51	Nov-23-19 10:55
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11	Nov-25-19 12:11
	<i>Analyzed:</i>	Nov-26-19 00:06	Nov-26-19 00:25	Nov-26-19 00:44	Nov-26-19 01:03	Nov-26-19 01:23	Nov-26-19 01:42
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Toluene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
m,p-Xylenes		<0.00401 0.00401	<0.00403 0.00403	<0.00401 0.00401	<0.00402 0.00402	<0.00402 0.00402	<0.00403 0.00403
o-Xylene		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Total BTEX		<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00	Nov-25-19 12:00
	<i>Analyzed:</i>	Nov-25-19 15:50	Nov-25-19 16:07	Nov-25-19 16:13	Nov-25-19 16:19	Nov-25-19 16:25	Nov-25-19 16:31
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		21.3 9.90	64.1 9.90	70.7 9.96	84.3 9.98	22.3 9.96	51.7 9.94
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50	Nov-25-19 13:50
	<i>Analyzed:</i>	Nov-26-19 00:36	Nov-26-19 00:56	Nov-26-19 01:16	Nov-26-19 01:36	Nov-26-19 01:56	Nov-26-19 02:15
	<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)		<49.9 49.9	<50.3 50.3	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.3 50.3
Diesel Range Organics (DRO)		<49.9 49.9	<50.3 50.3	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.3 50.3	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.3 50.3
Total GRO-DRO		<49.9 49.9	<50.3 50.3	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.3 50.3
Total TPH		<49.9 49.9	<50.3 50.3	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.3 50.3

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644351



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Nov-25-19 11:00 am

Report Date: 26-NOV-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	644351-019					
	Field Id:	FS65					
	Depth:	0.5- ft					
	Matrix:	SOIL					
	Sampled:	Nov-23-19 10:56					
BTEX by EPA 8021B	Extracted:	Nov-25-19 12:11					
	Analyzed:	Nov-26-19 02:01					
	Units/RL:	mg/kg RL					
	Benzene	<0.00202 0.00202					
	Toluene	<0.00202 0.00202					
	Ethylbenzene	<0.00202 0.00202					
	m,p-Xylenes	<0.00403 0.00403					
	o-Xylene	<0.00202 0.00202					
	Total Xylenes	<0.00202 0.00202					
	Total BTEX	<0.00202 0.00202					
Chloride by EPA 300	Extracted:	Nov-25-19 12:00					
	Analyzed:	Nov-25-19 16:37					
	Units/RL:	mg/kg RL					
	Chloride	87.1 9.90					
TPH by SW8015 Mod	Extracted:	Nov-25-19 13:50					
	Analyzed:	Nov-26-19 02:35					
	Units/RL:	mg/kg RL					
	Gasoline Range Hydrocarbons (GRO)	<50.3 50.3					
	Diesel Range Organics (DRO)	<50.3 50.3					
	Motor Oil Range Hydrocarbons (MRO)	<50.3 50.3					
	Total GRO-DRO	<50.3 50.3					
	Total TPH	<50.3 50.3					

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS47** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-001 Date Collected: 11.22.19 15.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	179	10.0	mg/kg	11.25.19 14.04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.25.19 19.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.25.19 19.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.25.19 19.41	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.25.19 19.41	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.25.19 19.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.25.19 19.41	
o-Terphenyl	84-15-1	107	%	70-135	11.25.19 19.41	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS47**
 Lab Sample Id: 644351-001

Matrix: Soil
 Date Collected: 11.22.19 15.30

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.25.19 19.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.25.19 19.32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.25.19 19.32	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.25.19 19.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.25.19 19.32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.25.19 19.32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.25.19 19.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.25.19 19.32		
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.25.19 19.32		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS48** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-002 Date Collected: 11.22.19 15.35 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.7	9.98	mg/kg	11.25.19 14.21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.25.19 20.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	1090	50.2	mg/kg	11.25.19 20.40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.25.19 20.40	U	1
Total GRO-DRO	PHC628	1090	50.2	mg/kg	11.25.19 20.40		1
Total TPH	PHC635	1090	50.2	mg/kg	11.25.19 20.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	11.25.19 20.40	
o-Terphenyl	84-15-1	114	%	70-135	11.25.19 20.40	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS48**
 Lab Sample Id: 644351-002

Matrix: Soil
 Date Collected: 11.22.19 15.35

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.25.19 19.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.25.19 19.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.25.19 19.51	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.25.19 19.51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.25.19 19.51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.25.19 19.51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.25.19 19.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	92	%	70-130	11.25.19 19.51		
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.25.19 19.51		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS49** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-003 Date Collected: 11.22.19 15.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	51.5	9.94	mg/kg	11.25.19 14.27		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.25.19 20.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	207	50.3	mg/kg	11.25.19 20.59		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.25.19 20.59	U	1
Total GRO-DRO	PHC628	207	50.3	mg/kg	11.25.19 20.59		1
Total TPH	PHC635	207	50.3	mg/kg	11.25.19 20.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.25.19 20.59	
o-Terphenyl	84-15-1	109	%	70-135	11.25.19 20.59	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS49**
 Lab Sample Id: 644351-003

Matrix: Soil
 Date Collected: 11.22.19 15.40

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.25.19 20.10	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.25.19 20.10	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.25.19 20.10	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.25.19 20.10	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.25.19 20.10	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.25.19 20.10	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.25.19 20.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.25.19 20.10		
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.25.19 20.10		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS50** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-004 Date Collected: 11.22.19 15.45 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	259	9.90	mg/kg	11.25.19 14.33		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.25.19 21.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	587	50.2	mg/kg	11.25.19 21.19		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	102	50.2	mg/kg	11.25.19 21.19		1
Total GRO-DRO	PHC628	587	50.2	mg/kg	11.25.19 21.19		1
Total TPH	PHC635	689	50.2	mg/kg	11.25.19 21.19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.25.19 21.19	
o-Terphenyl	84-15-1	110	%	70-135	11.25.19 21.19	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS50**
Lab Sample Id: 644351-004

Matrix: Soil
Date Collected: 11.22.19 15.45

Date Received: 11.25.19 11.00
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.25.19 20.30	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.25.19 20.30	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.25.19 20.30	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.25.19 20.30	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.25.19 20.30	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.25.19 20.30	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.25.19 20.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.25.19 20.30		
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.25.19 20.30		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS51** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-005 Date Collected: 11.22.19 15.55 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	178	9.88	mg/kg	11.25.19 14.39		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.25.19 21.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	746	50.3	mg/kg	11.25.19 21.39		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	558	50.3	mg/kg	11.25.19 21.39		1
Total GRO-DRO	PHC628	746	50.3	mg/kg	11.25.19 21.39		1
Total TPH	PHC635	1300	50.3	mg/kg	11.25.19 21.39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.25.19 21.39	
o-Terphenyl	84-15-1	108	%	70-135	11.25.19 21.39	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS51**
 Lab Sample Id: 644351-005

Matrix: Soil
 Date Collected: 11.22.19 15.55

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.25.19 20.49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.25.19 20.49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.25.19 20.49	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.25.19 20.49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.25.19 20.49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.25.19 20.49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.25.19 20.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.25.19 20.49		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.25.19 20.49		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS52 Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-006 Date Collected: 11.22.19 16.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	142	9.98	mg/kg	11.25.19 14.57		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.25.19 21.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	268	49.8	mg/kg	11.25.19 21.58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	60.6	49.8	mg/kg	11.25.19 21.58		1
Total GRO-DRO	PHC628	268	49.8	mg/kg	11.25.19 21.58		1
Total TPH	PHC635	329	49.8	mg/kg	11.25.19 21.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.25.19 21.58	
o-Terphenyl	84-15-1	108	%	70-135	11.25.19 21.58	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS52
Lab Sample Id: 644351-006

Matrix: Soil
Date Collected: 11.22.19 16.00

Date Received: 11.25.19 11.00
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.25.19 21.08	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.25.19 21.08	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.25.19 21.08	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.25.19 21.08	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.25.19 21.08	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.25.19 21.08	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.25.19 21.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	11.25.19 21.08		
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.25.19 21.08		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS53** Matrix: **Soil** Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-007 Date Collected: 11.22.19 16.05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.25.19 12.00 Basis: **Wet Weight**
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	70.1	9.94	mg/kg	11.25.19 15.03		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.25.19 13.50 Basis: **Wet Weight**
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.25.19 22.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.25.19 22.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.25.19 22.18	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.25.19 22.18	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.25.19 22.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.25.19 22.18	
o-Terphenyl	84-15-1	105	%	70-135	11.25.19 22.18	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS53**
 Lab Sample Id: 644351-007

Matrix: Soil
 Date Collected: 11.22.19 16.05

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.25.19 21.27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.25.19 21.27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.25.19 21.27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.25.19 21.27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.25.19 21.27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.25.19 21.27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.25.19 21.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.25.19 21.27		
4-Bromofluorobenzene	460-00-4	128	%	70-130	11.25.19 21.27		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS54** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-008 Date Collected: 11.22.19 16.10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	122	9.96	mg/kg	11.25.19 15.08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.25.19 22.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.25.19 22.38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.25.19 22.38	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.25.19 22.38	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.25.19 22.38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.25.19 22.38	
o-Terphenyl	84-15-1	108	%	70-135	11.25.19 22.38	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS54**
 Lab Sample Id: 644351-008

Matrix: Soil
 Date Collected: 11.22.19 16.10

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.25.19 21.46	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.25.19 21.46	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.25.19 21.46	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.25.19 21.46	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.25.19 21.46	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.25.19 21.46	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.25.19 21.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	90	%	70-130	11.25.19 21.46		
1,4-Difluorobenzene	540-36-3	82	%	70-130	11.25.19 21.46		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS55 Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-009 Date Collected: 11.22.19 16.15 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	112	9.98	mg/kg	11.25.19 15.14		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.25.19 22.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.25.19 22.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.25.19 22.57	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.25.19 22.57	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.25.19 22.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.25.19 22.57	
o-Terphenyl	84-15-1	103	%	70-135	11.25.19 22.57	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS55
Lab Sample Id: 644351-009

Matrix: Soil
Date Collected: 11.22.19 16.15

Date Received: 11.25.19 11.00
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.25.19 22.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.25.19 22.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.25.19 22.05	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.25.19 22.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.25.19 22.05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.25.19 22.05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.25.19 22.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	11.25.19 22.05		
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.25.19 22.05		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS56** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-010 Date Collected: 11.22.19 16.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.1	10.0	mg/kg	11.25.19 15.20		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.25.19 23.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.25.19 23.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.25.19 23.17	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.25.19 23.17	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.25.19 23.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.25.19 23.17	
o-Terphenyl	84-15-1	108	%	70-135	11.25.19 23.17	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS56**
Lab Sample Id: 644351-010

Matrix: Soil
Date Collected: 11.22.19 16.20

Date Received: 11.25.19 11.00
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.25.19 22.24	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.25.19 22.24	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.25.19 22.24	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.25.19 22.24	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.25.19 22.24	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.25.19 22.24	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.25.19 22.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.25.19 22.24		
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.25.19 22.24		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS57 Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-011 Date Collected: 11.22.19 16.25 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	30.8	10.0	mg/kg	11.25.19 15.26		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.25.19 23.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.25.19 23.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.25.19 23.57	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.25.19 23.57	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.25.19 23.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.25.19 23.57	
o-Terphenyl	84-15-1	107	%	70-135	11.25.19 23.57	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: FS57
Lab Sample Id: 644351-011

Matrix: Soil
Date Collected: 11.22.19 16.25

Date Received: 11.25.19 11.00
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.25.19 23.28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.25.19 23.28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.25.19 23.28	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.25.19 23.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.25.19 23.28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.25.19 23.28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.25.19 23.28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	83	%	70-130	11.25.19 23.28		
4-Bromofluorobenzene	460-00-4	104	%	70-130	11.25.19 23.28		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS58** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-012 Date Collected: 11.22.19 16.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	49.2	9.92	mg/kg	11.25.19 15.44		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.26.19 00.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.26.19 00.17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.26.19 00.17	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.26.19 00.17	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.26.19 00.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.26.19 00.17	
o-Terphenyl	84-15-1	108	%	70-135	11.26.19 00.17	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS58**
 Lab Sample Id: 644351-012

Matrix: Soil
 Date Collected: 11.22.19 16.30

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.25.19 23.47	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.25.19 23.47	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.25.19 23.47	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.25.19 23.47	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.25.19 23.47	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.25.19 23.47	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.25.19 23.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	126	%	70-130	11.25.19 23.47		
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.25.19 23.47		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS59** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-013 Date Collected: 11.23.19 10.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.3	9.90	mg/kg	11.25.19 15.50		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.26.19 00.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.26.19 00.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.26.19 00.36	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.26.19 00.36	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.26.19 00.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	11.26.19 00.36	
o-Terphenyl	84-15-1	106	%	70-135	11.26.19 00.36	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS59**
 Lab Sample Id: 644351-013

Matrix: Soil
 Date Collected: 11.23.19 10.40

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.26.19 00.06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.26.19 00.06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.26.19 00.06	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.26.19 00.06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.26.19 00.06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.26.19 00.06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.26.19 00.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	86	%	70-130	11.26.19 00.06		
1,4-Difluorobenzene	540-36-3	81	%	70-130	11.26.19 00.06		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS60** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-014 Date Collected: 11.23.19 10.45 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	64.1	9.90	mg/kg	11.25.19 16.07		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.26.19 00.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.26.19 00.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.26.19 00.56	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.26.19 00.56	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.26.19 00.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	11.26.19 00.56	
o-Terphenyl	84-15-1	102	%	70-135	11.26.19 00.56	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS60**
 Lab Sample Id: 644351-014

Matrix: Soil
 Date Collected: 11.23.19 10.45

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.26.19 00.25	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.26.19 00.25	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.26.19 00.25	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.26.19 00.25	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.26.19 00.25	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.26.19 00.25	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.26.19 00.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	87	%	70-130	11.26.19 00.25		
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.26.19 00.25		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS61** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-015 Date Collected: 11.23.19 10.46 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	70.7	9.96	mg/kg	11.25.19 16.13		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.26.19 01.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.26.19 01.16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.26.19 01.16	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.26.19 01.16	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.26.19 01.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	11.26.19 01.16	
o-Terphenyl	84-15-1	103	%	70-135	11.26.19 01.16	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS61**
 Lab Sample Id: 644351-015

Matrix: Soil
 Date Collected: 11.23.19 10.46

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.26.19 00.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.26.19 00.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.26.19 00.44	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.26.19 00.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.26.19 00.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.26.19 00.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.26.19 00.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.26.19 00.44		
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.26.19 00.44		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS62** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-016 Date Collected: 11.23.19 10.50 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	84.3	9.98	mg/kg	11.25.19 16.19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.26.19 01.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.26.19 01.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.26.19 01.36	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.26.19 01.36	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.26.19 01.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.26.19 01.36	
o-Terphenyl	84-15-1	107	%	70-135	11.26.19 01.36	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS62**
Lab Sample Id: 644351-016

Matrix: Soil
Date Collected: 11.23.19 10.50

Date Received: 11.25.19 11.00
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.26.19 01.03	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.26.19 01.03	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.26.19 01.03	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.26.19 01.03	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.26.19 01.03	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.26.19 01.03	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.26.19 01.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.26.19 01.03		
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.26.19 01.03		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS63** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-017 Date Collected: 11.23.19 10.51 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.3	9.96	mg/kg	11.25.19 16.25		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.26.19 01.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.26.19 01.56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.26.19 01.56	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.26.19 01.56	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.26.19 01.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	11.26.19 01.56	
o-Terphenyl	84-15-1	98	%	70-135	11.26.19 01.56	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS63**
 Lab Sample Id: 644351-017

Matrix: Soil
 Date Collected: 11.23.19 10.51

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.26.19 01.23	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.26.19 01.23	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.26.19 01.23	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.26.19 01.23	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.26.19 01.23	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.26.19 01.23	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.26.19 01.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	11.26.19 01.23		
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.26.19 01.23		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS64**
Lab Sample Id: 644351-018

Matrix: Soil
Date Collected: 11.23.19 10.55

Date Received: 11.25.19 11.00
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3108695

Date Prep: 11.25.19 12.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	51.7	9.94	mg/kg	11.25.19 16.31		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3108717

Date Prep: 11.25.19 13.50

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.26.19 02.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.26.19 02.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.26.19 02.15	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.26.19 02.15	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.26.19 02.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.26.19 02.15	
o-Terphenyl	84-15-1	105	%	70-135	11.26.19 02.15	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS64**
 Lab Sample Id: 644351-018

Matrix: Soil
 Date Collected: 11.23.19 10.55

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.26.19 01.42	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.26.19 01.42	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.26.19 01.42	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.26.19 01.42	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.26.19 01.42	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.26.19 01.42	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.26.19 01.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	11.26.19 01.42		
1,4-Difluorobenzene	540-36-3	80	%	70-130	11.26.19 01.42		



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS65** Matrix: Soil Date Received: 11.25.19 11.00
 Lab Sample Id: 644351-019 Date Collected: 11.23.19 10.56 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.25.19 12.00 Basis: Wet Weight
 Seq Number: 3108695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	87.1	9.90	mg/kg	11.25.19 16.37		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.25.19 13.50 Basis: Wet Weight
 Seq Number: 3108717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.26.19 02.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.26.19 02.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.26.19 02.35	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.26.19 02.35	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.26.19 02.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	11.26.19 02.35	
o-Terphenyl	84-15-1	102	%	70-135	11.26.19 02.35	



Certificate of Analytical Results 644351

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS65**
 Lab Sample Id: 644351-019

Matrix: Soil
 Date Collected: 11.23.19 10.56

Date Received: 11.25.19 11.00
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.25.19 12.11

Basis: Wet Weight

Seq Number: 3108713

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.26.19 02.01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.26.19 02.01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.26.19 02.01	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.26.19 02.01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.26.19 02.01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.26.19 02.01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.26.19 02.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.26.19 02.01		
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.26.19 02.01		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3108695

MB Sample Id: 7691115-1-BLK

Matrix: Solid

LCS Sample Id: 7691115-1-BKS

Prep Method: E300P

Date Prep: 11.25.19

LCSD Sample Id: 7691115-1-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	255	102	257	103	90-110	1	20	mg/kg	11.25.19 13:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3108695

Parent Sample Id: 644351-001

Matrix: Soil

MS Sample Id: 644351-001 S

Prep Method: E300P

Date Prep: 11.25.19

MSD Sample Id: 644351-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	179	201	393	106	396	107	90-110	1	20	mg/kg	11.25.19 14:10	

Analytical Method: Chloride by EPA 300

Seq Number: 3108695

Parent Sample Id: 644351-011

Matrix: Soil

MS Sample Id: 644351-011 S

Prep Method: E300P

Date Prep: 11.25.19

MSD Sample Id: 644351-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	30.8	200	241	105	252	110	90-110	4	20	mg/kg	11.25.19 15:32	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108717

MB Sample Id: 7691195-1-BLK

Matrix: Solid

LCS Sample Id: 7691195-1-BKS

Prep Method: SW8015P

Date Prep: 11.25.19

LCSD Sample Id: 7691195-1-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	915	92	890	89	70-135	3	35	mg/kg	11.25.19 19:01	
Diesel Range Organics (DRO)	<50.0	1000	1120	112	1070	107	70-135	5	35	mg/kg	11.25.19 19:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		123		131		70-135	%	11.25.19 19:01
o-Terphenyl	128		124		119		70-135	%	11.25.19 19:01

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108717

Matrix: Solid

MB Sample Id: 7691195-1-BLK

Prep Method: SW8015P

Date Prep: 11.25.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.25.19 18:41	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3108717

Parent Sample Id: 644351-001

Matrix: Soil

MS Sample Id: 644351-001 S

Prep Method: SW8015P

Date Prep: 11.25.19

MSD Sample Id: 644351-001 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	845	85	833	83	70-135	1	35	mg/kg	11.25.19 20:00	
Diesel Range Organics (DRO)	<50.2	1000	1030	103	1000	100	70-135	3	35	mg/kg	11.25.19 20:00	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		128		70-135	%	11.25.19 20:00
o-Terphenyl	113		118		70-135	%	11.25.19 20:00

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108713

MB Sample Id: 7691118-1-BLK

Matrix: Solid

LCS Sample Id: 7691118-1-BKS

Prep Method: SW5030B

Date Prep: 11.25.19

LCSD Sample Id: 7691118-1-BSO

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	0.0949	95	0.0943	94	70-130	1	35	mg/kg	11.26.19 02:20	
Toluene	<0.00200	0.100	0.0954	95	0.0956	96	70-130	0	35	mg/kg	11.26.19 02:20	
Ethylbenzene	<0.00200	0.100	0.0937	94	0.0938	94	71-129	0	35	mg/kg	11.26.19 02:20	
m,p-Xylenes	<0.00400	0.200	0.198	99	0.199	100	70-135	1	35	mg/kg	11.26.19 02:20	
o-Xylene	<0.00200	0.100	0.101	101	0.102	102	71-133	1	35	mg/kg	11.26.19 02:20	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		104		105		70-130	%	11.26.19 02:20
4-Bromofluorobenzene	107		116		119		70-130	%	11.26.19 02:20

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108713

Parent Sample Id: 644351-001

Matrix: Soil

MS Sample Id: 644351-001 S

Prep Method: SW5030B

Date Prep: 11.25.19

MSD Sample Id: 644351-001 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	0.100	0.0740	74	0.0871	87	70-130	16	35	mg/kg	11.25.19 18:28	
Toluene	<0.00201	0.100	0.0798	80	0.0894	89	70-130	11	35	mg/kg	11.25.19 18:28	
Ethylbenzene	<0.00201	0.100	0.0808	81	0.0885	89	71-129	9	35	mg/kg	11.25.19 18:28	
m,p-Xylenes	<0.00402	0.201	0.174	87	0.188	94	70-135	8	35	mg/kg	11.25.19 18:28	
o-Xylene	<0.00201	0.100	0.0892	89	0.0959	96	71-133	7	35	mg/kg	11.25.19 18:28	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		105		70-130	%	11.25.19 18:28
4-Bromofluorobenzene	124		123		70-130	%	11.25.19 18:28

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

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

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:

1044251

Newark, TX (281) 340-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3304
Midland, TX (432) 704-5440 El Paso, TX (915) 805-3440 Lubbock, TX (806) 794-1284
Houston, TX (281) 352-2553 Phoenix, AZ (480) 955-0000 Atlanta, GA (770) 448-8800 Tampa, FL (813) 529-3000

www.xenco.com

Page 1 of 2

Project Manager:	Don Mohr	Bill to (Company):	Kyle Litrell
Company Name:	LT Environmental, Inc. Permit office	Company Name:	XTC-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Midland, TX 79705
Phone:	432 704 5178	Email:	donmohr@xenco.com
Project Name:	East Draw CDP	Turn Around:	
Project Number:	012919237	Routing:	☐
P.O. Number:		Rush:	2 YAR
Sample Name:	Robert McAlpine	Due Date:	

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	0.8	Thermometer ID:	T-2011-007				
Received Initial:	Yes	No	Correction Factor:				
Container Custody Seal:	Yes	No	Total Containers:				
Sample Custody Seal:	Yes	No	19				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8-8021)	Chloride (EPA 800.0)	ANALYSIS REQUEST																					Work Order Notes
F542	S	11/24/19	1530	0.5	1	X	X	X																						
F548			1535			X	X	X																						
F549			1540			X	X	X																						
F580			1545			X	X	X																						
F581			1555			X	X	X																						
F552			1600			X	X	X																						
F553			1605			X	X	X																						
F554			1610			X	X	X																						
F555			1615			X	X	X																						
F556			1620			X	X	X																						

Total 200.7 / 6010 200.6 / 6020: BRCPA 13PPM Texaco 11 A Sb Ae Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SnO2 Na SP TI Sn U V Zn

Circle Method(s) and Material(s) to be analyzed: TCIP / SPLP 6010 BRCPA Sb Ae Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag TI U

Signature of this structure and acknowledgment of sample constitutes a valid purchase order from client company to Xenco, for analysis and subordination. It obligates standard terms and conditions of service. Xenco will be held responsible for the cost of samples and shall not assume any responsibility for any losses or damages 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 \$1.00 per each sample submitted to Xenco, but not analyzed. These terms will be subject to change without notice.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Don Mohr	Don Mohr	11/25/19 11:00			



Houston, TX (281) 240-4200 Dallas, TX (214) 302-0200 San Antonio, TX (210) 800-3334
Midland, TX (409) 704-5440 El Paso, TX (915) 525-3445 Lubbock, TX (806) 784-1200
Hidalgo, NM (505) 302-7550 Phoenix, AZ (480) 355-0800 Atlanta, GA (770) 418-8000 Tampa, FL (813) 528-3700

Chain of Custody

Work Order No: 044351

Project Manager:	Dan Moe	Bill to (if different):	Kyle Little
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO-Energy
Address:	3300 North A Street	Address:	
City, State Zip:	Midland, TX 79705	City, State Zip:	Carlsbad, NM
Phone:	432-704-5178	Email:	francesca@xtoenergy.com mikel@xtoenergy.com

Program: USY/PST	☐ PRP	☐ Brownfields	☐ RC	☐ Superfund	☐
State of Project:					
Reporting Level: I	☐ Level II	☐ Level III	☐ Level IV	☐ Level V	☐
Deliverables:	☐ ERO	☐ ADAPT	☐ Other		

ANALYSIS REQUEST

Work Order Notes

Project Name:	Kes Dam CDP	Turn Around	
Project Number:	012919273	Routine ☐	
P.O. Number:		Rush: 24hr	
Sample Name:	Robert Muehle	Due Date:	

Temperature (°C):	0.6	Temp Blank:	Yes No	Well log:	Yes No
Received Inlet:	Yes No	Correction Factor:			
Conductivity Span:	Yes No	Total Contaminants:			
Sample Custody Seal:	Yes No				

Number of Containers	
EPA 8016)	
EPA 80621)	
Chloride (EPA 300.0)	



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/25/2019 11:00:00 AM

Work Order #: 644351

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)?	.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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 11/25/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/25/2019

Analytical Report 644613

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

02-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



02-DEC-19

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

Reference: XENCO Report No(s): **644613**
Ross Draw CDP
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 644613. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 644613 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

**Sample Cross Reference 644613****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS95	S	11-26-19 11:10	0.5 ft	644613-001
FS96	S	11-26-19 11:05	0.5 ft	644613-002
FS97	S	11-26-19 11:15	0.5 ft	644613-003
FS98	S	11-26-19 11:20	0.5 ft	644613-004
FS99	S	11-26-19 11:25	0.5 ft	644613-005
FS100	S	11-26-19 11:30	0.5 ft	644613-006
FS101	S	11-26-19 11:40	0.5 ft	644613-007
FS102	S	11-26-19 12:00	0.5 ft	644613-008



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 644613

Report Date: 02-DEC-19
Date Received: 11/27/2019

Sample receipt non conformance and comments:

None

Sample receipt non conformance and comments per sample:

None

Analytical non conformance and comments:

Batch: LBA-3109035 BTEX by EPA 8021B

Lab Sample ID 644613-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 644613-001, -002, -003, -004, -005, -006, -007, -008.

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

Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.

Samples in the analytical batch are: 644613-001, -002, -003, -004, -005, -006, -007, -008

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

Certificate of Analysis Summary 644613



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Nov-27-19 09:50 am

Report Date: 02-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	644613-001	644613-002	644613-003	644613-004	644613-005	644613-006
	Field Id:	FS95	FS96	FS97	FS98	FS99	FS100
	Depth:	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Nov-26-19 11:10	Nov-26-19 11:05	Nov-26-19 11:15	Nov-26-19 11:20	Nov-26-19 11:25	Nov-26-19 11:30
BTEX by EPA 8021B	Extracted:	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11
	Analyzed:	Nov-28-19 09:15	Nov-28-19 09:34	Nov-28-19 09:53	Nov-28-19 10:12	Nov-28-19 10:32	Nov-28-19 10:51
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00403 0.00403	<0.00403 0.00403	<0.00399 0.00399	<0.00398 0.00398	<0.00399 0.00399	<0.00398 0.00398
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	Extracted:	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11
	Analyzed:	Nov-27-19 19:04	Nov-27-19 19:10	Nov-27-19 19:16	Nov-27-19 19:22	Nov-27-19 19:28	Nov-27-19 19:46
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		19.7 9.98	21.1 10.1	60.2 10.1	24.6 10.0	31.2 9.94	83.1 10.1
TPH by SW8015 Mod	Extracted:	Nov-27-19 13:00	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30
	Analyzed:	Nov-27-19 19:03	Nov-27-19 20:03	Nov-27-19 20:23	Nov-27-19 20:43	Nov-27-19 20:43	Nov-27-19 21:02
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1	<50.2 50.2	<49.9 49.9
Diesel Range Organics (DRO)		<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1	<50.2 50.2	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1	<50.2 50.2	<49.9 49.9
Total GRO-DRO		<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1	<50.2 50.2	<49.9 49.9
Total TPH		<49.8 49.8	<50.2 50.2	<50.3 50.3	<50.1 50.1	<50.2 50.2	<49.9 49.9

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Version: 1.9%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644613



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Nov-27-19 09:50 am

Report Date: 02-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	644613-007	644613-008				
	Field Id:	FS101	FS102				
	Depth:	0.5- ft	0.5- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Nov-26-19 11:40	Nov-26-19 12:00				
BTEX by EPA 8021B	Extracted:	Nov-27-19 16:11	Nov-27-19 16:11				
	Analyzed:	Nov-28-19 11:10	Nov-28-19 11:29				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00198 0.00198	<0.00200 0.00200				
Toluene		<0.00198 0.00198	<0.00200 0.00200				
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200				
m,p-Xylenes		<0.00397 0.00397	<0.00400 0.00400				
o-Xylene		<0.00198 0.00198	<0.00200 0.00200				
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200				
Total BTEX		<0.00198 0.00198	<0.00200 0.00200				
Chloride by EPA 300	Extracted:	Nov-27-19 13:11	Nov-27-19 13:11				
	Analyzed:	Nov-27-19 19:52	Nov-27-19 19:58				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		39.6 10.0	28.6 10.1				
TPH by SW8015 Mod	Extracted:	Nov-27-19 15:30	Nov-27-19 15:30				
	Analyzed:	Nov-27-19 21:02	Nov-27-19 21:22				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3	<50.2 50.2				
Diesel Range Organics (DRO)		<50.3 50.3	<50.2 50.2				
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<50.2 50.2				
Total GRO-DRO		<50.3 50.3	<50.2 50.2				
Total TPH		<50.3 50.3	<50.2 50.2				

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 XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
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Version: 1.0%

Jessica Kramer
Project Assistant



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS95** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-001 Date Collected: 11.26.19 11.10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19.7	9.98	mg/kg	11.27.19 19.04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 13.00 Basis: Wet Weight
 Seq Number: 3109042

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.27.19 19.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.27.19 19.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.27.19 19.03	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.27.19 19.03	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.27.19 19.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	11.27.19 19.03	
o-Terphenyl	84-15-1	130	%	70-135	11.27.19 19.03	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS95**
 Lab Sample Id: 644613-001

Matrix: Soil
 Date Collected: 11.26.19 11.10

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 09.15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 09.15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 09.15	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.28.19 09.15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 09.15	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 09.15	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 09.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	11.28.19 09.15		
1,4-Difluorobenzene	540-36-3	82	%	70-130	11.28.19 09.15		



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS96** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-002 Date Collected: 11.26.19 11.05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.1	10.1	mg/kg	11.27.19 19.10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.27.19 20.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.27.19 20.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.27.19 20.03	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.27.19 20.03	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.27.19 20.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	129	%	70-135	11.27.19 20.03	
o-Terphenyl	84-15-1	129	%	70-135	11.27.19 20.03	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS96**
 Lab Sample Id: 644613-002

Matrix: Soil
 Date Collected: 11.26.19 11.05

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 09.34	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 09.34	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 09.34	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.28.19 09.34	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 09.34	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 09.34	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 09.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	11.28.19 09.34		
1,4-Difluorobenzene	540-36-3	94	%	70-130	11.28.19 09.34		



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS97** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-003 Date Collected: 11.26.19 11.15 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	60.2	10.1	mg/kg	11.27.19 19.16		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.27.19 20.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.27.19 20.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.27.19 20.23	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.27.19 20.23	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.27.19 20.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	11.27.19 20.23	
o-Terphenyl	84-15-1	116	%	70-135	11.27.19 20.23	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS97**
 Lab Sample Id: 644613-003

Matrix: Soil
 Date Collected: 11.26.19 11.15

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 09.53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 09.53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 09.53	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.28.19 09.53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 09.53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 09.53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 09.53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.28.19 09.53		
1,4-Difluorobenzene	540-36-3	94	%	70-130	11.28.19 09.53		



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS98** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-004 Date Collected: 11.26.19 11.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.6	10.0	mg/kg	11.27.19 19.22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.27.19 20.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.27.19 20.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.27.19 20.43	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.27.19 20.43	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.27.19 20.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	11.27.19 20.43	
o-Terphenyl	84-15-1	132	%	70-135	11.27.19 20.43	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS98**
Lab Sample Id: 644613-004

Matrix: Soil
Date Collected: 11.26.19 11.20

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.28.19 10.12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.28.19 10.12	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.28.19 10.12	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.28.19 10.12	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.28.19 10.12	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.28.19 10.12	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.28.19 10.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	11.28.19 10.12		
1,4-Difluorobenzene	540-36-3	82	%	70-130	11.28.19 10.12		



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS99** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-005 Date Collected: 11.26.19 11.25 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.2	9.94	mg/kg	11.27.19 19.28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.27.19 20.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.27.19 20.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.27.19 20.43	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.27.19 20.43	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.27.19 20.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	11.27.19 20.43	
o-Terphenyl	84-15-1	114	%	70-135	11.27.19 20.43	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS99**
 Lab Sample Id: 644613-005

Matrix: Soil
 Date Collected: 11.26.19 11.25

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 10.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 10.32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 10.32	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.28.19 10.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 10.32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 10.32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 10.32	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	11.28.19 10.32		
1,4-Difluorobenzene	540-36-3	81	%	70-130	11.28.19 10.32		



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS100** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-006 Date Collected: 11.26.19 11.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	83.1	10.1	mg/kg	11.27.19 19.46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.27.19 21.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.27.19 21.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.27.19 21.02	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.27.19 21.02	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.27.19 21.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	11.27.19 21.02	
o-Terphenyl	84-15-1	114	%	70-135	11.27.19 21.02	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS100**
 Lab Sample Id: 644613-006

Matrix: Soil
 Date Collected: 11.26.19 11.30

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.28.19 10.51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.28.19 10.51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.28.19 10.51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.28.19 10.51	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.28.19 10.51	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.28.19 10.51	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.28.19 10.51	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	86	%	70-130	11.28.19 10.51		
1,4-Difluorobenzene	540-36-3	81	%	70-130	11.28.19 10.51		



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS101** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-007 Date Collected: 11.26.19 11.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.6	10.0	mg/kg	11.27.19 19.52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.27.19 21.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.27.19 21.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.27.19 21.02	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.27.19 21.02	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.27.19 21.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.27.19 21.02	
o-Terphenyl	84-15-1	114	%	70-135	11.27.19 21.02	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS101**
 Lab Sample Id: 644613-007

Matrix: Soil
 Date Collected: 11.26.19 11.40

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.28.19 11.10	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.28.19 11.10	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.28.19 11.10	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.28.19 11.10	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.28.19 11.10	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.28.19 11.10	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.28.19 11.10	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		83	%	70-130	11.28.19 11.10	
4-Bromofluorobenzene	460-00-4		92	%	70-130	11.28.19 11.10	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS102** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644613-008 Date Collected: 11.26.19 12.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	28.6	10.1	mg/kg	11.27.19 19.58		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.27.19 21.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.27.19 21.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.27.19 21.22	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.27.19 21.22	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.27.19 21.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	11.27.19 21.22	
o-Terphenyl	84-15-1	118	%	70-135	11.27.19 21.22	



Certificate of Analytical Results 644613

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS102**
 Lab Sample Id: 644613-008

Matrix: Soil
 Date Collected: 11.26.19 12.00

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 11.29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 11.29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 11.29	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.28.19 11.29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 11.29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 11.29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 11.29	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		83	%	70-130	11.28.19 11.29	
4-Bromofluorobenzene	460-00-4		99	%	70-130	11.28.19 11.29	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109018

MB Sample Id: 7691385-1-BLK

Matrix: Solid

LCS Sample Id: 7691385-1-BKS

Prep Method: E300P

Date Prep: 11.27.19

LCSD Sample Id: 7691385-1-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	266	106	272	109	90-110	2	20	mg/kg	11.27.19 18:34	

Analytical Method: Chloride by EPA 300

Seq Number: 3109018

Parent Sample Id: 644612-001

Matrix: Soil

MS Sample Id: 644612-001 S

Prep Method: E300P

Date Prep: 11.27.19

MSD Sample Id: 644612-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	682	201	877	97	871	94	90-110	1	20	mg/kg	11.27.19 18:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3109018

Parent Sample Id: 644618-002

Matrix: Soil

MS Sample Id: 644618-002 S

Prep Method: E300P

Date Prep: 11.27.19

MSD Sample Id: 644618-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1860	198	2040	91	2060	100	90-110	1	20	mg/kg	11.27.19 20:17	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109042

MB Sample Id: 7691370-1-BLK

Matrix: Solid

LCS Sample Id: 7691370-1-BKS

Prep Method: SW8015P

Date Prep: 11.27.19

LCSD Sample Id: 7691370-1-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	897	90	1120	112	70-135	22	35	mg/kg	11.27.19 15:05	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1290	129	70-135	15	35	mg/kg	11.27.19 15:05	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		122		134		70-135	%	11.27.19 15:05
o-Terphenyl	114		129		126		70-135	%	11.27.19 15:05

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109048

MB Sample Id: 7691371-1-BLK

Matrix: Solid

LCS Sample Id: 7691371-1-BKS

Prep Method: SW8015P

Date Prep: 11.27.19

LCSD Sample Id: 7691371-1-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	980	98	918	92	70-135	7	35	mg/kg	11.27.19 19:43	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1120	112	70-135	2	35	mg/kg	11.27.19 19:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		129		128		70-135	%	11.27.19 19:43
o-Terphenyl	111		134		130		70-135	%	11.27.19 19:43

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109042

Matrix: Solid

MB Sample Id: 7691370-1-BLK

Prep Method: SW8015P

Date Prep: 11.27.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.27.19 15:05	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109048

Matrix: Solid

MB Sample Id: 7691371-1-BLK

Prep Method: SW8015P

Date Prep: 11.27.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.27.19 19:23	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109042

Matrix: Soil

Parent Sample Id: 644605-009

MS Sample Id: 644605-009 S

Prep Method: SW8015P

Date Prep: 11.27.19

MSD Sample Id: 644605-009 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	1050	105	895	90	70-135	16	35	mg/kg	11.27.19 15:45	
Diesel Range Organics (DRO)	<50.2	1000	1080	108	1280	128	70-135	17	35	mg/kg	11.27.19 15:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	84		104		70-135	%	11.27.19 15:45
o-Terphenyl	90		124		70-135	%	11.27.19 15:45

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109048

Parent Sample Id: 644613-002

Matrix: Soil

MS Sample Id: 644613-002 S

Prep Method: SW8015P

Date Prep: 11.27.19

MSD Sample Id: 644613-002 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	924	92	1010	101	70-135	9	35	mg/kg	11.27.19 20:03	
Diesel Range Organics (DRO)	<50.1	1000	1120	112	1180	118	70-135	5	35	mg/kg	11.27.19 20:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		133		70-135	%	11.27.19 20:03
o-Terphenyl	126		129		70-135	%	11.27.19 20:03

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109035

MB Sample Id: 7691379-1-BLK

Matrix: Solid

LCS Sample Id: 7691379-1-BKS

Prep Method: SW5030B

Date Prep: 11.27.19

LCSD Sample Id: 7691379-1-BSL

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	0.0773	77	0.0848	85	70-130	9	35	mg/kg	11.28.19 07:33	
Toluene	<0.00200	0.100	0.0791	79	0.0879	88	70-130	11	35	mg/kg	11.28.19 07:33	
Ethylbenzene	<0.00200	0.100	0.0771	77	0.0860	86	71-129	11	35	mg/kg	11.28.19 07:33	
m,p-Xylenes	<0.00400	0.200	0.165	83	0.184	92	70-135	11	35	mg/kg	11.28.19 07:33	
o-Xylene	<0.00200	0.100	0.0861	86	0.0963	96	71-133	11	35	mg/kg	11.28.19 07:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		101		70-130	%	11.28.19 07:33
4-Bromofluorobenzene	104		107		109		70-130	%	11.28.19 07:33

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109035

Parent Sample Id: 644613-001

Matrix: Soil

MS Sample Id: 644613-001 S

Prep Method: SW5030B

Date Prep: 11.27.19

MSD Sample Id: 644613-001 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	0.0346	35	0.0190	19	70-130	58	35	mg/kg	11.28.19 08:11	XF
Toluene	<0.00200	0.100	0.0412	41	0.0241	24	70-130	52	35	mg/kg	11.28.19 08:11	XF
Ethylbenzene	<0.00200	0.100	0.0418	42	0.0245	25	71-129	52	35	mg/kg	11.28.19 08:11	XF
m,p-Xylenes	<0.00401	0.200	0.0896	45	0.0520	26	70-135	53	35	mg/kg	11.28.19 08:11	XF
o-Xylene	<0.00200	0.100	0.0514	51	0.0315	32	71-133	48	35	mg/kg	11.28.19 08:11	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		93		70-130	%	11.28.19 08:11
4-Bromofluorobenzene	117		116		70-130	%	11.28.19 08:11

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

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

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) 902-0200 San Antonio, TX (210) 566-5534
 Midland, TX (432) 704-5445 El Paso, TX (915) 855-3443 Lubbock, TX (806) 794-1250
 Irvin, NM (505) 302-7500 Phoenix, AZ (480) 355-0000 Atlanta, GA (770) 449-8000 Tampa, FL (813) 620-5700

Chain of Custody

Work Order No: 1041113

Project Manager:	Dan Mair	SR for (if known)	Kyle (JTB)
Company Name:	LT Environmental, Inc. - Permian office	Company Name:	XTO Energy
Address:	3500 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432 704 5178	Email:	jdair@xtoenergy.com, mair@xtoenergy.com

Program: UST/PSI	☐ FRP	☐ Sewerfields	☐ RC	☐ Superfund
State of Project:				
Reporting Level II	☐ Level III	☐ DRI/UST	☐ SRP	☐ Level IV
Deliverables: EROD	☐	Adapt	☐	Other:

ANALYSIS REQUEST

Work Order Notes

Project Name:	Ross Dam CDP	Turn Around	
Project Number:	012919237	Rollout	☐
P.O. Number:		Rollout	3 day
Sampler's Name:	Robert McAlister	Due Date:	

Number of Containers			
TPH (EPA 801E)			
BTEX (EPA 8010-1)			
Chloride (EPA 300.0)			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 801E)	BTEX (EPA 8010-1)	Chloride (EPA 300.0)	TAI (mils (1/16" interval by the 100, if received by 6:30pm)	Sample Comments
FS95	S	11/26/11	11:05	0.5'	1	X	X	X		
FS96			11:05			X	X	X		
FS97			11:15			X	X	X		
FS98			11:25			X	X	X		
FS99			11:30			X	X	X		
FS100			11:30			X	X	X		
FS101			11:40			X	X	X		
FS102			12:05			X	X	X		

Total 200.7 / 6010

200.8 / 6020:

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

BRCRA 13PPM Texas 11 A1 Bb As Ba Bb B Cd Ca C Co Cu Fe Pb Mg Mn Mo Ni K Sb Ag SiO2 Na Ss Ti Sn U V Zn

TCLP / SPLP 6010: BRCRA Sb As Bb Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 Hg

Notice: Signatures of the document and submittance of samples constitute a valid purchase order from client company to Xenco, its affiliates and subcontractors. Xenco's standard terms and conditions of service apply. Samples will be held only for the cost of samples and will not ensure 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 \$15.00 will be applied to each project and a charge of \$5 per each sample submitted to Xenco, but not analyzed. These terms will be reduced unless previously requested.

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/27/2019 09:50:00 AM

Work Order #: 644613

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 11/27/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/27/2019

Analytical Report 644618

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

02-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



02-DEC-19

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

Reference: XENCO Report No(s): **644618**
Ross Draw CDP
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 644618. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 644618 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in dark ink, appearing to read 'Jessica Kramer', is written over a horizontal line.

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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**Sample Cross Reference 644618****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS75	S	11-23-19 13:15	0.5 ft	644618-001
FS77	S	11-23-19 13:20	0.5 ft	644618-002
FS78	S	11-23-19 13:25	0.5 ft	644618-003
FS79	S	11-23-19 13:30	0.5 ft	644618-004
FS80	S	11-23-19 14:00	0.5 ft	644618-005
FS81	S	11-25-19 13:00	0.5 ft	644618-006
FS82	S	11-25-19 13:10	0.5 ft	644618-007
FS83	S	11-25-19 13:15	0.5 ft	644618-008
FS84	S	11-25-19 13:20	0.5 ft	644618-009
FS85	S	11-25-19 13:25	0.5 ft	644618-010
FS86	S	11-25-19 13:30	0.5 ft	644618-011
FS87	S	11-25-19 13:35	0.5 ft	644618-012
FS88	S	11-25-19 13:40	0.5 ft	644618-013
FS89	S	11-25-19 14:00	0.5 ft	644618-014
FS90	S	11-25-19 14:10	0.5 ft	644618-015
FS91	S	11-25-19 14:20	0.5 ft	644618-016
FS92	S	11-25-19 14:30	0.5 ft	644618-017
FS94	S	11-25-19 14:40	0.5 ft	644618-018

**CASE NARRATIVE****Client Name: LT Environmental, Inc.****Project Name: Ross Draw CDP**Project ID: 012919277
Work Order Number(s): 644618Report Date: 02-DEC-19
Date Received: 11/27/2019**Sample receipt non conformances and comments:**

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109022 Chloride by EPA 300

Lab Sample ID 644623-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 644618-012, -013, -014, -015, -016, -017, -018.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3109035 BTEX by EPA 8021B

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

Batch: LBA-3109038 BTEX by EPA 8021B

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

Lab Sample ID 644618-013 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes , o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 644618-013, -014, -015, -016, -017, -018.

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

Benzene, Ethylbenzene, Toluene, m,p-Xylenes , o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.

Samples in the analytical batch are: 644618-013, -014, -015, -016, -017, -018

Batch: LBA-3109059 TPH by SW8015 Mod

Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 644618-014 SD.

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 644618-017.



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 644618

Report Date: 02-DEC-19
Date Received: 11/27/2019



Certificate of Analysis Summary 644618

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Nov-27-19 09:50 am

Report Date: 02-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644618-001	644618-002	644618-003	644618-004	644618-005	644618-006
	<i>Field Id:</i>	FS75	FS77	FS78	FS79	FS80	FS81
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-23-19 13:15	Nov-23-19 13:20	Nov-23-19 13:25	Nov-23-19 13:30	Nov-23-19 14:00	Nov-25-19 13:00
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11
	<i>Analyzed:</i>	Nov-28-19 11:48	Nov-28-19 12:07	Nov-28-19 13:11	Nov-28-19 13:30	Nov-28-19 13:49	Nov-28-19 14:09
	<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	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Toluene		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Ethylbenzene		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
m,p-Xylenes		<0.00395 0.00395	<0.00403 0.00403	<0.00401 0.00401	<0.00401 0.00401	<0.00402 0.00402	<0.00403 0.00403
o-Xylene		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Total Xylenes		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Total BTEX		<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11
	<i>Analyzed:</i>	Nov-27-19 20:04	Nov-27-19 20:11	Nov-27-19 20:29	Nov-27-19 20:35	Nov-27-19 20:41	Nov-27-19 20:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1050 100	1860 99.8	1030 98.8	1530 99.2	961 98.8	880 99.8
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30
	<i>Analyzed:</i>	Nov-27-19 21:22	Nov-27-19 21:42	Nov-27-19 21:42	Nov-27-19 22:02	Nov-27-19 22:22	Nov-27-19 22:22
	<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)		<50.3 50.3	<50.3 50.3	<49.9 49.9	<50.3 50.3	<50.1 50.1	<50.2 50.2
Diesel Range Organics (DRO)		<50.3 50.3	<50.3 50.3	<49.9 49.9	<50.3 50.3	<50.1 50.1	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<50.3 50.3	<49.9 49.9	<50.3 50.3	<50.1 50.1	<50.2 50.2
Total GRO-DRO		<50.3 50.3	<50.3 50.3	<49.9 49.9	<50.3 50.3	<50.1 50.1	<50.2 50.2
Total TPH		<50.3 50.3	<50.3 50.3	<49.9 49.9	<50.3 50.3	<50.1 50.1	<50.2 50.2

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644618



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Nov-27-19 09:50 am

Report Date: 02-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	644618-007	644618-008	644618-009	644618-010	644618-011	644618-012
	Field Id:	FS82	FS83	FS84	FS85	FS86	FS87
	Depth:	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Nov-25-19 13:10	Nov-25-19 13:15	Nov-25-19 13:20	Nov-25-19 13:25	Nov-25-19 13:30	Nov-25-19 13:35
BTEX by EPA 8021B	Extracted:	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11	Nov-27-19 16:11
	Analyzed:	Nov-28-19 14:28	Nov-28-19 14:47	Nov-28-19 15:06	Nov-28-19 15:25	Nov-28-19 15:44	Nov-28-19 16:03
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00404 0.00404	<0.00399 0.00399	<0.00398 0.00398	<0.00401 0.00401	<0.00402 0.00402	<0.00399 0.00399
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	Extracted:	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-27-19 13:11	Nov-30-19 17:11
	Analyzed:	Nov-27-19 20:53	Nov-27-19 20:59	Nov-27-19 21:17	Nov-27-19 21:23	Nov-27-19 21:29	Nov-30-19 18:00
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		583 99.2	306 99.8	278 D 9.92	118 D 10.0	181 D 9.88	<101 101
TPH by SW8015 Mod	Extracted:	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30	Nov-27-19 15:30
	Analyzed:	Nov-27-19 22:42	Nov-27-19 22:42	Nov-27-19 23:01	Nov-27-19 23:01	Nov-27-19 23:21	Nov-27-19 23:21
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.8 49.8
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.8 49.8
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.8 49.8
Total TPH		<50.2 50.2	<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.8 49.8

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 644618

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Nov-27-19 09:50 am

Report Date: 02-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644618-013	644618-014	644618-015	644618-016	644618-017	644618-018
	<i>Field Id:</i>	FS88	FS89	FS90	FS91	FS92	FS94
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-25-19 13:40	Nov-25-19 14:00	Nov-25-19 14:10	Nov-25-19 14:20	Nov-25-19 14:30	Nov-25-19 14:40
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-27-19 17:11	Nov-27-19 17:11	Nov-27-19 17:11	Nov-27-19 17:11	Nov-27-19 17:11	Nov-27-19 17:11
	<i>Analyzed:</i>	Nov-28-19 19:09	Nov-28-19 19:28	Nov-28-19 19:47	Nov-28-19 20:06	Nov-28-19 20:25	Nov-28-19 20:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
m,p-Xylenes		<0.00403 0.00403	<0.00399 0.00399	<0.00398 0.00398	<0.00403 0.00403	<0.00404 0.00404	<0.00401 0.00401
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11
	<i>Analyzed:</i>	Nov-30-19 18:16	Nov-30-19 18:22	Nov-30-19 18:28	Nov-30-19 18:44	Nov-30-19 18:50	Nov-30-19 18:55
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		50.1 10.0	108 49.9	222 9.94	143 9.98	78.9 9.94	192 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-27-19 15:30	Nov-27-19 17:00	Nov-27-19 17:00	Nov-27-19 17:00	Nov-27-19 17:00	Nov-27-19 17:00
	<i>Analyzed:</i>	Nov-27-19 23:41	Nov-28-19 00:20	Nov-28-19 01:00	Nov-28-19 01:00	Nov-28-19 01:20	Nov-28-19 01:20
	<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	<50.1 50.1	<49.8 49.8	<50.1 50.1	<49.8 49.8	<50.1 50.1
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<49.8 49.8	<50.1 50.1	<49.8 49.8	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<49.8 49.8	<50.1 50.1	<49.8 49.8	<50.1 50.1
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<49.8 49.8	<50.1 50.1	<49.8 49.8	<50.1 50.1
Total TPH		<50.2 50.2	<50.1 50.1	<49.8 49.8	<50.1 50.1	<49.8 49.8	<50.1 50.1

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS75** Matrix: **Soil** Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-001 Date Collected: 11.23.19 13.15 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.27.19 13.11 Basis: **Wet Weight**
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1050	100	mg/kg	11.27.19 20.04		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.27.19 15.30 Basis: **Wet Weight**
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.27.19 21.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.27.19 21.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.27.19 21.22	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.27.19 21.22	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.27.19 21.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	11.27.19 21.22	
o-Terphenyl	84-15-1	116	%	70-135	11.27.19 21.22	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS75**
 Lab Sample Id: 644618-001

Matrix: Soil
 Date Collected: 11.23.19 13.15

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.28.19 11.48	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.28.19 11.48	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.28.19 11.48	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	11.28.19 11.48	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.28.19 11.48	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.28.19 11.48	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.28.19 11.48	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102		%	70-130	11.28.19 11.48	
1,4-Difluorobenzene	540-36-3	95		%	70-130	11.28.19 11.48	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS77** Matrix: **Soil** Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-002 Date Collected: 11.23.19 13.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.27.19 13.11 Basis: **Wet Weight**
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1860	99.8	mg/kg	11.27.19 20.11		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.27.19 15.30 Basis: **Wet Weight**
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.27.19 21.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.27.19 21.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.27.19 21.42	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.27.19 21.42	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.27.19 21.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	11.27.19 21.42	
o-Terphenyl	84-15-1	119	%	70-135	11.27.19 21.42	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS77**
 Lab Sample Id: 644618-002

Matrix: Soil
 Date Collected: 11.23.19 13.20

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 12.07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 12.07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 12.07	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.28.19 12.07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 12.07	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 12.07	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 12.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	84	%	70-130	11.28.19 12.07		
4-Bromofluorobenzene	460-00-4	90	%	70-130	11.28.19 12.07		



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS78** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-003 Date Collected: 11.23.19 13.25 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1030	98.8	mg/kg	11.27.19 20.29		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.27.19 21.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.27.19 21.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.27.19 21.42	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.27.19 21.42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.27.19 21.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	11.27.19 21.42	
o-Terphenyl	84-15-1	118	%	70-135	11.27.19 21.42	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS78**
 Lab Sample Id: 644618-003

Matrix: Soil
 Date Collected: 11.23.19 13.25

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 13.11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 13.11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 13.11	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.28.19 13.11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 13.11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 13.11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 13.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	11.28.19 13.11		
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.28.19 13.11		



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS79** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-004 Date Collected: 11.23.19 13.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1530	99.2	mg/kg	11.27.19 20.35		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.27.19 22.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.27.19 22.02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.27.19 22.02	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	11.27.19 22.02	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.27.19 22.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	11.27.19 22.02	
o-Terphenyl	84-15-1	119	%	70-135	11.27.19 22.02	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS79**
Lab Sample Id: 644618-004

Matrix: Soil
Date Collected: 11.23.19 13.30

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 13.30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 13.30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 13.30	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.28.19 13.30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 13.30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 13.30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 13.30	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	86		%	70-130	11.28.19 13.30	
4-Bromofluorobenzene	460-00-4	101		%	70-130	11.28.19 13.30	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS80** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-005 Date Collected: 11.23.19 14.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	961	98.8	mg/kg	11.27.19 20.41		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.27.19 22.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.27.19 22.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.27.19 22.22	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.27.19 22.22	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.27.19 22.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	11.27.19 22.22	
o-Terphenyl	84-15-1	122	%	70-135	11.27.19 22.22	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS80**
 Lab Sample Id: 644618-005

Matrix: Soil
 Date Collected: 11.23.19 14.00

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.28.19 13.49	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.28.19 13.49	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.28.19 13.49	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.28.19 13.49	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.28.19 13.49	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.28.19 13.49	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.28.19 13.49	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105		%	70-130	11.28.19 13.49	
1,4-Difluorobenzene	540-36-3	97		%	70-130	11.28.19 13.49	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS81** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-006 Date Collected: 11.25.19 13.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	880	99.8	mg/kg	11.27.19 20.47		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.27.19 22.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.27.19 22.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.27.19 22.22	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.27.19 22.22	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.27.19 22.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	11.27.19 22.22	
o-Terphenyl	84-15-1	118	%	70-135	11.27.19 22.22	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS81**
 Lab Sample Id: 644618-006

Matrix: Soil
 Date Collected: 11.25.19 13.00

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 14.09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 14.09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 14.09	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.28.19 14.09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 14.09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 14.09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 14.09	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113		%	70-130	11.28.19 14.09	
1,4-Difluorobenzene	540-36-3	103		%	70-130	11.28.19 14.09	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS82** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-007 Date Collected: 11.25.19 13.10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	583	99.2	mg/kg	11.27.19 20.53		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.27.19 22.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.27.19 22.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.27.19 22.42	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.27.19 22.42	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.27.19 22.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	11.27.19 22.42	
o-Terphenyl	84-15-1	121	%	70-135	11.27.19 22.42	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS82**
 Lab Sample Id: 644618-007

Matrix: Soil
 Date Collected: 11.25.19 13.10

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 14.28	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 14.28	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 14.28	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.28.19 14.28	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 14.28	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 14.28	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 14.28	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		81	%	70-130	11.28.19 14.28	
4-Bromofluorobenzene	460-00-4		85	%	70-130	11.28.19 14.28	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS83** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-008 Date Collected: 11.25.19 13.15 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	306	99.8	mg/kg	11.27.19 20.59		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.27.19 22.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.27.19 22.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.27.19 22.42	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.27.19 22.42	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.27.19 22.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	11.27.19 22.42	
o-Terphenyl	84-15-1	120	%	70-135	11.27.19 22.42	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS83**
 Lab Sample Id: 644618-008

Matrix: Soil
 Date Collected: 11.25.19 13.15

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 14.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 14.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 14.47	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.28.19 14.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 14.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 14.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 14.47	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104		%	70-130	11.28.19 14.47	
1,4-Difluorobenzene	540-36-3	85		%	70-130	11.28.19 14.47	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS84** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-009 Date Collected: 11.25.19 13.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	278	9.92	mg/kg	11.30.19 17.43	D	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.27.19 23.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	11.27.19 23.01	
o-Terphenyl	84-15-1	116	%	70-135	11.27.19 23.01	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS84**
 Lab Sample Id: 644618-009

Matrix: Soil
 Date Collected: 11.25.19 13.20

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.28.19 15.06	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.28.19 15.06	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.28.19 15.06	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.28.19 15.06	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.28.19 15.06	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.28.19 15.06	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.28.19 15.06	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		100	%	70-130	11.28.19 15.06	
1,4-Difluorobenzene	540-36-3		90	%	70-130	11.28.19 15.06	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS85** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-010 Date Collected: 11.25.19 13.25 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	118	10.0	mg/kg	11.30.19 17.48	D	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.27.19 23.01	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.27.19 23.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.27.19 23.01	
o-Terphenyl	84-15-1	116	%	70-135	11.27.19 23.01	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS85**
 Lab Sample Id: 644618-010

Matrix: Soil
 Date Collected: 11.25.19 13.25

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 15.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 15.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 15.25	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.28.19 15.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 15.25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 15.25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 15.25	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		104	%	70-130	11.28.19 15.25	
1,4-Difluorobenzene	540-36-3		85	%	70-130	11.28.19 15.25	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS86** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-011 Date Collected: 11.25.19 13.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.27.19 13.11 Basis: Wet Weight
 Seq Number: 3109018

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	181	9.88	mg/kg	11.30.19 17.54	D	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.27.19 23.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.27.19 23.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.27.19 23.21	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.27.19 23.21	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.27.19 23.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	11.27.19 23.21	
o-Terphenyl	84-15-1	117	%	70-135	11.27.19 23.21	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS86**
 Lab Sample Id: 644618-011

Matrix: Soil
 Date Collected: 11.25.19 13.30

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.28.19 15.44	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.28.19 15.44	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.28.19 15.44	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.28.19 15.44	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.28.19 15.44	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.28.19 15.44	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.28.19 15.44	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	11.28.19 15.44		
1,4-Difluorobenzene	540-36-3	83	%	70-130	11.28.19 15.44		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS87** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-012 Date Collected: 11.25.19 13.35 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<101	101	mg/kg	11.30.19 18.00	U	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.27.19 23.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.27.19 23.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.27.19 23.21	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.27.19 23.21	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.27.19 23.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	11.27.19 23.21	
o-Terphenyl	84-15-1	118	%	70-135	11.27.19 23.21	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS87**
 Lab Sample Id: 644618-012

Matrix: Soil
 Date Collected: 11.25.19 13.35

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 16.11

Basis: Wet Weight

Seq Number: 3109035

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 16.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 16.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 16.03	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.28.19 16.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 16.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 16.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 16.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.28.19 16.03		
1,4-Difluorobenzene	540-36-3	97	%	70-130	11.28.19 16.03		



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS88** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-013 Date Collected: 11.25.19 13.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.1	10.0	mg/kg	12.01.19 11.13		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 15.30 Basis: Wet Weight
 Seq Number: 3109048

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.27.19 23.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.27.19 23.41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.27.19 23.41	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.27.19 23.41	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.27.19 23.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	11.27.19 23.41	
o-Terphenyl	84-15-1	120	%	70-135	11.27.19 23.41	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS88**
 Lab Sample Id: 644618-013

Matrix: Soil
 Date Collected: 11.25.19 13.40

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 17.11

Basis: Wet Weight

Seq Number: 3109038

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 19.09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 19.09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 19.09	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.28.19 19.09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 19.09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 19.09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 19.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	11.28.19 19.09		
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.28.19 19.09		



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS89** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-014 Date Collected: 11.25.19 14.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	108	49.9	mg/kg	11.30.19 18.22		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.28.19 00.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.28.19 00.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.28.19 00.20	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.28.19 00.20	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.28.19 00.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	11.28.19 00.20	
o-Terphenyl	84-15-1	97	%	70-135	11.28.19 00.20	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS89**
 Lab Sample Id: 644618-014

Matrix: Soil
 Date Collected: 11.25.19 14.00

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 17.11

Basis: Wet Weight

Seq Number: 3109038

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 19.28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 19.28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 19.28	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.28.19 19.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 19.28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 19.28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 19.28	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4		113	%	70-130	11.28.19 19.28	
1,4-Difluorobenzene	540-36-3		96	%	70-130	11.28.19 19.28	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS90** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-015 Date Collected: 11.25.19 14.10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	222	9.94	mg/kg	12.01.19 11.19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.28.19 01.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.28.19 01.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.28.19 01.00	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.28.19 01.00	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.28.19 01.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-135	11.28.19 01.00	
o-Terphenyl	84-15-1	132	%	70-135	11.28.19 01.00	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS90**
 Lab Sample Id: 644618-015

Matrix: Soil
 Date Collected: 11.25.19 14.10

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 17.11

Basis: Wet Weight

Seq Number: 3109038

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.28.19 19.47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.28.19 19.47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.28.19 19.47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.28.19 19.47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.28.19 19.47	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.28.19 19.47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.28.19 19.47	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		101	%	70-130	11.28.19 19.47	
4-Bromofluorobenzene	460-00-4		114	%	70-130	11.28.19 19.47	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS91** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-016 Date Collected: 11.25.19 14.20 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	143	9.98	mg/kg	12.01.19 11.24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.28.19 01.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.28.19 01.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.28.19 01.00	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.28.19 01.00	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.28.19 01.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	11.28.19 01.00	
o-Terphenyl	84-15-1	132	%	70-135	11.28.19 01.00	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS91**
Lab Sample Id: 644618-016

Matrix: Soil
Date Collected: 11.25.19 14.20

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 17.11

Basis: Wet Weight

Seq Number: 3109038

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 20.06	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 20.06	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 20.06	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.28.19 20.06	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 20.06	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 20.06	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 20.06	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116		%	70-130	11.28.19 20.06	
1,4-Difluorobenzene	540-36-3	103		%	70-130	11.28.19 20.06	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS92** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-017 Date Collected: 11.25.19 14.30 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	78.9	9.94	mg/kg	12.01.19 11.30		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.28.19 01.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.28.19 01.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.28.19 01.20	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.28.19 01.20	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.28.19 01.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	134	%	70-135	11.28.19 01.20	
o-Terphenyl	84-15-1	136	%	70-135	11.28.19 01.20	**



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS92**
 Lab Sample Id: 644618-017

Matrix: Soil
 Date Collected: 11.25.19 14.30

Date Received: 11.27.19 09.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 17.11

Basis: Wet Weight

Seq Number: 3109038

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.28.19 20.25	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.28.19 20.25	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.28.19 20.25	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.28.19 20.25	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.28.19 20.25	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.28.19 20.25	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.28.19 20.25	U	1
		% Recovery					
Surrogate	Cas Number			Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3		84	%	70-130	11.28.19 20.25	
4-Bromofluorobenzene	460-00-4		101	%	70-130	11.28.19 20.25	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS94** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644618-018 Date Collected: 11.25.19 14.40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	192	9.98	mg/kg	12.01.19 11.35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.28.19 01.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.28.19 01.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.28.19 01.20	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.28.19 01.20	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.28.19 01.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	126	%	70-135	11.28.19 01.20	
o-Terphenyl	84-15-1	134	%	70-135	11.28.19 01.20	



Certificate of Analytical Results 644618

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS94**
Lab Sample Id: 644618-018

Matrix: Soil
Date Collected: 11.25.19 14.40

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 11.27.19 17.11

Basis: Wet Weight

Seq Number: 3109038

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.28.19 20.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.28.19 20.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.28.19 20.44	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.28.19 20.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.28.19 20.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.28.19 20.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.28.19 20.44	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112		%	70-130	11.28.19 20.44	
1,4-Difluorobenzene	540-36-3	98		%	70-130	11.28.19 20.44	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109018

MB Sample Id: 7691385-1-BLK

Matrix: Solid

LCS Sample Id: 7691385-1-BKS

Prep Method: E300P

Date Prep: 11.27.19

LCSD Sample Id: 7691385-1-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	266	106	272	109	90-110	2	20	mg/kg	11.27.19 18:34	

Analytical Method: Chloride by EPA 300

Seq Number: 3109022

MB Sample Id: 7691386-1-BLK

Matrix: Solid

LCS Sample Id: 7691386-1-BKS

Prep Method: E300P

Date Prep: 11.30.19

LCSD Sample Id: 7691386-1-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	268	107	262	105	90-110	2	20	mg/kg	11.30.19 17:32	

Analytical Method: Chloride by EPA 300

Seq Number: 3109018

Parent Sample Id: 644612-001

Matrix: Soil

MS Sample Id: 644612-001 S

Prep Method: E300P

Date Prep: 11.27.19

MSD Sample Id: 644612-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	682	201	877	97	871	94	90-110	1	20	mg/kg	11.27.19 18:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3109018

Parent Sample Id: 644618-002

Matrix: Soil

MS Sample Id: 644618-002 S

Prep Method: E300P

Date Prep: 11.27.19

MSD Sample Id: 644618-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1860	198	2040	91	2060	100	90-110	1	20	mg/kg	11.27.19 20:17	

Analytical Method: Chloride by EPA 300

Seq Number: 3109022

Parent Sample Id: 644618-012

Matrix: Soil

MS Sample Id: 644618-012 S

Prep Method: E300P

Date Prep: 11.30.19

MSD Sample Id: 644618-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	55.3	202	237	90	228	86	90-110	4	20	mg/kg	11.30.19 18:05	X

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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109022

Parent Sample Id: 644623-004

Matrix: Soil

MS Sample Id: 644623-004 S

Prep Method: E300P

Date Prep: 11.30.19

MSD Sample Id: 644623-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2270	2010	4430	107	4440	109	90-110	0	20	mg/kg	11.30.19 19:24	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109048

MB Sample Id: 7691371-1-BLK

Matrix: Solid

LCS Sample Id: 7691371-1-BKS

Prep Method: SW8015P

Date Prep: 11.27.19

LCSD Sample Id: 7691371-1-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	980	98	918	92	70-135	7	35	mg/kg	11.27.19 19:43	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1120	112	70-135	2	35	mg/kg	11.27.19 19:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		129		128		70-135	%	11.27.19 19:43
o-Terphenyl	111		134		130		70-135	%	11.27.19 19:43

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109059

MB Sample Id: 7691372-1-BLK

Matrix: Solid

LCS Sample Id: 7691372-1-BKS

Prep Method: SW8015P

Date Prep: 11.27.19

LCSD Sample Id: 7691372-1-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	927	93	963	96	70-135	4	35	mg/kg	11.28.19 00:01	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1110	111	70-135	3	35	mg/kg	11.28.19 00:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		123		133		70-135	%	11.28.19 00:01
o-Terphenyl	126		132		130		70-135	%	11.28.19 00:01

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109048

Matrix: Solid

MB Sample Id: 7691371-1-BLK

Prep Method: SW8015P

Date Prep: 11.27.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.27.19 19:23	

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109059

Matrix: Solid

Prep Method: SW8015P

Date Prep: 11.27.19

MB Sample Id: 7691372-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.28.19 00:01	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109048

Matrix: Soil

Prep Method: SW8015P

Date Prep: 11.27.19

Parent Sample Id: 644613-002

MS Sample Id: 644613-002 S

MSD Sample Id: 644613-002 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	924	92	1010	101	70-135	9	35	mg/kg	11.27.19 20:03	
Diesel Range Organics (DRO)	<50.1	1000	1120	112	1180	118	70-135	5	35	mg/kg	11.27.19 20:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		133		70-135	%	11.27.19 20:03
o-Terphenyl	126		129		70-135	%	11.27.19 20:03

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109059

Matrix: Soil

Prep Method: SW8015P

Date Prep: 11.27.19

Parent Sample Id: 644618-014

MS Sample Id: 644618-014 S

MSD Sample Id: 644618-014 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)	<50.0	999	1080	108	945	95	70-135	13	35	mg/kg	11.28.19 00:40	
Diesel Range Organics (DRO)	<50.0	999	1310	131	1190	119	70-135	10	35	mg/kg	11.28.19 00:40	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		137	**	70-135	%	11.28.19 00:40
o-Terphenyl	130		133		70-135	%	11.28.19 00:40

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. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109035

MB Sample Id: 7691379-1-BLK

Matrix: Solid

LCS Sample Id: 7691379-1-BKS

Prep Method: SW5030B

Date Prep: 11.27.19

LCSD Sample Id: 7691379-1-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	0.0773	77	0.0848	85	70-130	9	35	mg/kg	11.28.19 07:33	
Toluene	<0.00200	0.100	0.0791	79	0.0879	88	70-130	11	35	mg/kg	11.28.19 07:33	
Ethylbenzene	<0.00200	0.100	0.0771	77	0.0860	86	71-129	11	35	mg/kg	11.28.19 07:33	
m,p-Xylenes	<0.00400	0.200	0.165	83	0.184	92	70-135	11	35	mg/kg	11.28.19 07:33	
o-Xylene	<0.00200	0.100	0.0861	86	0.0963	96	71-133	11	35	mg/kg	11.28.19 07:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		101		70-130	%	11.28.19 07:33
4-Bromofluorobenzene	104		107		109		70-130	%	11.28.19 07:33

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109038

MB Sample Id: 7691380-1-BLK

Matrix: Solid

LCS Sample Id: 7691380-1-BKS

Prep Method: SW5030B

Date Prep: 11.27.19

LCSD Sample Id: 7691380-1-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	0.0773	77	0.0848	85	70-130	9	35	mg/kg	11.28.19 07:33	
Toluene	<0.00200	0.100	0.0791	79	0.0879	88	70-130	11	35	mg/kg	11.28.19 07:33	
Ethylbenzene	<0.00200	0.100	0.0771	77	0.0860	86	71-129	11	35	mg/kg	11.28.19 07:33	
m,p-Xylenes	<0.00400	0.200	0.165	83	0.184	92	70-135	11	35	mg/kg	11.28.19 07:33	
o-Xylene	<0.00200	0.100	0.0861	86	0.0963	96	71-133	11	35	mg/kg	11.28.19 07:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		101		70-130	%	11.28.19 07:33
4-Bromofluorobenzene	104		107		109		70-130	%	11.28.19 07:33

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109035

Parent Sample Id: 644613-001

Matrix: Soil

MS Sample Id: 644613-001 S

Prep Method: SW5030B

Date Prep: 11.27.19

MSD Sample Id: 644613-001 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	0.0346	35	0.0190	19	70-130	58	35	mg/kg	11.28.19 08:11	XF
Toluene	<0.00200	0.100	0.0412	41	0.0241	24	70-130	52	35	mg/kg	11.28.19 08:11	XF
Ethylbenzene	<0.00200	0.100	0.0418	42	0.0245	25	71-129	52	35	mg/kg	11.28.19 08:11	XF
m,p-Xylenes	<0.00401	0.200	0.0896	45	0.0520	26	70-135	53	35	mg/kg	11.28.19 08:11	XF
o-Xylene	<0.00200	0.100	0.0514	51	0.0315	32	71-133	48	35	mg/kg	11.28.19 08:11	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		93		70-130	%	11.28.19 08:11
4-Bromofluorobenzene	117		116		70-130	%	11.28.19 08:11

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

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

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109038

Parent Sample Id: 644618-013

Matrix: Soil

MS Sample Id: 644618-013 S

Prep Method: SW5030B

Date Prep: 11.27.19

MSD Sample Id: 644618-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0225	23	0.0619	61	70-130	93	35	mg/kg	11.28.19 18:05	XF
Toluene	<0.00200	0.100	0.0265	27	0.0628	62	70-130	81	35	mg/kg	11.28.19 18:05	XF
Ethylbenzene	<0.00200	0.100	0.0268	27	0.0600	59	71-129	76	35	mg/kg	11.28.19 18:05	XF
m,p-Xylenes	<0.00401	0.200	0.0587	29	0.125	62	70-135	72	35	mg/kg	11.28.19 18:05	XF
o-Xylene	<0.00200	0.100	0.0352	35	0.0691	68	71-133	65	35	mg/kg	11.28.19 18:05	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		100		70-130	%	11.28.19 18:05
4-Bromofluorobenzene	116		113		70-130	%	11.28.19 18:05

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



Houston, TX (281) 240-4200; Duluth, TX (714) 802-0330; San Antonio, TX (710) 509-3330; Madison, TX (409) 704-0440; Ft. Worth, TX (817) 585-0443; Lubbock, TX (806) 741-1200; Houston, NM (817) 302-7550; Phoenix, AZ (480) 355-0500; Atlanta, GA (770) 443-0000; Tampa, FL (813) 833-3333.

Work Order No: 227

Page 1 of 2

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Chain of Custody

Project Manager:		Don Mow	Bill No. (if different)	Kyle Little
Company Name:		LT Environmental, Inc., Houston office	Company Name:	XTO-Energy
Address:		3300 North A Street	Address:	Garland, NM
City, State ZIP:		Midland, TX 79705	City, State ZIP:	
Phone:		432 704 5178	Email:	don@mow.com

Program: UST/ST ☐ RP ☐ Groundfalls ☐ IC ☐ Superfund ☐				
State of Project:				
Reporting Level: I ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐				
Distributor: EDS ☐ ADAPT ☐ Other:				

Work Order Number:

Project Name	Rock Creek CDP	Turn Around
Field Number	012719217	Routing ☐
P.O. Number		Route 3 day
Sampler's Name	Robert McAlone	Due Date

SAMPLE RECEIPT		Temp Blank	Yes ☒ No ☐	Wet Ice	Yes ☒ No ☐
Temperature (°C)	1.4	Thermometer ID			
Received Initial	Yes ☒ No ☐	I - NY-207			
Cooler Outbody Serial	Yes ☒ No ☐	Correction Factor			
Sample Quality Serial	Yes ☒ No ☐	Total Containers			

Number of Containers	1
(EPA 8016)	
(EPA 8021)	
(EPA 8022)	
(EPA 8023)	
(EPA 8024)	
(EPA 8025)	
(EPA 8026)	
(EPA 8027)	
(EPA 8028)	
(EPA 8029)	
(EPA 8030)	
(EPA 8031)	
(EPA 8032)	
(EPA 8033)	
(EPA 8034)	
(EPA 8035)	
(EPA 8036)	
(EPA 8037)	
(EPA 8038)	
(EPA 8039)	
(EPA 8040)	
(EPA 8041)	
(EPA 8042)	
(EPA 8043)	
(EPA 8044)	
(EPA 8045)	
(EPA 8046)	
(EPA 8047)	
(EPA 8048)	
(EPA 8049)	
(EPA 8050)	
(EPA 8051)	
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(EPA 8060)	
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(EPA 8091)	
(EPA 8092)	
(EPA 8093)	
(EPA 8094)	
(EPA 8095)	
(EPA 8096)	
(EPA 8097)	
(EPA 8098)	
(EPA 8099)	
(EPA 8100)	

LAB (starts the day received by the lab. if received by 4:30pm)

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (%)	BTEX	Chloro	Sample Comments									
F575	S	11/25/79	1315	21.5'	1	X	X	X										
F577			1310		X	X	X	X										
F578			1326		X	X	X	X										
F579			1330		X	X	X	X										
F580			1400		X	X	X	X										
F581		11/25/79	1340		X	X	X	X										
F582			1340		X	X	X	X										
F583			1315		X	X	X	X										
F584			1320		X	X	X	X										
F585			1325		X	X	X	X										

	Total	200.7 / 6010	200.8 / 6020:
BRCRA	13PPI	Texas 11 Al Sb As Ba Be B Cd Cl Cr Cs Cu Pb Mn Mo Ni Se Ag Ti U	1631 / 245.1 / 7470 / 7474 : Hg

[illegible]

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		11/10/2018			11/10/2018

[illegible][illegible]



Houston, TX (281) 240-4250 Dallas, TX (214) 922-0350 San Antonio, TX (210) 598-2334
Midland, TX (432) 794-8440 El Paso, TX (915) 655-3443 Lubbock, TX (806) 794-1798
McAllen, TX (361-362-7510) Phoenix, AZ (480-335-1950) Atlanta, GA (770) 443-8850 Tampa, FL (813)

Chain of Custody

Work Order No: 10411010

Project Manager:		Don Mohr	EM 10: (if different)	Kyle Little
Company Name:		L.T. Environmental, Inc., Permian office	Company Name:	XTO-Energy
Address:		3390 North A Street	Address:	
City, State Zip:		Midland, TX 79705	City, State Zip:	Corbitt NM
Phone:		432-704-5178	Email:	donmohr@ltenv.com kylelittle@xto.com

Work Order Comments	
Program: UST/ST ☐ PHP ☐ Brownfields ☐ EC ☐ Superfund ☐ State of Project: Reporting Level II ☐ Level III ☐ UST/UST ☐ RRP ☐ Level IV ☐ Deliverable ETD ☐ ADAPT ☐ Other ☐	

[illegible]

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (%)	BTEX	Chloro	Sample Comments
F386	1	11/2/91	1350	0.5'	1	X	X	X	Composite
F387			1335			X	X	X	
F388			1410			X	X	X	
F389			1400			X	X	X	
F390			1410			X	X	X	
F391			1420			X	X	X	
F392			1430			X	X	X	
F391			1440			X	X	X	

Total	200.7 / 6010	200.0 / 6020:
8RCRA, 13PPL Times 11	Al Sb As Ba B Ca Ca Cr Co Cu Fe Hg Mn Mo Ni N Se Ag Ti U	
TCIP / SPL P 5010 8RCRA	Sb As Ba B Ca Ca Cr Co Cu Fe Hg Mn Mo Ni N Se Ag Ti U	1631 / 245.1 / 7470 / 7471 Hg

Under Signature of this document and indorsements of samples constitutes a valid purchase order from retail company to Biorion. In abstract and substantiation, it assigns standard terms and conditions of purchase. Biorion will be liable only for the cost of supplies 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 Biorion. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Biorion, but not exceeding, three terms will be returned unless previously specified.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		12/21/19 6:55

[illegible]

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/27/2019 09:50:00 AM

Work Order #: 644618

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 11/27/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/27/2019

Analytical Report 644623

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CTB

012919277

02-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



02-DEC-19

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

Reference: XENCO Report No(s): **644623**
Ross Draw CTB
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 644623. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 644623 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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**Sample Cross Reference 644623****LT Environmental, Inc., Arvada, CO**

Ross Draw CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS66	S	11-23-19 11:00	0.5 ft	644623-001
FS67	S	11-23-19 11:01	0.5 ft	644623-002
FS68	S	11-23-19 11:05	0.5 ft	644623-003
FS69	S	11-23-19 11:06	0.5 ft	644623-004
FS70	S	11-23-19 11:10	0.5 ft	644623-005
FS71	S	11-23-19 11:12	0.5 ft	644623-006
FS72	S	11-23-19 11:13	0.5 ft	644623-007



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CTB

Project ID: 012919277
Work Order Number(s): 644623

Report Date: 02-DEC-19
Date Received: 11/27/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109041 BTEX by EPA 8021B

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

Batch: LBA-3109059 TPH by SW8015 Mod

Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 644618-014 SD.

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 644623-002.

Certificate of Analysis Summary 644623



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CTB

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Nov-27-19 09:50 am

Report Date: 02-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644623-001	644623-002	644623-003	644623-004	644623-005	644623-006
	<i>Field Id:</i>	FS66	FS67	FS68	FS69	FS70	FS71
	<i>Depth:</i>	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-23-19 11:00	Nov-23-19 11:01	Nov-23-19 11:05	Nov-23-19 11:06	Nov-23-19 11:10	Nov-23-19 11:12
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-01-19 11:11	Dec-01-19 11:11	Dec-01-19 11:11	Dec-01-19 11:11	Dec-01-19 11:11	Dec-01-19 11:11
	<i>Analyzed:</i>	Dec-01-19 18:58	Dec-01-19 19:17	Dec-01-19 19:36	Dec-01-19 19:55	Dec-01-19 20:14	Dec-01-19 20:33
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399	<0.00401 0.00401	<0.00402 0.00402	<0.00403 0.00403	<0.00402 0.00402	<0.00399 0.00399
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11	Nov-30-19 17:11
	<i>Analyzed:</i>	Nov-30-19 19:01	Nov-30-19 19:07	Nov-30-19 19:12	Nov-30-19 19:18	Nov-30-19 19:35	Nov-30-19 19:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		2070 99.4	1890 101	2740 101	2270 101	4210 99.8	4670 99.4
TPH by SW8015 Mod	<i>Extracted:</i>	Nov-27-19 17:00	Nov-27-19 17:00	Nov-27-19 17:00	Nov-27-19 17:00	Nov-27-19 17:00	Nov-27-19 17:00
	<i>Analyzed:</i>	Nov-28-19 01:39	Nov-28-19 01:39	Nov-28-19 01:59	Nov-28-19 01:59	Nov-28-19 02:19	Nov-28-19 02:39
	<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	<50.0 50.0	<50.2 50.2	<50.2 50.2	<49.9 49.9
Diesel Range Organics (DRO)		<49.8 49.8	<50.1 50.1	<50.0 50.0	<50.2 50.2	<50.2 50.2	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.1 50.1	<50.0 50.0	<50.2 50.2	<50.2 50.2	<49.9 49.9
Total GRO-DRO		<49.8 49.8	<50.1 50.1	<50.0 50.0	<50.2 50.2	<50.2 50.2	<49.9 49.9
Total TPH		<49.8 49.8	<50.1 50.1	<50.0 50.0	<50.2 50.2	<50.2 50.2	<49.9 49.9

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644623



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CTB

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Nov-27-19 09:50 am

Report Date: 02-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	644623-007					
	Field Id:	FS72					
	Depth:	0.5- ft					
	Matrix:	SOIL					
	Sampled:	Nov-23-19 11:13					
BTEX by EPA 8021B	Extracted:	Dec-01-19 11:11					
	Analyzed:	Dec-01-19 20:52					
	Units/RL:	mg/kg RL					
Benzene		<0.00199 0.00199					
Toluene		<0.00199 0.00199					
Ethylbenzene		<0.00199 0.00199					
m,p-Xylenes		<0.00398 0.00398					
o-Xylene		<0.00199 0.00199					
Total Xylenes		<0.00199 0.00199					
Total BTEX		<0.00199 0.00199					
Chloride by EPA 300	Extracted:	Nov-30-19 17:11					
	Analyzed:	Nov-30-19 19:57					
	Units/RL:	mg/kg RL					
Chloride		4490 101					
TPH by SW8015 Mod	Extracted:	Nov-27-19 17:00					
	Analyzed:	Nov-28-19 02:39					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8					
Diesel Range Organics (DRO)		<49.8 49.8					
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8					
Total GRO-DRO		<49.8 49.8					
Total TPH		<49.8 49.8					

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XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS66** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644623-001 Date Collected: 11.23.19 11.00 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2070	99.4	mg/kg	11.30.19 19.01		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.28.19 01.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.28.19 01.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.28.19 01.39	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.28.19 01.39	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.28.19 01.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	134	%	70-135	11.28.19 01.39	
o-Terphenyl	84-15-1	130	%	70-135	11.28.19 01.39	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS66**
Lab Sample Id: 644623-001

Matrix: Soil
Date Collected: 11.23.19 11.00

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.01.19 11.11

Basis: Wet Weight

Seq Number: 3109041

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.01.19 18.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.01.19 18.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.01.19 18.58	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.01.19 18.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.01.19 18.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.01.19 18.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.01.19 18.58	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.01.19 18.58		
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.01.19 18.58		



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS67** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644623-002 Date Collected: 11.23.19 11.01 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1890	101	mg/kg	11.30.19 19.07		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.28.19 01.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.28.19 01.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.28.19 01.39	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.28.19 01.39	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.28.19 01.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	132	%	70-135	11.28.19 01.39	
o-Terphenyl	84-15-1	139	%	70-135	11.28.19 01.39	**



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS67**
Lab Sample Id: 644623-002

Matrix: Soil
Date Collected: 11.23.19 11.01

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.01.19 11.11

Basis: Wet Weight

Seq Number: 3109041

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.01.19 19.17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.01.19 19.17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.01.19 19.17	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.01.19 19.17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.01.19 19.17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.01.19 19.17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.01.19 19.17	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	123	%	70-130	12.01.19 19.17		
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.01.19 19.17		



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS68** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644623-003 Date Collected: 11.23.19 11.05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2740	101	mg/kg	11.30.19 19.12		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.28.19 01.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.28.19 01.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.28.19 01.59	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.28.19 01.59	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.28.19 01.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	11.28.19 01.59	
o-Terphenyl	84-15-1	129	%	70-135	11.28.19 01.59	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS68**
Lab Sample Id: 644623-003

Matrix: Soil
Date Collected: 11.23.19 11.05

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.01.19 11.11

Basis: Wet Weight

Seq Number: 3109041

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.01.19 19.36	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.01.19 19.36	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.01.19 19.36	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.01.19 19.36	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.01.19 19.36	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.01.19 19.36	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.01.19 19.36	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101		%	70-130	12.01.19 19.36	
4-Bromofluorobenzene	460-00-4	118		%	70-130	12.01.19 19.36	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS69** Matrix: Soil Date Received: 11.27.19 09.50
 Lab Sample Id: 644623-004 Date Collected: 11.23.19 11.06 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 11.30.19 17.11 Basis: Wet Weight
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2270	101	mg/kg	11.30.19 19.18		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 11.27.19 17.00 Basis: Wet Weight
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.28.19 01.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.28.19 01.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.28.19 01.59	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.28.19 01.59	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.28.19 01.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	11.28.19 01.59	
o-Terphenyl	84-15-1	119	%	70-135	11.28.19 01.59	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS69**
Lab Sample Id: 644623-004

Matrix: Soil
Date Collected: 11.23.19 11.06

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.01.19 11.11

Basis: Wet Weight

Seq Number: 3109041

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.01.19 19.55	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.01.19 19.55	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.01.19 19.55	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.01.19 19.55	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.01.19 19.55	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.01.19 19.55	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.01.19 19.55	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	122	%	70-130	12.01.19 19.55		
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.01.19 19.55		



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS70**
Lab Sample Id: 644623-005

Matrix: Soil
Date Collected: 11.23.19 11.10

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109022

Date Prep: 11.30.19 17.11

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4210	99.8	mg/kg	11.30.19 19.35		10

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109059

Date Prep: 11.27.19 17.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.28.19 02.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.28.19 02.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.28.19 02.19	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.28.19 02.19	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.28.19 02.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	11.28.19 02.19	
o-Terphenyl	84-15-1	128	%	70-135	11.28.19 02.19	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS70**
Lab Sample Id: 644623-005

Matrix: Soil
Date Collected: 11.23.19 11.10

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.01.19 11.11

Basis: Wet Weight

Seq Number: 3109041

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.01.19 20.14	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.01.19 20.14	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.01.19 20.14	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.01.19 20.14	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.01.19 20.14	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.01.19 20.14	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.01.19 20.14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.01.19 20.14		
4-Bromofluorobenzene	460-00-4	124	%	70-130	12.01.19 20.14		



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS71**
Lab Sample Id: 644623-006

Matrix: Soil
Date Collected: 11.23.19 11.12

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109022

Date Prep: 11.30.19 17.11

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4670	99.4	mg/kg	11.30.19 19.51		10

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109059

Date Prep: 11.27.19 17.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.28.19 02.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.28.19 02.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.28.19 02.39	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.28.19 02.39	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.28.19 02.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	11.28.19 02.39	
o-Terphenyl	84-15-1	125	%	70-135	11.28.19 02.39	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS71**
Lab Sample Id: 644623-006

Matrix: Soil
Date Collected: 11.23.19 11.12

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.01.19 11.11

Basis: Wet Weight

Seq Number: 3109041

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.01.19 20.33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.01.19 20.33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.01.19 20.33	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.01.19 20.33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.01.19 20.33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.01.19 20.33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.01.19 20.33	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104		%	70-130	12.01.19 20.33	
4-Bromofluorobenzene	460-00-4	120		%	70-130	12.01.19 20.33	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS72** Matrix: **Soil** Date Received: 11.27.19 09.50
 Lab Sample Id: 644623-007 Date Collected: 11.23.19 11.13 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 11.30.19 17.11 Basis: **Wet Weight**
 Seq Number: 3109022

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4490	101	mg/kg	11.30.19 19.57		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 11.27.19 17.00 Basis: **Wet Weight**
 Seq Number: 3109059

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.28.19 02.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.28.19 02.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.28.19 02.39	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.28.19 02.39	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.28.19 02.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	11.28.19 02.39	
o-Terphenyl	84-15-1	122	%	70-135	11.28.19 02.39	



Certificate of Analytical Results 644623

LT Environmental, Inc., Arvada, CO

Ross Draw CTB

Sample Id: **FS72**
Lab Sample Id: 644623-007

Matrix: Soil
Date Collected: 11.23.19 11.13

Date Received: 11.27.19 09.50
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.01.19 11.11

Basis: Wet Weight

Seq Number: 3109041

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.01.19 20.52	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.01.19 20.52	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.01.19 20.52	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.01.19 20.52	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.01.19 20.52	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.01.19 20.52	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.01.19 20.52	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119		%	70-130	12.01.19 20.52	
1,4-Difluorobenzene	540-36-3	101		%	70-130	12.01.19 20.52	



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.

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.

Ross Draw CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3109022

MB Sample Id: 7691386-1-BLK

Matrix: Solid

LCS Sample Id: 7691386-1-BKS

Prep Method: E300P

Date Prep: 11.30.19

LCSD Sample Id: 7691386-1-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	268	107	262	105	90-110	2	20	mg/kg	11.30.19 17:32	

Analytical Method: Chloride by EPA 300

Seq Number: 3109022

Parent Sample Id: 644618-012

Matrix: Soil

MS Sample Id: 644618-012 S

Prep Method: E300P

Date Prep: 11.30.19

MSD Sample Id: 644618-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	55.3	202	237	90	228	86	90-110	4	20	mg/kg	11.30.19 18:05	X

Analytical Method: Chloride by EPA 300

Seq Number: 3109022

Parent Sample Id: 644623-004

Matrix: Soil

MS Sample Id: 644623-004 S

Prep Method: E300P

Date Prep: 11.30.19

MSD Sample Id: 644623-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2270	2010	4430	107	4440	109	90-110	0	20	mg/kg	11.30.19 19:24	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109059

MB Sample Id: 7691372-1-BLK

Matrix: Solid

LCS Sample Id: 7691372-1-BKS

Prep Method: SW8015P

Date Prep: 11.27.19

LCSD Sample Id: 7691372-1-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	927	93	963	96	70-135	4	35	mg/kg	11.28.19 00:01	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1110	111	70-135	3	35	mg/kg	11.28.19 00:01	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	121		123		133		70-135	%	11.28.19 00:01			
o-Terphenyl	126		132		130		70-135	%	11.28.19 00:01			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109059

Matrix: Solid

MB Sample Id: 7691372-1-BLK

Prep Method: SW8015P

Date Prep: 11.27.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.28.19 00:01	

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



LT Environmental, Inc.

Ross Draw CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109059

Parent Sample Id: 644618-014

Matrix: Soil

MS Sample Id: 644618-014 S

Prep Method: SW8015P

Date Prep: 11.27.19

MSD Sample Id: 644618-014 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)	<50.0	999	1080	108	945	95	70-135	13	35	mg/kg	11.28.19 00:40	
Diesel Range Organics (DRO)	<50.0	999	1310	131	1190	119	70-135	10	35	mg/kg	11.28.19 00:40	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		137	**	70-135	%	11.28.19 00:40
o-Terphenyl	130		133		70-135	%	11.28.19 00:40

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109041

MB Sample Id: 7691381-1-BLK

Matrix: Solid

LCS Sample Id: 7691381-1-BKS

Prep Method: SW5030B

Date Prep: 12.01.19

LCSD Sample Id: 7691381-1-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	0.0912	91	0.0895	90	70-130	2	35	mg/kg	12.01.19 17:15	
Toluene	<0.00200	0.100	0.0939	94	0.0918	92	70-130	2	35	mg/kg	12.01.19 17:15	
Ethylbenzene	<0.00200	0.100	0.0939	94	0.0915	92	71-129	3	35	mg/kg	12.01.19 17:15	
m,p-Xylenes	<0.00400	0.200	0.200	100	0.194	97	70-135	3	35	mg/kg	12.01.19 17:15	
o-Xylene	<0.00200	0.100	0.101	101	0.0983	98	71-133	3	35	mg/kg	12.01.19 17:15	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		102		101		70-130	%	12.01.19 17:15
4-Bromofluorobenzene	106		116		114		70-130	%	12.01.19 17:15

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109041

Parent Sample Id: 644623-001

Matrix: Soil

MS Sample Id: 644623-001 S

Prep Method: SW5030B

Date Prep: 12.01.19

MSD Sample Id: 644623-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0869	88	0.0827	83	70-130	5	35	mg/kg	12.01.19 17:54	
Toluene	<0.00198	0.0992	0.0875	88	0.0835	84	70-130	5	35	mg/kg	12.01.19 17:54	
Ethylbenzene	<0.00198	0.0992	0.0853	86	0.0814	82	71-129	5	35	mg/kg	12.01.19 17:54	
m,p-Xylenes	<0.00397	0.198	0.180	91	0.173	87	70-135	4	35	mg/kg	12.01.19 17:54	
o-Xylene	<0.00198	0.0992	0.0916	92	0.0881	89	71-133	4	35	mg/kg	12.01.19 17:54	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		104		70-130	%	12.01.19 17:54
4-Bromofluorobenzene	119		122		70-130	%	12.01.19 17:54

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

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

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) 662-1220; San Antonio, TX (214) 606-3324
 William, TX (409-794-5440); El Paso, TX (915) 881-2643; Lubbock, TX (806) 794-1285
 Houston, TX (281-380-7550); Phoenix, AZ (480-355-0009); Atlanta, GA (770-445-0850); Tampa, FL (813)

Work Order No: 27/27

Page 1 of 1

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Chain of Custody

Project Manager:		Don Mow	Bill to: (if different)	King (MSP)
Company Name:	L1 Environmental, Inc., Permit office	Company Name	XTO-Energy	
Address:	3300 North A Street	Address		
City, State ZIP:	Middland, TX 79705	City, State ZIP	Chattahoochee, GA	
Phone:	432.704.5178	Email:	daniel.gallagher@xtoenergy.com	

Work Order Comments	
Program: UST/IST ☐ FRP ☐ Brownfields ☐ RC ☐ Superfund ☐ State of Project: Reporting Level II ☐ Level III ☐ STATUS ☐ FRP ☐ Level IV ☐ Deliverables: EDD ☐ ADAPT ☐ Other:	Work Order Notes

[illegible]

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Num	TPH	BTEX	Chlor	Corrections
FS66	S	11/2/14	1100	0.5'	1	X	X	X	
FS67			1100			X	X	X	
FS68			1105			X	X	X	
FS69			1106			X	X	X	
FS70			1110			X	X	X	
FS71			1112			X	X	X	
FS72			1115			X	X	X	

Total 200.7 / 6010	200.8 / 6020:

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

The figures in this document and scheduling of various costs are not intended to represent the actual costs of the project. The figures are based on the best available information and are subject to change. The figures are not intended to represent the actual costs of the project. The figures are not intended to represent the actual costs of the project. The figures are not intended to represent the actual costs of the project.

Rollingquished by: (Signature)

Received by (Signature) _____

District 11

Reinforced by (signature)

Accepted by: 10/11/2014

$$(4.7) \quad \alpha$$

1831 / 245.1 / 7470 / 74

[illegible] 2.147×10^{-5}



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 11/27/2019 09:50:00 AM

Work Order #: 644623

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 11/27/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/27/2019

Analytical Report 644775

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

03-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



03-DEC-19

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

Reference: XENCO Report No(s): **644775**
Ross Draw CDP
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 644775. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 644775 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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**Sample Cross Reference 644775****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01A	S	12-02-19 08:40	1 ft	644775-001
FS02A	S	12-02-19 08:45	1 ft	644775-002
FS03A	S	12-02-19 09:15	1 ft	644775-003
FS04A	S	12-02-19 09:20	1 ft	644775-004
FS15A	S	12-02-19 09:30	1 ft	644775-005
FS16A	S	12-02-19 09:35	1 ft	644775-006
FS17A	S	12-02-19 09:40	1 ft	644775-007



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 644775

Report Date: 03-DEC-19
Date Received: 12/02/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109146 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 644679-001 S, 644775-001.

Batch: LBA-3109160 BTEX by EPA 8021B

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



Certificate of Analysis Summary 644775

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-02-19 02:05 pm

Report Date: 03-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644775-001	644775-002	644775-003	644775-004	644775-005	644775-006
	<i>Field Id:</i>	FS01A	FS02A	FS03A	FS04A	FS15A	FS16A
	<i>Depth:</i>	1- ft	1- ft	1- ft	1- ft	1- ft	1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-02-19 08:40	Dec-02-19 08:45	Dec-02-19 09:15	Dec-02-19 09:20	Dec-02-19 09:30	Dec-02-19 09:35
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00
	<i>Analyzed:</i>	Dec-03-19 02:55	Dec-03-19 03:14	Dec-03-19 03:33	Dec-03-19 03:52	Dec-03-19 04:11	Dec-03-19 04:31
	<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	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198
Toluene		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198
Ethylbenzene		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198
m,p-Xylenes		<0.00395 0.00395	<0.00395 0.00395	<0.00399 0.00399	<0.00397 0.00397	<0.00395 0.00395	<0.00397 0.00397
o-Xylene		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198
Total Xylenes		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198
Total BTEX		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00	Dec-02-19 16:00
	<i>Analyzed:</i>	Dec-02-19 19:49	Dec-02-19 19:55	Dec-02-19 20:02	Dec-02-19 20:09	Dec-02-19 20:16	Dec-02-19 20:23
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		39.2 9.98	434 9.92	110 9.90	86.3 10.0	537 D 49.4	560 D 49.9
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-02-19 17:00	Dec-02-19 17:00	Dec-02-19 17:00	Dec-02-19 17:00	Dec-02-19 17:00	Dec-02-19 17:00
	<i>Analyzed:</i>	Dec-02-19 22:11	Dec-02-19 22:11	Dec-02-19 22:31	Dec-02-19 22:31	Dec-02-19 22:51	Dec-02-19 22:51
	<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)		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2	<49.9 49.9	<49.8 49.8
Diesel Range Organics (DRO)		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2	<49.9 49.9	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2	<49.9 49.9	<49.8 49.8
Total GRO-DRO		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2	<49.9 49.9	<49.8 49.8
Total TPH		<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2	<49.9 49.9	<49.8 49.8

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 644775



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-02-19 02:05 pm

Report Date: 03-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	644775-007					
	Field Id:	FS17A					
	Depth:	1- ft					
	Matrix:	SOIL					
	Sampled:	Dec-02-19 09:40					
BTEX by EPA 8021B	Extracted:	Dec-02-19 16:00					
	Analyzed:	Dec-03-19 04:50					
	Units/RL:	mg/kg RL					
Benzene		<0.00199 0.00199					
Toluene		<0.00199 0.00199					
Ethylbenzene		<0.00199 0.00199					
m,p-Xylenes		<0.00398 0.00398					
o-Xylene		<0.00199 0.00199					
Total Xylenes		<0.00199 0.00199					
Total BTEX		<0.00199 0.00199					
Chloride by EPA 300	Extracted:	Dec-02-19 16:00					
	Analyzed:	Dec-02-19 20:30					
	Units/RL:	mg/kg RL					
Chloride		247 9.92					
TPH by SW8015 Mod	Extracted:	Dec-02-19 17:00					
	Analyzed:	Dec-02-19 23:10					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3					
Diesel Range Organics (DRO)		<50.3 50.3					
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3					
Total GRO-DRO		<50.3 50.3					
Total TPH		<50.3 50.3					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS01A** Matrix: Soil Date Received: 12.02.19 14.05
 Lab Sample Id: 644775-001 Date Collected: 12.02.19 08.40 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.02.19 16.00 Basis: Wet Weight
 Seq Number: 3109171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.2	9.98	mg/kg	12.02.19 19.49		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.02.19 17.00 Basis: Wet Weight
 Seq Number: 3109146

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.02.19 22.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.02.19 22.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.02.19 22.11	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.02.19 22.11	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.02.19 22.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	131	%	70-135	12.02.19 22.11	
o-Terphenyl	84-15-1	136	%	70-135	12.02.19 22.11	**



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS01A**
 Lab Sample Id: 644775-001

Matrix: Soil
 Date Collected: 12.02.19 08.40

Date Received: 12.02.19 14.05
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.02.19 16.00

Basis: Wet Weight

Seq Number: 3109160

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.03.19 02.55	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.03.19 02.55	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.03.19 02.55	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	12.03.19 02.55	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.03.19 02.55	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.03.19 02.55	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.03.19 02.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	12.03.19 02.55		
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.03.19 02.55		



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS02A** Matrix: Soil Date Received: 12.02.19 14.05
 Lab Sample Id: 644775-002 Date Collected: 12.02.19 08.45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.02.19 16.00 Basis: Wet Weight
 Seq Number: 3109171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	434	9.92	mg/kg	12.02.19 19.55		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.02.19 17.00 Basis: Wet Weight
 Seq Number: 3109146

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.02.19 22.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.02.19 22.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.02.19 22.11	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.02.19 22.11	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.02.19 22.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.02.19 22.11	
o-Terphenyl	84-15-1	111	%	70-135	12.02.19 22.11	



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS02A**
 Lab Sample Id: 644775-002

Matrix: Soil
 Date Collected: 12.02.19 08.45

Date Received: 12.02.19 14.05
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.02.19 16.00

Basis: Wet Weight

Seq Number: 3109160

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.03.19 03.14	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.03.19 03.14	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.03.19 03.14	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	12.03.19 03.14	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.03.19 03.14	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.03.19 03.14	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.03.19 03.14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	118	%	70-130	12.03.19 03.14		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.03.19 03.14		



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS03A** Matrix: Soil Date Received: 12.02.19 14.05
 Lab Sample Id: 644775-003 Date Collected: 12.02.19 09.15 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.02.19 16.00 Basis: Wet Weight
 Seq Number: 3109171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	110	9.90	mg/kg	12.02.19 20.02		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.02.19 17.00 Basis: Wet Weight
 Seq Number: 3109146

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.02.19 22.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.02.19 22.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.02.19 22.31	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.02.19 22.31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.02.19 22.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	12.02.19 22.31	
o-Terphenyl	84-15-1	114	%	70-135	12.02.19 22.31	



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS03A**
 Lab Sample Id: 644775-003

Matrix: Soil
 Date Collected: 12.02.19 09.15

Date Received: 12.02.19 14.05
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.02.19 16.00

Basis: Wet Weight

Seq Number: 3109160

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.03.19 03.33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.03.19 03.33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.03.19 03.33	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.03.19 03.33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.03.19 03.33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.03.19 03.33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.03.19 03.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.03.19 03.33		
4-Bromofluorobenzene	460-00-4	117	%	70-130	12.03.19 03.33		



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS04A** Matrix: Soil Date Received: 12.02.19 14.05
 Lab Sample Id: 644775-004 Date Collected: 12.02.19 09.20 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.02.19 16.00 Basis: Wet Weight
 Seq Number: 3109171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	86.3	10.0	mg/kg	12.02.19 20.09		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.02.19 17.00 Basis: Wet Weight
 Seq Number: 3109146

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.02.19 22.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.02.19 22.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.02.19 22.31	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.02.19 22.31	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.02.19 22.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	12.02.19 22.31	
o-Terphenyl	84-15-1	109	%	70-135	12.02.19 22.31	



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS04A**
 Lab Sample Id: 644775-004

Matrix: Soil
 Date Collected: 12.02.19 09.20

Date Received: 12.02.19 14.05
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.02.19 16.00

Basis: Wet Weight

Seq Number: 3109160

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.03.19 03.52	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.03.19 03.52	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.03.19 03.52	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.03.19 03.52	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.03.19 03.52	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.03.19 03.52	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.03.19 03.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.03.19 03.52		
4-Bromofluorobenzene	460-00-4	123	%	70-130	12.03.19 03.52		



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS15A**
Lab Sample Id: 644775-005

Matrix: Soil
Date Collected: 12.02.19 09.30

Date Received: 12.02.19 14.05
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109171

Date Prep: 12.02.19 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	537	49.4	mg/kg	12.03.19 11.24	D	5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109146

Date Prep: 12.02.19 17.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.02.19 22.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.02.19 22.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.02.19 22.51	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.02.19 22.51	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.02.19 22.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	12.02.19 22.51	
o-Terphenyl	84-15-1	117	%	70-135	12.02.19 22.51	



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS15A**
 Lab Sample Id: 644775-005

Matrix: Soil
 Date Collected: 12.02.19 09.30

Date Received: 12.02.19 14.05
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.02.19 16.00

Basis: Wet Weight

Seq Number: 3109160

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.03.19 04.11	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.03.19 04.11	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.03.19 04.11	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	12.03.19 04.11	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.03.19 04.11	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.03.19 04.11	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.03.19 04.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	12.03.19 04.11		
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.03.19 04.11		



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS16A**
Lab Sample Id: 644775-006

Matrix: Soil
Date Collected: 12.02.19 09.35

Date Received: 12.02.19 14.05
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109171

Date Prep: 12.02.19 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	560	49.9	mg/kg	12.03.19 11.30	D	5

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109146

Date Prep: 12.02.19 17.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.02.19 22.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.02.19 22.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.02.19 22.51	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.02.19 22.51	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.02.19 22.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.02.19 22.51	
o-Terphenyl	84-15-1	109	%	70-135	12.02.19 22.51	



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS16A**
 Lab Sample Id: 644775-006

Matrix: Soil
 Date Collected: 12.02.19 09.35

Date Received: 12.02.19 14.05
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.02.19 16.00

Basis: Wet Weight

Seq Number: 3109160

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.03.19 04.31	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.03.19 04.31	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.03.19 04.31	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.03.19 04.31	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.03.19 04.31	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.03.19 04.31	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.03.19 04.31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	123	%	70-130	12.03.19 04.31		
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.03.19 04.31		



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS17A** Matrix: Soil Date Received: 12.02.19 14.05
 Lab Sample Id: 644775-007 Date Collected: 12.02.19 09.40 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.02.19 16.00 Basis: Wet Weight
 Seq Number: 3109171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	247	9.92	mg/kg	12.02.19 20.30		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.02.19 17.00 Basis: Wet Weight
 Seq Number: 3109146

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.02.19 23.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.02.19 23.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.02.19 23.10	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.02.19 23.10	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.02.19 23.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.02.19 23.10	
o-Terphenyl	84-15-1	115	%	70-135	12.02.19 23.10	



Certificate of Analytical Results 644775

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS17A**
 Lab Sample Id: 644775-007

Matrix: Soil
 Date Collected: 12.02.19 09.40

Date Received: 12.02.19 14.05
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.02.19 16.00

Basis: Wet Weight

Seq Number: 3109160

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.03.19 04.50	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.03.19 04.50	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.03.19 04.50	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.03.19 04.50	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.03.19 04.50	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.03.19 04.50	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.03.19 04.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.03.19 04.50		
4-Bromofluorobenzene	460-00-4	123	%	70-130	12.03.19 04.50		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109171

MB Sample Id: 7691461-1-BLK

Matrix: Solid

LCS Sample Id: 7691461-1-BKS

Prep Method: E300P

Date Prep: 12.02.19

LCSD Sample Id: 7691461-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	262	105	264	106	90-110	1	20	mg/kg	12.02.19 15:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3109171

Parent Sample Id: 644679-001

Matrix: Soil

MS Sample Id: 644679-001 S

Prep Method: E300P

Date Prep: 12.02.19

MSD Sample Id: 644679-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.1	201	220	109	219	108	90-110	0	20	mg/kg	12.02.19 15:58	

Analytical Method: Chloride by EPA 300

Seq Number: 3109171

Parent Sample Id: 644772-001

Matrix: Soil

MS Sample Id: 644772-001 S

Prep Method: E300P

Date Prep: 12.02.19

MSD Sample Id: 644772-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1440	247	14600	5328	14600	5243	90-110	0	20	mg/kg	12.03.19 11:05	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109146

MB Sample Id: 7691483-1-BLK

Matrix: Solid

LCS Sample Id: 7691483-1-BKS

Prep Method: SW8015P

Date Prep: 12.02.19

LCSD Sample Id: 7691483-1-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	879	88	976	98	70-135	10	35	mg/kg	12.02.19 19:14	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	1140	114	70-135	6	35	mg/kg	12.02.19 19:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		120		132		70-135	%	12.02.19 19:14
o-Terphenyl	120		122		131		70-135	%	12.02.19 19:14

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109146

Matrix: Solid

MB Sample Id: 7691483-1-BLK

Prep Method: SW8015P

Date Prep: 12.02.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.02.19 19:14	

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

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

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109146

Parent Sample Id: 644679-001

Matrix: Soil

MS Sample Id: 644679-001 S

Prep Method: SW8015P

Date Prep: 12.02.19

MSD Sample Id: 644679-001 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)	<50.0	1000	983	98	898	89	70-135	9	35	mg/kg	12.03.19 09:09	
Diesel Range Organics (DRO)	<50.0	1000	1250	125	1100	109	70-135	13	35	mg/kg	12.03.19 09:09	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		119		70-135	%	12.03.19 09:09
o-Terphenyl	136	**	125		70-135	%	12.03.19 09:09

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109160

MB Sample Id: 7691464-1-BLK

Matrix: Solid

LCS Sample Id: 7691464-1-BKS

Prep Method: SW5030B

Date Prep: 12.02.19

LCSD Sample Id: 7691464-1-BSO

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	0.0856	86	0.0885	89	70-130	3	35	mg/kg	12.02.19 21:17	
Toluene	<0.00200	0.100	0.0854	85	0.0908	91	70-130	6	35	mg/kg	12.02.19 21:17	
Ethylbenzene	<0.00200	0.100	0.0839	84	0.0901	90	71-129	7	35	mg/kg	12.02.19 21:17	
m,p-Xylenes	<0.00400	0.200	0.177	89	0.191	96	70-135	8	35	mg/kg	12.02.19 21:17	
o-Xylene	<0.00200	0.100	0.0900	90	0.0977	98	71-133	8	35	mg/kg	12.02.19 21:17	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		102		101		70-130	%	12.02.19 21:17
4-Bromofluorobenzene	108		114		114		70-130	%	12.02.19 21:17

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109160

Parent Sample Id: 644679-001

Matrix: Soil

MS Sample Id: 644679-001 S

Prep Method: SW5030B

Date Prep: 12.02.19

MSD Sample Id: 644679-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0836	83	0.0744	74	70-130	12	35	mg/kg	12.02.19 22:59	
Toluene	<0.00202	0.101	0.0847	84	0.0780	78	70-130	8	35	mg/kg	12.02.19 22:59	
Ethylbenzene	<0.00202	0.101	0.0843	83	0.0776	78	71-129	8	35	mg/kg	12.02.19 22:59	
m,p-Xylenes	<0.000760	0.202	0.178	88	0.165	82	70-135	8	35	mg/kg	12.02.19 22:59	
o-Xylene	<0.00202	0.101	0.0897	89	0.0853	85	71-133	5	35	mg/kg	12.02.19 22:59	

Surrogate

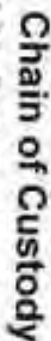
	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		98		70-130	%	12.02.19 22:59
4-Bromofluorobenzene	111		119		70-130	%	12.02.19 22:59

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



1042775

Heaton, TX (972) 240-4000 Dallas, TX (714) 902-0322 San Antonio, TX (214) 586-3556
Midland, TX (432) 704-3440 El Paso, TX (915) 595-3443 Lubbock, TX (806) 794-1298

THEODORE HALL (913-292-7256), Theophile AZ (480-355-0920), ALUMINA, S.A. (770-440-0000), T. J. JONES P.L.L.C. (214-225-2000)

Page 1 of 1

Work Order Comments	
Program: UST/ST	☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:	
Reporting Level II	☐ Level III ☐ UST/ST ☐ BAP ☐ Level IV ☐
Derivative ERO	☐ ADAPT ☐ OTHER

[illegible]

TAI starts the day, received by the

[illegible]

Total	200.7 / 6010	200.8 / 6020

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

6RCRA 13PIM Texas 11 Al Sb As Ba Be B Cd Cs Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SnO2 Na Sr Ti Sn U V Zn
 TCLP / SPLP 6010 6RCRA Sb As Be He Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
 10311/245.1/7470 / 14

1031 / 245.1 / 7470 / 7471 - Hg

service. Expense will be borne only for the cost of samples and shall not include any responsibility for any losses or expenses incurred by the client if such items are due to circumstances beyond the control of the client. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Korte, but not averaged. There items will be returned unless previously negotiated.

Requisitioned by (Signature)	Received by (Signature)	Date/Time	Reimbursement by (Signature)	Received by (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12/02/19 14:05			



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12/02/2019 02:05:00 PM

Work Order #: 644775

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 12/02/2019

Checklist reviewed by:

Jessica Kramer

Date: 12/03/2019

Analytical Report 644991

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

05-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



05-DEC-19

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

Reference: XENCO Report No(s): **644991**
Ross Draw CDP
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 644991. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 644991 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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Sample Cross Reference 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS41A	S	12-03-19 12:15	1 ft	644991-001
FS42A	S	12-03-19 12:10	1 ft	644991-002
FS107	S	12-03-19 16:40	0.5 ft	644991-003
FS50A	S	12-03-19 15:30	1 ft	644991-004



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 644991

Report Date: 05-DEC-19
Date Received: 12/04/2019

Sample receipt non conformance and comments:

None

Sample receipt non conformance and comments per sample:

None

Analytical non conformance and comments:

Batch: LBA-3109452 BTEX by EPA 8021B

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

Batch: LBA-3109453 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 644991-002.

Certificate of Analysis Summary 644991



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Dec-04-19 08:45 am

Report Date: 05-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644991-001	644991-002	644991-003	644991-004		
	<i>Field Id:</i>	FS41A	FS42A	FS107	FS50A		
	<i>Depth:</i>	1- ft	1- ft	0.5- ft	1- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Dec-03-19 12:15	Dec-03-19 12:10	Dec-03-19 16:40	Dec-03-19 15:30		
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-04-19 10:00	Dec-04-19 10:00	Dec-04-19 10:00	Dec-04-19 10:00		
	<i>Analyzed:</i>	Dec-04-19 17:49	Dec-04-19 18:08	Dec-04-19 18:27	Dec-04-19 18:47		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
m,p-Xylenes		<0.00398 0.00398	<0.00401 0.00401	<0.00401 0.00401	<0.00399 0.00399		
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200		
Chloride by EPA 300	<i>Extracted:</i>	Dec-04-19 13:00	Dec-04-19 13:00	Dec-04-19 13:00	Dec-04-19 13:00		
	<i>Analyzed:</i>	Dec-04-19 18:47	Dec-04-19 18:53	Dec-04-19 18:59	Dec-04-19 19:06		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		2290 99.2	570 100	381 100	294 100		
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-04-19 13:30	Dec-04-19 13:30	Dec-04-19 13:30	Dec-04-19 13:30		
	<i>Analyzed:</i>	Dec-04-19 18:55	Dec-04-19 19:15	Dec-04-19 19:15	Dec-04-19 19:34		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.3 50.3	<50.1 50.1	<50.0 50.0		
Diesel Range Organics (DRO)		<49.8 49.8	<50.3 50.3	<50.1 50.1	<50.0 50.0		
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.3 50.3	<50.1 50.1	<50.0 50.0		
Total GRO-DRO		<49.8 49.8	<50.3 50.3	<50.1 50.1	<50.0 50.0		
Total TPH		<49.8 49.8	<50.3 50.3	<50.1 50.1	<50.0 50.0		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
 The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
 XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
 Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Version: 1.9%

Jessica Kramer
Project Assistant



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS41A**
Lab Sample Id: 644991-001

Matrix: Soil
Date Collected: 12.03.19 12.15

Date Received: 12.04.19 08.45
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109466

Date Prep: 12.04.19 13.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2290	99.2	mg/kg	12.04.19 18.47		10

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109453

Date Prep: 12.04.19 13.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.04.19 18.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.04.19 18.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.04.19 18.55	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.04.19 18.55	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.04.19 18.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.04.19 18.55	
o-Terphenyl	84-15-1	114	%	70-135	12.04.19 18.55	



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS41A**
 Lab Sample Id: 644991-001

Matrix: Soil
 Date Collected: 12.03.19 12.15

Date Received: 12.04.19 08.45
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 10.00

Basis: Wet Weight

Seq Number: 3109452

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.04.19 17.49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.04.19 17.49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.04.19 17.49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.04.19 17.49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.04.19 17.49	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.04.19 17.49	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.04.19 17.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.04.19 17.49		
4-Bromofluorobenzene	460-00-4	123	%	70-130	12.04.19 17.49		



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS42A** Matrix: Soil Date Received: 12.04.19 08.45
 Lab Sample Id: 644991-002 Date Collected: 12.03.19 12.10 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.04.19 13.00 Basis: Wet Weight
 Seq Number: 3109466

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	570	100	mg/kg	12.04.19 18.53		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.04.19 13.30 Basis: Wet Weight
 Seq Number: 3109453

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.04.19 19.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.04.19 19.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.04.19 19.15	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.04.19 19.15	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.04.19 19.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-135	12.04.19 19.15	
o-Terphenyl	84-15-1	136	%	70-135	12.04.19 19.15	**



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS42A**
 Lab Sample Id: 644991-002

Matrix: Soil
 Date Collected: 12.03.19 12.10

Date Received: 12.04.19 08.45
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 10.00

Basis: Wet Weight

Seq Number: 3109452

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.19 18.08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.19 18.08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.19 18.08	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.04.19 18.08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.19 18.08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.04.19 18.08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.04.19 18.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	12.04.19 18.08		
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.04.19 18.08		



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS107**
 Lab Sample Id: 644991-003

Matrix: Soil
 Date Collected: 12.03.19 16.40

Date Received: 12.04.19 08.45
 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109466

Date Prep: 12.04.19 13.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	381	100	mg/kg	12.04.19 18.59		10

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109453

Date Prep: 12.04.19 13.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.04.19 19.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.04.19 19.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.04.19 19.15	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.04.19 19.15	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.04.19 19.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.04.19 19.15	
o-Terphenyl	84-15-1	115	%	70-135	12.04.19 19.15	



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS107**
 Lab Sample Id: 644991-003

Matrix: Soil
 Date Collected: 12.03.19 16.40

Date Received: 12.04.19 08.45
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 10.00

Basis: Wet Weight

Seq Number: 3109452

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.19 18.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.19 18.27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.19 18.27	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.04.19 18.27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.19 18.27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.04.19 18.27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.04.19 18.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	124	%	70-130	12.04.19 18.27		
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.04.19 18.27		



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS50A** Matrix: Soil Date Received: 12.04.19 08.45
 Lab Sample Id: 644991-004 Date Collected: 12.03.19 15.30 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.04.19 13.00 Basis: Wet Weight
 Seq Number: 3109466

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	294	100	mg/kg	12.04.19 19.06		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.04.19 13.30 Basis: Wet Weight
 Seq Number: 3109453

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.19 19.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.04.19 19.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.19 19.34	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.04.19 19.34	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.04.19 19.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	12.04.19 19.34	
o-Terphenyl	84-15-1	123	%	70-135	12.04.19 19.34	



Certificate of Analytical Results 644991

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS50A**
 Lab Sample Id: 644991-004

Matrix: Soil
 Date Collected: 12.03.19 15.30

Date Received: 12.04.19 08.45
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 10.00

Basis: Wet Weight

Seq Number: 3109452

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.19 18.47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.19 18.47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.19 18.47	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.04.19 18.47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.19 18.47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.04.19 18.47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.04.19 18.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.04.19 18.47		
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.04.19 18.47		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109466

MB Sample Id: 7691688-1-BLK

Matrix: Solid

LCS Sample Id: 7691688-1-BKS

Prep Method: E300P

Date Prep: 12.04.19

LCSD Sample Id: 7691688-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	262	105	266	106	90-110	2	20	mg/kg	12.04.19 15:56	

Analytical Method: Chloride by EPA 300

Seq Number: 3109466

Parent Sample Id: 644979-001

Matrix: Soil

MS Sample Id: 644979-001 S

Prep Method: E300P

Date Prep: 12.04.19

MSD Sample Id: 644979-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.5	202	219	103	217	103	90-110	1	20	mg/kg	12.04.19 16:34	

Analytical Method: Chloride by EPA 300

Seq Number: 3109466

Parent Sample Id: 644985-005

Matrix: Soil

MS Sample Id: 644985-005 S

Prep Method: E300P

Date Prep: 12.04.19

MSD Sample Id: 644985-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	942	198	1140	100	1160	109	90-110	2	20	mg/kg	12.04.19 17:57	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109453

MB Sample Id: 7691711-1-BLK

Matrix: Solid

LCS Sample Id: 7691711-1-BKS

Prep Method: SW8015P

Date Prep: 12.04.19

LCSD Sample Id: 7691711-1-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	914	91	940	94	70-135	3	35	mg/kg	12.04.19 15:37	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1140	114	70-135	9	35	mg/kg	12.04.19 15:37	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		124		130		70-135	%	12.04.19 15:37
o-Terphenyl	108		123		128		70-135	%	12.04.19 15:37

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109453

Matrix: Solid

MB Sample Id: 7691711-1-BLK

Prep Method: SW8015P

Date Prep: 12.04.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.04.19 15:17	

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

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

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109453

Parent Sample Id: 644983-001

Matrix: Soil

MS Sample Id: 644983-001 S

Prep Method: SW8015P

Date Prep: 12.04.19

MSD Sample Id: 644983-001 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	902	90	916	91	70-135	2	35	mg/kg	12.04.19 15:57	
Diesel Range Organics (DRO)	62.4	1000	1090	103	1080	101	70-135	1	35	mg/kg	12.04.19 15:57	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		126		70-135	%	12.04.19 15:57
o-Terphenyl	132		126		70-135	%	12.04.19 15:57

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109452

MB Sample Id: 7691694-1-BLK

Matrix: Solid

LCS Sample Id: 7691694-1-BKS

Prep Method: SW5030B

Date Prep: 12.04.19

LCSD Sample Id: 7691694-1-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	0.0892	89	0.0958	96	70-130	7	35	mg/kg	12.04.19 10:39	
Toluene	<0.00200	0.100	0.0913	91	0.0974	97	70-130	6	35	mg/kg	12.04.19 10:39	
Ethylbenzene	<0.00200	0.100	0.0913	91	0.0970	97	71-129	6	35	mg/kg	12.04.19 10:39	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.205	103	70-135	6	35	mg/kg	12.04.19 10:39	
o-Xylene	<0.00200	0.100	0.0970	97	0.103	103	71-133	6	35	mg/kg	12.04.19 10:39	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		102		102		70-130	%	12.04.19 10:39
4-Bromofluorobenzene	109		115		115		70-130	%	12.04.19 10:39

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109452

Parent Sample Id: 644979-001

Matrix: Soil

MS Sample Id: 644979-001 S

Prep Method: SW5030B

Date Prep: 12.04.19

MSD Sample Id: 644979-001 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	0.0903	90	0.0737	74	70-130	20	35	mg/kg	12.04.19 11:18	
Toluene	<0.00200	0.100	0.0910	91	0.0740	74	70-130	21	35	mg/kg	12.04.19 11:18	
Ethylbenzene	<0.00200	0.100	0.0904	90	0.0720	72	71-129	23	35	mg/kg	12.04.19 11:18	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.154	77	70-135	22	35	mg/kg	12.04.19 11:18	
o-Xylene	<0.00200	0.100	0.0963	96	0.0760	76	71-133	24	35	mg/kg	12.04.19 11:18	

Surrogate

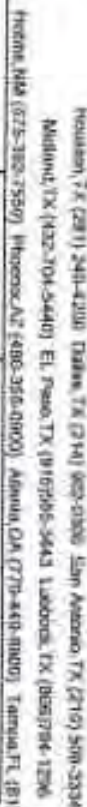
	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		105		70-130	%	12.04.19 11:18
4-Bromofluorobenzene	119		118		70-130	%	12.04.19 11:18

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: 099491

Project Manager:		Don Mahr	Bill to: if different	Kyle Little
Company Name		LT Environmental, Inc., Permian office	Company Name	XTO-Energy
Address		3300 North A Street	Address	
City, State ZIP		Midland, TX 79706	City, State ZIP	Midland, NM
Phone		432.704.5178	Email	dmahr@xtoenergy.com critical@xtoenergy.com

Work Order Comments	
Program: UST/PST ☐ PRO ☐ Brownfields ☐ RC ☐ Superfund ☐ State of Project: Reporting Level: I ☐ Level III ☐ ETRUST ☐ PRO ☐ Level IV ☐ Deliverables: EDO ☐ ADAPT ☐ OPM ☐	

Project Name: **Rock Creek CDP** Turn Around: **ANALYSIS REQUEST** Work Order Notes:

Project Number: **012419297** Routine: ☐ Rush: **24hr**

P.O. Number: Date: **2/4/19**

Sample's Name: **Robert McAlister** Date Date:

SAMPLE RECEIPT

Temp Blank: **Yes** No **Yes** No **Yes** No

Temperature (°C): **17.2** Thermometer ID: **7-PA-009**

Received intact: **Yes** No **Yes** No **Yes** No

Container Custody Seal: **Yes** No **Yes** No **Yes** No

Sample Custody Seal: **Yes** No **Yes** No **Yes** No

Total Containers: **4**

TPH (EPA 8018) BTEX (EPA 8-0025) Chloride (EPA 300.0)

Sample Identification: **FS41/A** Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS42/A Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS107/A Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50A Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50B Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50C Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50D Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50E Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50F Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50G Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50H Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50I Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50J Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50K Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50L Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50M Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50N Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50O Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50P Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50Q Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50R Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50S Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50T Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50U Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50V Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50W Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50X Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50Y Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50Z Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AA Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AB Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AC Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AD Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AE Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AF Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AG Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AH Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AI Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AJ Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AK Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AL Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AM Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AN Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AO Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AP Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AQ Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AR Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AS Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AT Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AU Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AV Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AW Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AX Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AY Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50AZ Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50BA Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50BB Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50BC Matrix: **S** Date Sampled: **12/15/14** Temp Sampled: **12.5** Depth: **1'**

FS50BD Matrix: <

Analytical Report 644999

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

05-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



05-DEC-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **644999**

Ross Draw CDP

Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 644999. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 644999 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in dark ink, appearing to read 'Jessica Kramer', is written over a horizontal line.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS48A	S	12-02-19 12:20	1 ft	644999-001
FS49A	S	12-02-19 12:30	1 ft	644999-002
FS51A	S	12-02-19 12:45	1 ft	644999-003
FS52A	S	12-02-19 12:50	1 ft	644999-004



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 644999

Report Date: 05-DEC-19
Date Received: 12/04/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109457 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 644999-002 SD.

Batch: LBA-3109459 BTEX by EPA 8021B

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

Certificate of Analysis Summary 644999



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Wed Dec-04-19 08:45 am

Report Date: 05-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644999-001	644999-002	644999-003	644999-004		
	<i>Field Id:</i>	FS48A	FS49A	FS51A	FS52A		
	<i>Depth:</i>	1- ft	1- ft	1- ft	1- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Dec-02-19 12:20	Dec-02-19 12:30	Dec-02-19 12:45	Dec-02-19 12:50		
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-04-19 16:32	Dec-04-19 16:32	Dec-04-19 16:32	Dec-04-19 16:32		
	<i>Analyzed:</i>	Dec-04-19 22:49	Dec-04-19 23:08	Dec-04-19 23:27	Dec-04-19 23:46		
	<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	<0.00202 0.00202	<0.00202 0.00202		
Toluene		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202		
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202		
m,p-Xylenes		<0.00401 0.00401	<0.00403 0.00403	<0.00403 0.00403	<0.00403 0.00403		
o-Xylene		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202		
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202		
Total BTEX		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202		
Chloride by EPA 300	<i>Extracted:</i>	Dec-04-19 16:00	Dec-04-19 16:00	Dec-04-19 16:00	Dec-04-19 16:00		
	<i>Analyzed:</i>	Dec-04-19 20:08	Dec-04-19 20:14	Dec-04-19 20:21	Dec-04-19 20:27		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		157 9.92	80.0 9.88	117 9.98	111 9.88		
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-04-19 13:30	Dec-04-19 15:00	Dec-04-19 15:00	Dec-04-19 15:00		
	<i>Analyzed:</i>	Dec-04-19 19:54	Dec-04-19 20:53	Dec-04-19 21:13	Dec-04-19 21:32		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.1 50.1	<50.0 50.0	<49.8 49.8		
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<50.0 50.0	<49.8 49.8		
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<50.0 50.0	<49.8 49.8		
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<50.0 50.0	<49.8 49.8		
Total TPH		<50.2 50.2	<50.1 50.1	<50.0 50.0	<49.8 49.8		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS48A**
Lab Sample Id: 644999-001

Matrix: Soil
Date Collected: 12.02.19 12.20

Date Received: 12.04.19 08.45
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109469

Date Prep: 12.04.19 16.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	157	9.92	mg/kg	12.04.19 20.08		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109453

Date Prep: 12.04.19 13.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.04.19 19.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.04.19 19.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.04.19 19.54	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.04.19 19.54	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.04.19 19.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.04.19 19.54	
o-Terphenyl	84-15-1	118	%	70-135	12.04.19 19.54	



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS48A**
 Lab Sample Id: 644999-001

Matrix: Soil
 Date Collected: 12.02.19 12.20

Date Received: 12.04.19 08.45
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 16.32

Basis: Wet Weight

Seq Number: 3109459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.04.19 22.49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.04.19 22.49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.04.19 22.49	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.04.19 22.49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.04.19 22.49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.04.19 22.49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.04.19 22.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.04.19 22.49		
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.04.19 22.49		



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS49A** Matrix: Soil Date Received: 12.04.19 08.45
 Lab Sample Id: 644999-002 Date Collected: 12.02.19 12.30 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.04.19 16.00 Basis: Wet Weight
 Seq Number: 3109469

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	80.0	9.88	mg/kg	12.04.19 20.14		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.04.19 15.00 Basis: Wet Weight
 Seq Number: 3109457

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.04.19 20.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.04.19 20.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.04.19 20.53	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.04.19 20.53	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.04.19 20.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.04.19 20.53	
o-Terphenyl	84-15-1	111	%	70-135	12.04.19 20.53	



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS49A**
 Lab Sample Id: 644999-002

Matrix: Soil
 Date Collected: 12.02.19 12.30

Date Received: 12.04.19 08.45
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 16.32

Basis: Wet Weight

Seq Number: 3109459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.04.19 23.08	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.04.19 23.08	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.04.19 23.08	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.04.19 23.08	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.04.19 23.08	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.04.19 23.08	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.04.19 23.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.04.19 23.08		
4-Bromofluorobenzene	460-00-4	122	%	70-130	12.04.19 23.08		



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS51A** Matrix: Soil Date Received: 12.04.19 08.45
 Lab Sample Id: 644999-003 Date Collected: 12.02.19 12.45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.04.19 16.00 Basis: Wet Weight
 Seq Number: 3109469

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	117	9.98	mg/kg	12.04.19 20.21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.04.19 15.00 Basis: Wet Weight
 Seq Number: 3109457

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.04.19 21.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.04.19 21.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.04.19 21.13	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.04.19 21.13	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.04.19 21.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.04.19 21.13	
o-Terphenyl	84-15-1	118	%	70-135	12.04.19 21.13	



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS51A**
 Lab Sample Id: 644999-003

Matrix: Soil
 Date Collected: 12.02.19 12.45

Date Received: 12.04.19 08.45
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 16.32

Basis: Wet Weight

Seq Number: 3109459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.04.19 23.27	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.04.19 23.27	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.04.19 23.27	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.04.19 23.27	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.04.19 23.27	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.04.19 23.27	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.04.19 23.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	12.04.19 23.27		
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.04.19 23.27		



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS52A** Matrix: Soil Date Received: 12.04.19 08.45
 Lab Sample Id: 644999-004 Date Collected: 12.02.19 12.50 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.04.19 16.00 Basis: Wet Weight
 Seq Number: 3109469

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	111	9.88	mg/kg	12.04.19 20.27		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.04.19 15.00 Basis: Wet Weight
 Seq Number: 3109457

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.04.19 21.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.04.19 21.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.04.19 21.32	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.04.19 21.32	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.04.19 21.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.04.19 21.32	
o-Terphenyl	84-15-1	115	%	70-135	12.04.19 21.32	



Certificate of Analytical Results 644999

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS52A**
 Lab Sample Id: 644999-004

Matrix: Soil
 Date Collected: 12.02.19 12.50

Date Received: 12.04.19 08.45
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.04.19 16.32

Basis: Wet Weight

Seq Number: 3109459

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.04.19 23.46	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.04.19 23.46	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.04.19 23.46	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.04.19 23.46	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.04.19 23.46	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.04.19 23.46	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.04.19 23.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	12.04.19 23.46		
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.04.19 23.46		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109469

MB Sample Id: 7691689-1-BLK

Matrix: Solid

LCS Sample Id: 7691689-1-BKS

Prep Method: E300P

Date Prep: 12.04.19

LCSD Sample Id: 7691689-1-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	264	106	90-110	1	20	mg/kg	12.04.19 19:31	

Analytical Method: Chloride by EPA 300

Seq Number: 3109469

Parent Sample Id: 644992-001

Matrix: Soil

MS Sample Id: 644992-001 S

Prep Method: E300P

Date Prep: 12.04.19

MSD Sample Id: 644992-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	587	200	790	102	772	93	90-110	2	20	mg/kg	12.04.19 19:49	

Analytical Method: Chloride by EPA 300

Seq Number: 3109469

Parent Sample Id: 645005-001

Matrix: Soil

MS Sample Id: 645005-001 S

Prep Method: E300P

Date Prep: 12.04.19

MSD Sample Id: 645005-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3.18	200	211	104	209	104	90-110	1	20	mg/kg	12.04.19 21:17	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109453

MB Sample Id: 7691711-1-BLK

Matrix: Solid

LCS Sample Id: 7691711-1-BKS

Prep Method: SW8015P

Date Prep: 12.04.19

LCSD Sample Id: 7691711-1-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	914	91	940	94	70-135	3	35	mg/kg	12.04.19 15:37	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1140	114	70-135	9	35	mg/kg	12.04.19 15:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		124		130		70-135	%	12.04.19 15:37
o-Terphenyl	108		123		128		70-135	%	12.04.19 15:37

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

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

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109457

MB Sample Id: 7691713-1-BLK

Matrix: Solid

LCS Sample Id: 7691713-1-BKS

Prep Method: SW8015P

Date Prep: 12.04.19

LCSD Sample Id: 7691713-1-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	941	94	903	90	70-135	4	35	mg/kg	12.04.19 20:33	
Diesel Range Organics (DRO)	<50.0	1000	1100	110	1090	109	70-135	1	35	mg/kg	12.04.19 20:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		127		123		70-135	%	12.04.19 20:33
o-Terphenyl	117		127		131		70-135	%	12.04.19 20:33

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109453

Matrix: Solid

MB Sample Id: 7691711-1-BLK

Prep Method: SW8015P

Date Prep: 12.04.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.04.19 15:17	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109457

Matrix: Solid

MB Sample Id: 7691713-1-BLK

Prep Method: SW8015P

Date Prep: 12.04.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.04.19 20:14	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109453

Matrix: Soil

Parent Sample Id: 644983-001

MS Sample Id: 644983-001 S

Prep Method: SW8015P

Date Prep: 12.04.19

MSD Sample Id: 644983-001 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	902	90	916	91	70-135	2	35	mg/kg	12.04.19 15:57	
Diesel Range Organics (DRO)	62.4	1000	1090	103	1080	101	70-135	1	35	mg/kg	12.04.19 15:57	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		126		70-135	%	12.04.19 15:57
o-Terphenyl	132		126		70-135	%	12.04.19 15:57

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

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

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

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109457

Parent Sample Id: 644999-002

Matrix: Soil

MS Sample Id: 644999-002 S

Prep Method: SW8015P

Date Prep: 12.04.19

MSD Sample Id: 644999-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.3	1010	890	88	1010	101	70-135	13	35	mg/kg	12.04.19 20:53	
Diesel Range Organics (DRO)	<50.3	1010	1080	107	1140	114	70-135	5	35	mg/kg	12.04.19 20:53	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	124		130		70-135	%	12.04.19 20:53
o-Terphenyl	134		137	**	70-135	%	12.04.19 20:53

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109459

MB Sample Id: 7691696-1-BLK

Matrix: Solid

LCS Sample Id: 7691696-1-BKS

Prep Method: SW5030B

Date Prep: 12.04.19

LCSD Sample Id: 7691696-1-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	0.0906	91	0.0926	93	70-130	2	35	mg/kg	12.04.19 21:07	
Toluene	<0.00200	0.100	0.0925	93	0.0955	96	70-130	3	35	mg/kg	12.04.19 21:07	
Ethylbenzene	<0.00200	0.100	0.0917	92	0.0949	95	71-129	3	35	mg/kg	12.04.19 21:07	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.202	101	70-135	4	35	mg/kg	12.04.19 21:07	
o-Xylene	<0.00200	0.100	0.0988	99	0.102	102	71-133	3	35	mg/kg	12.04.19 21:07	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		102		102		70-130	%	12.04.19 21:07
4-Bromofluorobenzene	108		114		115		70-130	%	12.04.19 21:07

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109459

Parent Sample Id: 644999-001

Matrix: Soil

MS Sample Id: 644999-001 S

Prep Method: SW5030B

Date Prep: 12.04.19

MSD Sample Id: 644999-001 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	0.100	0.0815	82	0.0818	81	70-130	0	35	mg/kg	12.04.19 21:45	
Toluene	<0.00201	0.100	0.0830	83	0.0830	82	70-130	0	35	mg/kg	12.04.19 21:45	
Ethylbenzene	<0.00201	0.100	0.0817	82	0.0812	80	71-129	1	35	mg/kg	12.04.19 21:45	
m,p-Xylenes	<0.00402	0.201	0.173	86	0.171	85	70-135	1	35	mg/kg	12.04.19 21:45	
o-Xylene	<0.00201	0.100	0.0875	88	0.0871	86	71-133	0	35	mg/kg	12.04.19 21:45	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		70-130	%	12.04.19 21:45
4-Bromofluorobenzene	120		118		70-130	%	12.04.19 21:45

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: 241999

Houston, TX (281) 240-4200 (Mobile, TX (214) 922-0200) San Antonio, TX (210) 506-5334
Midland, TX (432) 704-6440 El Paso, TX (915) 855-3443 Lubbock, TX (806) 794-1206
Hebber, NM (877-392-7500) Phoenix, AZ (480) 355-0000 Atlanta, GA (770) 419-8800 Tampa, FL (813) 420-3000

www.xenco.com Page 1 of 1

Project Manager:	Erin Moore	Bill to (if different):	Kyle L. Reed
Company Name:	LT Environmental, Inc., Perrin office	Company Name:	ATD-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432 704 5178	Email:	donor@atdenergy.com atd@atdenergy.com

Project Name:	Russ Draw CDP	Turn Around:	
Project Number:	0124/9277	Routine:	☐
P.O. Number:		Rush:	2/1/
Sampler's Name:	Robert McAfee	Due Date:	

Program: UST/PT	☐ PMP	☐ Brownfields	☐ RC	☐ Superfund
Status of Project:				
Reporting Level: I	☐ Level III	☐ UST/UST	☐ RRP	☐ Level IV
Disposables: EDO	☐	ADAPT	☐	Other:

Temperature (°C):	1-2	Temp Blank:	☒ No	Well Use:	☒ No
Received Inlet:	☒ No	Thermometer ID:	T-MM-007		
Cooler Custody Beep:	Yes ☒ No ☐	Corrosion Factor:	0.2		
Sample Custody Seal:	Yes ☒ No ☐	Total Containers:	4		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers
FSV2A	S	12/10/11	12:30	1'	1
FSV9A			12:50		1
FS51A			10:05		1
FS32A			12:50		1

TPH (EPA 8016)	☒	BTEX (EPA 8-3021)	☒	Chloride (EPA 300.0)	☒

ANALYSIS REQUEST					
Work Order Notes					

TAT starts the day received by the lab. If received by a 31st.					
Sample Comments					

Total 200.7 / 60.10	200.8 / 60.20	SRCPA 13PFM Texas 11	At Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo N K Se Ag SnO2 Na Si Ti Sn U V Zn
Circle Method(s) and Method(s) to be analyzed	TCPL / SPLP 6010	SRCPA SB AS BA BE CD CR CO CU PB MN MO NI SE AG TI U	1631 / 245.1 / 7470 / 7471 / Hg

The Signatory of this document certifies that the sample submitted is a valid plastic bottle under chain of custody to Xenco, its affiliates and subcontractors. It certifies standard terms and conditions apply. Xenco will be liable only for the cost of sample and test (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 \$4 for each sample submitted to Xenco, but not analyzed. These terms will be signed 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>	12-4-2014	<i>[Signature]</i>	<i>[Signature]</i>	12/11/14 08:00

Analytical Report 645358

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919297

09-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



09-DEC-19

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

Reference: XENCO Report No(s): **645358**
Ross Draw CDP
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 645358. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 645358 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 645358

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS41 B	S	12-05-19 15:40	1.5 ft	645358-001



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919297
Work Order Number(s): 645358

Report Date: 09-DEC-19
Date Received: 12/06/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109696 BTEX by EPA 8021B

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

Certificate of Analysis Summary 645358



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919297

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 09-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	645358-001					
	Field Id:	FS41 B					
	Depth:	1.5- ft					
	Matrix:	SOIL					
	Sampled:	Dec-05-19 15:40					
BTEX by EPA 8021B	Extracted:	Dec-06-19 11:00					
	Analyzed:	Dec-06-19 14:46					
	Units/RL:	mg/kg RL					
Benzene		<0.00201 0.00201					
Toluene		<0.00201 0.00201					
Ethylbenzene		<0.00201 0.00201					
m,p-Xylenes		<0.00402 0.00402					
o-Xylene		<0.00201 0.00201					
Total Xylenes		<0.00201 0.00201					
Total BTEX		<0.00201 0.00201					
Chloride by EPA 300	Extracted:	Dec-06-19 11:00					
	Analyzed:	Dec-06-19 14:43					
	Units/RL:	mg/kg RL					
Chloride		298 9.96					
TPH by SW8015 Mod	Extracted:	Dec-06-19 13:00					
	Analyzed:	Dec-06-19 17:26					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3					
Diesel Range Organics (DRO)		<50.3 50.3					
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3					
Total GRO-DRO		<50.3 50.3					
Total TPH		<50.3 50.3					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 645358

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS41 B** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645358-001 Date Collected: 12.05.19 15.40 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	298	9.96	mg/kg	12.06.19 14.43		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 17.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 17.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 17.26	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 17.26	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 17.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	12.06.19 17.26	
o-Terphenyl	84-15-1	96	%	70-135	12.06.19 17.26	



Certificate of Analytical Results 645358

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS41 B**
 Lab Sample Id: 645358-001

Matrix: Soil
 Date Collected: 12.05.19 15.40

Date Received: 12.06.19 08.30
 Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.06.19 14.46	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.06.19 14.46	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.06.19 14.46	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.06.19 14.46	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.06.19 14.46	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.06.19 14.46	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.06.19 14.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	12.06.19 14.46		
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.06.19 14.46		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109699

MB Sample Id: 7691886-1-BLK

Matrix: Solid

LCS Sample Id: 7691886-1-BKS

Prep Method: E300P

Date Prep: 12.06.19

LCSD Sample Id: 7691886-1-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	263	105	265	106	90-110	1	20	mg/kg	12.06.19 12:36	

Analytical Method: Chloride by EPA 300

Seq Number: 3109699

Parent Sample Id: 645361-001

Matrix: Soil

MS Sample Id: 645361-001 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645361-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.6	201	185	86	184	86	90-110	1	20	mg/kg	12.06.19 12:48	X

Analytical Method: Chloride by EPA 300

Seq Number: 3109699

Parent Sample Id: 645363-011

Matrix: Soil

MS Sample Id: 645363-011 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645363-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.98	250	291	116	293	118	90-110	1	20	mg/kg	12.06.19 14:09	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109762

MB Sample Id: 7691873-1-BLK

Matrix: Solid

LCS Sample Id: 7691873-1-BKS

Prep Method: SW8015P

Date Prep: 12.06.19

LCSD Sample Id: 7691873-1-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	882	88	835	84	70-135	5	35	mg/kg	12.06.19 16:06	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1030	103	70-135	3	35	mg/kg	12.06.19 16:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		134		132		70-135	%	12.06.19 16:06
o-Terphenyl	134		124		128		70-135	%	12.06.19 16:06

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109762

Matrix: Solid

MB Sample Id: 7691873-1-BLK

Prep Method: SW8015P

Date Prep: 12.06.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.06.19 15:46	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109762

Parent Sample Id: 645345-001

Matrix: Soil

MS Sample Id: 645345-001 S

Prep Method: SW8015P

Date Prep: 12.06.19

MSD Sample Id: 645345-001 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)	<49.9	998	834	84	1040	104	70-135	22	35	mg/kg	12.06.19 16:26	
Diesel Range Organics (DRO)	<49.9	998	1020	102	1240	124	70-135	19	35	mg/kg	12.06.19 16:26	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		130		70-135	%	12.06.19 16:26
o-Terphenyl	107		122		70-135	%	12.06.19 16:26

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109696

MB Sample Id: 7691892-1-BLK

Matrix: Solid

LCS Sample Id: 7691892-1-BKS

Prep Method: SW5030B

Date Prep: 12.06.19

LCSD Sample Id: 7691892-1-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	0.0980	98	0.0912	91	70-130	7	35	mg/kg	12.06.19 11:29	
Toluene	<0.00200	0.100	0.0989	99	0.0940	94	70-130	5	35	mg/kg	12.06.19 11:29	
Ethylbenzene	<0.00200	0.100	0.0984	98	0.0939	94	71-129	5	35	mg/kg	12.06.19 11:29	
m,p-Xylenes	<0.00400	0.200	0.207	104	0.199	100	70-135	4	35	mg/kg	12.06.19 11:29	
o-Xylene	<0.00200	0.100	0.104	104	0.0997	100	71-133	4	35	mg/kg	12.06.19 11:29	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		101		70-130	%	12.06.19 11:29
4-Bromofluorobenzene	105		114		117		70-130	%	12.06.19 11:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109696

Parent Sample Id: 645345-001

Matrix: Soil

MS Sample Id: 645345-001 S

Prep Method: SW5030B

Date Prep: 12.06.19

MSD Sample Id: 645345-001 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	0.100	0.104	104	0.0986	99	70-130	5	35	mg/kg	12.06.19 12:07	
Toluene	<0.00201	0.100	0.106	106	0.0994	100	70-130	6	35	mg/kg	12.06.19 12:07	
Ethylbenzene	<0.00201	0.100	0.104	104	0.0978	98	71-129	6	35	mg/kg	12.06.19 12:07	
m,p-Xylenes	<0.00402	0.201	0.221	110	0.206	104	70-135	7	35	mg/kg	12.06.19 12:07	
o-Xylene	<0.00201	0.100	0.112	112	0.104	104	71-133	7	35	mg/kg	12.06.19 12:07	

Surrogate

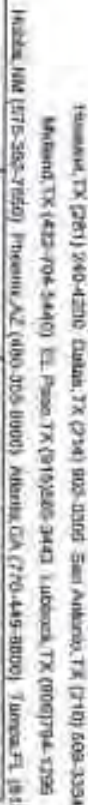
	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		103		70-130	%	12.06.19 12:07
4-Bromofluorobenzene	120		117		70-130	%	12.06.19 12:07

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: 45326

Project Manager	Dan Mott	EMail to (if different)	Kyle Libral
Company Name	L.T. Environmental Inc., Portman office	Company Name	XTO-Energy
Address	3300 North A Street	Address	
City, State, Zip	Melburn, TX 79705	City, State Zip	Carlsbad, NM
Phone	432.704.5178	Fax	diversal@envi.sgm.rgsales@llnwy.com

Work Order Comments			
Program: UST/PIST	☐ PRP	☐ present/abs	☐ PG ☐ important ☐
State of Project			
Reporting Level is	☐ Level III	☐ PSTRJLST	☐ BRP ☐ Level IV ☐
Deliverables: EDO	☐	ADAPT	☐ Other:

Project Name:		P.O. Number:		Turn Around		ANALYSIS REQUEST												Work Order Notes	
Project Number:		P.O. Number:		Routine														TAT starts the day received by the lab, & received by Addressee Sample Comments	
Sampler's Name:		Robert McAlvin		Rush: ☒															
Due Date:																			
SAMPLE RECEIPT				Temp Blank		Yes		No		Well Log		Yes		No					
Temperature (°C)				2.5						Thermometer ID									
Recovery Initial				Yes		No				Correction Factor		-0.2							
Cooler Custody Seal				Yes		No				Total Containers		1							
Sample Custody Seal				Yes		No				TPH (EPA 8016)		X							
										BTEX (EPA 8011)		X							
										Chloride (EPA 8010)		X							
Sample Identification				Matrix		Date Sampled		Time Sampled		Depth									
TS418				S		11/10/11		1500		0.5									

Cyclic Monofluoride and Metalls) to be analyzed	Total 200.7 / 6010	200.8 / 6020:
6RCRA 13CFM Toxic T1	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SnO2 Na Sr Ti Sn U V Zn	
TCLP / SPLP 6010: 6RCRA Sb As Ba Be Cd Cr Co Cu Fe Pb Mn Mo Ni Se Ag Ti U		1631 / 245.1 / 7470 / 7471 : Hg

Other Significant of this document will be implementation of sampling materials at a world purchase order from client company in Germany, the affiliation and subcontractors. It assigns standard service and conditions for the Xerox will be able only for the cost of samples and send our systems are respectively for any increase or decrease described by the client it must located are due to circumstances beyond its control. A minimum charge of \$750 will be applied to each project and a charge of \$3 per each sample submitted to Xerox for test analysis. These terms will be different 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>	12/6/19	<i>[Signature]</i>	<i>[Signature]</i>	12/6/19 08:30

Analytical Report 645363

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

09-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



09-DEC-19

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

Reference: XENCO Report No(s): **645363**
Ross Draw CDP
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 645363. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 645363 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH01	S	12-04-19 11:35	1 ft	645363-001
BH01A	S	12-04-19 11:40	2 ft	645363-002
BH02	S	12-04-19 11:45	1 ft	645363-003
BH02A	S	12-04-19 11:35	2 ft	645363-004
BH03	S	12-04-19 11:48	1 ft	645363-005
BH03A	S	12-04-19 11:50	2 ft	645363-006
BH04	S	12-04-19 12:55	1 ft	645363-007
BH04A	S	12-04-19 12:00	2 ft	645363-008
BH05	S	12-04-19 12:05	1 ft	645363-009
BH05A	S	12-04-19 12:10	2 ft	645363-010
BH06	S	12-04-19 12:15	1 ft	645363-011
BH06A	S	12-04-19 12:30	2 ft	645363-012
BH07	S	12-04-19 12:35	1 ft	645363-013
BH07A	S	12-04-19 12:40	2 ft	645363-014
BH08	S	12-04-19 12:45	1 ft	645363-015
BH08A	S	12-04-19 12:50	2 ft	645363-016
BH09	S	12-04-19 12:55	1 ft	645363-017
BH09A	S	12-04-19 13:00	2 ft	645363-018
BH10	S	12-04-19 13:05	1 ft	645363-019
BH10A	S	12-04-19 13:10	2 ft	645363-020



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 645363

Report Date: 09-DEC-19
Date Received: 12/06/2019

Sample receipt non conformance and comments:

None

Sample receipt non conformance and comments per sample:

None

Analytical non conformance and comments:

Batch: LBA-3109695 BTEX by EPA 8021B

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

Batch: LBA-3109699 Chloride by EPA 300

Lab Sample ID 645363-011 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 645363-007, -008, -009, -010, -011, -012, -013, -014, -015.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3109720 Chloride by EPA 300

Lab Sample ID 645363-020 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 645363-001, -002, -003, -004, -005, -006, -016, -017, -018, -019, -020.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 645363



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 09-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	645363-001	645363-002	645363-003	645363-004	645363-005	645363-006
	Field Id:	BH01	BH01A	BH02	BH02A	BH03	BH03A
	Depth:	1- ft	2- ft	1- ft	2- ft	1- ft	2- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Dec-04-19 11:35	Dec-04-19 11:40	Dec-04-19 11:45	Dec-04-19 11:35	Dec-04-19 11:48	Dec-04-19 11:50
BTEX by EPA 8021B	Extracted:	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00
	Analyzed:	Dec-06-19 13:31	Dec-06-19 13:48	Dec-06-19 14:05	Dec-06-19 14:23	Dec-06-19 14:40	Dec-06-19 14:58
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00404 0.00404	<0.00403 0.00403	<0.00398 0.00398	<0.00399 0.00399	<0.00395 0.00395	<0.00401 0.00401
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Chloride by EPA 300	Extracted:	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13
	Analyzed:	Dec-06-19 15:59	Dec-06-19 16:16	Dec-06-19 16:22	Dec-06-19 16:28	Dec-06-19 16:34	Dec-06-19 16:51
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		36.5 10.0	<10.0 10.0	296 10.0	181 9.98	<9.94 9.94	16.1 9.92
TPH by SW8015 Mod	Extracted:	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 13:00
	Analyzed:	Dec-06-19 18:05	Dec-06-19 18:25	Dec-06-19 18:45	Dec-06-19 18:45	Dec-06-19 19:06	Dec-06-19 19:06
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.2 50.2
Diesel Range Organics (DRO)		<50.2 50.2	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.2 50.2
Total GRO-DRO		<50.2 50.2	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.2 50.2
Total TPH		<50.2 50.2	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.2 50.2

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 645363



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 09-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645363-007	645363-008	645363-009	645363-010	645363-011	645363-012
	<i>Field Id:</i>	BH04	BH04A	BH05	BH05A	BH06	BH06A
	<i>Depth:</i>	1- ft	2- ft	1- ft	2- ft	1- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-04-19 12:55	Dec-04-19 12:00	Dec-04-19 12:05	Dec-04-19 12:10	Dec-04-19 12:15	Dec-04-19 12:30
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00
	<i>Analyzed:</i>	Dec-06-19 15:15	Dec-06-19 15:32	Dec-06-19 15:50	Dec-06-19 13:13	Dec-06-19 16:59	Dec-06-19 17:16
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
m,p-Xylenes		<0.00403 0.00403	<0.00404 0.00404	<0.00401 0.00401	<0.00399 0.00399	<0.00398 0.00398	<0.00396 0.00396
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00
	<i>Analyzed:</i>	Dec-06-19 13:40	Dec-06-19 13:45	Dec-06-19 13:51	Dec-06-19 13:57	Dec-06-19 14:03	Dec-06-19 14:20
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		330 9.98	484 9.88	<9.92 9.92	<9.90 9.90	<9.94 9.94	322 9.86
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 13:00	Dec-06-19 15:30
	<i>Analyzed:</i>	Dec-06-19 19:26	Dec-06-19 19:26	Dec-06-19 19:46	Dec-06-19 19:46	Dec-06-19 20:06	Dec-06-19 20:47
	<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	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.3 50.3	<49.8 49.8
Diesel Range Organics (DRO)		<49.8 49.8	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.3 50.3	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.3 50.3	<49.8 49.8
Total GRO-DRO		<49.8 49.8	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.3 50.3	<49.8 49.8
Total TPH		<49.8 49.8	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.3 50.3	<49.8 49.8

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 645363

LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 09-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645363-013	645363-014	645363-015	645363-016	645363-017	645363-018
	<i>Field Id:</i>	BH07	BH07A	BH08	BH08A	BH09	BH09A
	<i>Depth:</i>	1- ft	2- ft	1- ft	2- ft	1- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-04-19 12:35	Dec-04-19 12:40	Dec-04-19 12:45	Dec-04-19 12:50	Dec-04-19 12:55	Dec-04-19 13:00
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00
	<i>Analyzed:</i>	Dec-06-19 17:34	Dec-06-19 17:51	Dec-06-19 18:09	Dec-06-19 18:26	Dec-06-19 18:43	Dec-06-19 19:01
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
m,p-Xylenes		<0.00403 0.00403	<0.00403 0.00403	<0.00398 0.00398	<0.00404 0.00404	<0.00403 0.00403	<0.00402 0.00402
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13
	<i>Analyzed:</i>	Dec-06-19 14:26	Dec-06-19 15:12	Dec-06-19 15:24	Dec-06-19 16:57	Dec-06-19 17:03	Dec-06-19 17:08
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		476 9.98	311 10.0	33.9 10.0	77.9 9.90	<9.98 9.98	215 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30
	<i>Analyzed:</i>	Dec-06-19 21:26	Dec-06-19 21:26	Dec-06-19 21:47	Dec-06-19 21:47	Dec-06-19 22:07	Dec-06-19 22:07
	<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	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9
Diesel Range Organics (DRO)		<50.2 50.2	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9
Total GRO-DRO		<50.2 50.2	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9
Total TPH		<50.2 50.2	<50.2 50.2	<50.1 50.1	<50.2 50.2	<50.2 50.2	<49.9 49.9

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 645363



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 09-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	645363-019	645363-020				
	Field Id:	BH10	BH10A				
	Depth:	1- ft	2- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Dec-04-19 13:05	Dec-04-19 13:10				
BTEX by EPA 8021B	Extracted:	Dec-06-19 11:00	Dec-06-19 11:00				
	Analyzed:	Dec-06-19 19:18	Dec-06-19 19:36				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00198 0.00198	<0.00201 0.00201				
Toluene		<0.00198 0.00198	<0.00201 0.00201				
Ethylbenzene		<0.00198 0.00198	<0.00201 0.00201				
m,p-Xylenes		<0.00397 0.00397	<0.00402 0.00402				
o-Xylene		<0.00198 0.00198	<0.00201 0.00201				
Total Xylenes		<0.00198 0.00198	<0.00201 0.00201				
Total BTEX		<0.00198 0.00198	<0.00201 0.00201				
Chloride by EPA 300	Extracted:	Dec-06-19 14:13	Dec-06-19 14:13				
	Analyzed:	Dec-06-19 17:14	Dec-06-19 17:20				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		589 9.92	270 9.88				
TPH by SW8015 Mod	Extracted:	Dec-06-19 15:30	Dec-06-19 15:30				
	Analyzed:	Dec-06-19 22:27	Dec-06-19 22:27				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.3 50.3				
Diesel Range Organics (DRO)		<50.2 50.2	<50.3 50.3				
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.3 50.3				
Total GRO-DRO		<50.2 50.2	<50.3 50.3				
Total TPH		<50.2 50.2	<50.3 50.3				

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH01** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-001 Date Collected: 12.04.19 11.35 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	36.5	10.0	mg/kg	12.06.19 15.59		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 18.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 18.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 18.05	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 18.05	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 18.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	12.06.19 18.05	
o-Terphenyl	84-15-1	98	%	70-135	12.06.19 18.05	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH01**
 Lab Sample Id: 645363-001

Matrix: Soil
 Date Collected: 12.04.19 11.35

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 13.31	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 13.31	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 13.31	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.06.19 13.31	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 13.31	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 13.31	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 13.31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.06.19 13.31		
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.06.19 13.31		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH01A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-002 Date Collected: 12.04.19 11.40 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	12.06.19 16.16	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.06.19 18.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.06.19 18.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.06.19 18.25	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.06.19 18.25	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.06.19 18.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	12.06.19 18.25	
o-Terphenyl	84-15-1	100	%	70-135	12.06.19 18.25	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH01A**
 Lab Sample Id: 645363-002

Matrix: Soil
 Date Collected: 12.04.19 11.40

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 13.48	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 13.48	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 13.48	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.06.19 13.48	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 13.48	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 13.48	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 13.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.06.19 13.48		
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.06.19 13.48		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH02** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-003 Date Collected: 12.04.19 11.45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	296	10.0	mg/kg	12.06.19 16.22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.06.19 18.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.06.19 18.45	
o-Terphenyl	84-15-1	95	%	70-135	12.06.19 18.45	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH02**
 Lab Sample Id: 645363-003

Matrix: Soil
 Date Collected: 12.04.19 11.45

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.06.19 14.05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.06.19 14.05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.06.19 14.05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.06.19 14.05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.06.19 14.05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.06.19 14.05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.06.19 14.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.06.19 14.05		
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.06.19 14.05		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH02A**
 Lab Sample Id: 645363-004

Matrix: Soil
 Date Collected: 12.04.19 11.35

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109720

Date Prep: 12.06.19 14.13

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	181	9.98	mg/kg	12.06.19 16.28		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109762

Date Prep: 12.06.19 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.06.19 18.45	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.06.19 18.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	12.06.19 18.45	
o-Terphenyl	84-15-1	97	%	70-135	12.06.19 18.45	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH02A**
 Lab Sample Id: 645363-004

Matrix: Soil
 Date Collected: 12.04.19 11.35

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 14.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 14.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 14.23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.06.19 14.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 14.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 14.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 14.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.06.19 14.23		
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.06.19 14.23		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH03** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-005 Date Collected: 12.04.19 11.48 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	12.06.19 16.34	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.06.19 19.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.06.19 19.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.06.19 19.06	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.06.19 19.06	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.06.19 19.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.06.19 19.06	
o-Terphenyl	84-15-1	96	%	70-135	12.06.19 19.06	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH03**
 Lab Sample Id: 645363-005

Matrix: Soil
 Date Collected: 12.04.19 11.48

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.06.19 14.40	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.06.19 14.40	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.06.19 14.40	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	12.06.19 14.40	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.06.19 14.40	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.06.19 14.40	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.06.19 14.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.06.19 14.40		
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.06.19 14.40		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH03A**
Lab Sample Id: 645363-006

Matrix: Soil
Date Collected: 12.04.19 11.50

Date Received: 12.06.19 08.30
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109720

Date Prep: 12.06.19 14.13

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.1	9.92	mg/kg	12.06.19 16.51		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109762

Date Prep: 12.06.19 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 19.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 19.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 19.06	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 19.06	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 19.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.06.19 19.06	
o-Terphenyl	84-15-1	96	%	70-135	12.06.19 19.06	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH03A**
 Lab Sample Id: 645363-006

Matrix: Soil
 Date Collected: 12.04.19 11.50

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 14.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 14.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 14.58	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.06.19 14.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 14.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 14.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 14.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.06.19 14.58		
4-Bromofluorobenzene	460-00-4	108	%	70-130	12.06.19 14.58		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH04** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-007 Date Collected: 12.04.19 12.55 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	330	9.98	mg/kg	12.06.19 13.40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.06.19 19.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.06.19 19.26	
o-Terphenyl	84-15-1	97	%	70-135	12.06.19 19.26	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH04**
 Lab Sample Id: 645363-007

Matrix: Soil
 Date Collected: 12.04.19 12.55

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 15.15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 15.15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 15.15	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.06.19 15.15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 15.15	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 15.15	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 15.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.06.19 15.15		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.06.19 15.15		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH04A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-008 Date Collected: 12.04.19 12.00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	484	9.88	mg/kg	12.06.19 13.45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.06.19 19.26	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.06.19 19.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	12.06.19 19.26	
o-Terphenyl	84-15-1	100	%	70-135	12.06.19 19.26	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH04A**
 Lab Sample Id: 645363-008

Matrix: Soil
 Date Collected: 12.04.19 12.00

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 15.32	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 15.32	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 15.32	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.06.19 15.32	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 15.32	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 15.32	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 15.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	88	%	70-130	12.06.19 15.32		
1,4-Difluorobenzene	540-36-3	88	%	70-130	12.06.19 15.32		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH05** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-009 Date Collected: 12.04.19 12.05 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	12.06.19 13.51	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.06.19 19.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.06.19 19.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.06.19 19.46	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.06.19 19.46	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.06.19 19.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	12.06.19 19.46	
o-Terphenyl	84-15-1	97	%	70-135	12.06.19 19.46	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH05**
 Lab Sample Id: 645363-009

Matrix: Soil
 Date Collected: 12.04.19 12.05

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 15.50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 15.50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 15.50	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.06.19 15.50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 15.50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 15.50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 15.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.06.19 15.50		
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.06.19 15.50		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH05A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-010 Date Collected: 12.04.19 12.10 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.90	9.90	mg/kg	12.06.19 13.57	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 13.00 Basis: Wet Weight
 Seq Number: 3109762

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.06.19 19.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.06.19 19.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.06.19 19.46	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.06.19 19.46	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.06.19 19.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	12.06.19 19.46	
o-Terphenyl	84-15-1	97	%	70-135	12.06.19 19.46	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH05A**
 Lab Sample Id: 645363-010

Matrix: Soil
 Date Collected: 12.04.19 12.10

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 13.13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 13.13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 13.13	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.06.19 13.13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 13.13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 13.13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 13.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	12.06.19 13.13		
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.06.19 13.13		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH06**
Lab Sample Id: 645363-011

Matrix: Soil
Date Collected: 12.04.19 12.15

Date Received: 12.06.19 08.30
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3109699

Date Prep: 12.06.19 11.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.94	9.94	mg/kg	12.06.19 14.03	U	1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3109762

Date Prep: 12.06.19 13.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 20.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 20.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 20.06	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 20.06	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 20.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.06.19 20.06	
o-Terphenyl	84-15-1	98	%	70-135	12.06.19 20.06	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH06**
 Lab Sample Id: 645363-011

Matrix: Soil
 Date Collected: 12.04.19 12.15

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.06.19 16.59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.06.19 16.59	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.06.19 16.59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.06.19 16.59	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.06.19 16.59	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.06.19 16.59	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.06.19 16.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	70-130	12.06.19 16.59		
1,4-Difluorobenzene	540-36-3	93	%	70-130	12.06.19 16.59		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH06A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-012 Date Collected: 12.04.19 12.30 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	322	9.86	mg/kg	12.06.19 14.20		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.06.19 20.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.06.19 20.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.06.19 20.47	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.06.19 20.47	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.06.19 20.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	12.06.19 20.47	
o-Terphenyl	84-15-1	97	%	70-135	12.06.19 20.47	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH06A**
 Lab Sample Id: 645363-012

Matrix: Soil
 Date Collected: 12.04.19 12.30

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.06.19 17.16	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.06.19 17.16	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.06.19 17.16	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.06.19 17.16	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.06.19 17.16	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.06.19 17.16	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.06.19 17.16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.06.19 17.16		
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.06.19 17.16		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH07** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-013 Date Collected: 12.04.19 12.35 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	476	9.98	mg/kg	12.06.19 14.26		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 21.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.06.19 21.26	
o-Terphenyl	84-15-1	102	%	70-135	12.06.19 21.26	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH07**
 Lab Sample Id: 645363-013

Matrix: Soil
 Date Collected: 12.04.19 12.35

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 17.34	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 17.34	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 17.34	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.06.19 17.34	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 17.34	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 17.34	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 17.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.06.19 17.34		
4-Bromofluorobenzene	460-00-4	98	%	70-130	12.06.19 17.34		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH07A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-014 Date Collected: 12.04.19 12.40 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	311	10.0	mg/kg	12.06.19 15.12		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 21.26	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 21.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	12.06.19 21.26	
o-Terphenyl	84-15-1	99	%	70-135	12.06.19 21.26	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH07A**
 Lab Sample Id: 645363-014

Matrix: Soil
 Date Collected: 12.04.19 12.40

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 17.51	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 17.51	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 17.51	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.06.19 17.51	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 17.51	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 17.51	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 17.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.06.19 17.51		
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.06.19 17.51		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH08** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-015 Date Collected: 12.04.19 12.45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 11.00 Basis: Wet Weight
 Seq Number: 3109699

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	33.9	10.0	mg/kg	12.06.19 15.24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.06.19 21.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.06.19 21.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.06.19 21.47	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.06.19 21.47	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.06.19 21.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.06.19 21.47	
o-Terphenyl	84-15-1	101	%	70-135	12.06.19 21.47	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH08**
 Lab Sample Id: 645363-015

Matrix: Soil
 Date Collected: 12.04.19 12.45

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.06.19 18.09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.06.19 18.09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.06.19 18.09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.06.19 18.09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.06.19 18.09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.06.19 18.09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.06.19 18.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.06.19 18.09		
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.06.19 18.09		



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH08A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-016 Date Collected: 12.04.19 12.50 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	77.9	9.90	mg/kg	12.06.19 16.57		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 21.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 21.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 21.47	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 21.47	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 21.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	12.06.19 21.47	
o-Terphenyl	84-15-1	98	%	70-135	12.06.19 21.47	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH08A**
 Lab Sample Id: 645363-016

Matrix: Soil
 Date Collected: 12.04.19 12.50

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 18.26	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 18.26	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 18.26	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.06.19 18.26	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 18.26	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 18.26	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 18.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.06.19 18.26		
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.06.19 18.26		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH09** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-017 Date Collected: 12.04.19 12.55 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	12.06.19 17.03	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 22.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 22.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 22.07	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 22.07	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 22.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	12.06.19 22.07	
o-Terphenyl	84-15-1	114	%	70-135	12.06.19 22.07	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH09**
 Lab Sample Id: 645363-017

Matrix: Soil
 Date Collected: 12.04.19 12.55

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 18.43	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 18.43	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 18.43	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.06.19 18.43	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 18.43	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 18.43	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 18.43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.06.19 18.43		
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.06.19 18.43		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH09A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-018 Date Collected: 12.04.19 13.00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	215	9.98	mg/kg	12.06.19 17.08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.06.19 22.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.06.19 22.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.06.19 22.07	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.06.19 22.07	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.06.19 22.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	12.06.19 22.07	
o-Terphenyl	84-15-1	121	%	70-135	12.06.19 22.07	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH09A**
 Lab Sample Id: 645363-018

Matrix: Soil
 Date Collected: 12.04.19 13.00

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.06.19 19.01	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.06.19 19.01	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.06.19 19.01	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.06.19 19.01	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.06.19 19.01	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.06.19 19.01	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.06.19 19.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.06.19 19.01		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.06.19 19.01		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH10** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-019 Date Collected: 12.04.19 13.05 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	589	9.92	mg/kg	12.06.19 17.14		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 22.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 22.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 22.27	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 22.27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 22.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	12.06.19 22.27	
o-Terphenyl	84-15-1	113	%	70-135	12.06.19 22.27	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH10**
 Lab Sample Id: 645363-019

Matrix: Soil
 Date Collected: 12.04.19 13.05

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.06.19 19.18	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.06.19 19.18	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.06.19 19.18	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.06.19 19.18	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.06.19 19.18	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.06.19 19.18	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.06.19 19.18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.06.19 19.18		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.06.19 19.18		



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH10A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645363-020 Date Collected: 12.04.19 13.10 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	270	9.88	mg/kg	12.06.19 17.20		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 22.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 22.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 22.27	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 22.27	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 22.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.06.19 22.27	
o-Terphenyl	84-15-1	98	%	70-135	12.06.19 22.27	



Certificate of Analytical Results 645363

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH10A**
 Lab Sample Id: 645363-020

Matrix: Soil
 Date Collected: 12.04.19 13.10

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109695

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.06.19 19.36	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.06.19 19.36	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.06.19 19.36	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.06.19 19.36	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.06.19 19.36	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.06.19 19.36	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.06.19 19.36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.06.19 19.36		
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.06.19 19.36		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109699

MB Sample Id: 7691886-1-BLK

Matrix: Solid

LCS Sample Id: 7691886-1-BKS

Prep Method: E300P

Date Prep: 12.06.19

LCSD Sample Id: 7691886-1-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	263	105	265	106	90-110	1	20	mg/kg	12.06.19 12:36	

Analytical Method: Chloride by EPA 300

Seq Number: 3109720

MB Sample Id: 7691887-1-BLK

Matrix: Solid

LCS Sample Id: 7691887-1-BKS

Prep Method: E300P

Date Prep: 12.06.19

LCSD Sample Id: 7691887-1-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	274	110	266	106	90-110	3	20	mg/kg	12.06.19 15:47	

Analytical Method: Chloride by EPA 300

Seq Number: 3109699

Parent Sample Id: 645361-001

Matrix: Soil

MS Sample Id: 645361-001 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645361-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.6	201	185	86	184	86	90-110	1	20	mg/kg	12.06.19 12:48	X

Analytical Method: Chloride by EPA 300

Seq Number: 3109699

Parent Sample Id: 645363-011

Matrix: Soil

MS Sample Id: 645363-011 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645363-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.98	250	291	116	293	118	90-110	1	20	mg/kg	12.06.19 14:09	X

Analytical Method: Chloride by EPA 300

Seq Number: 3109720

Parent Sample Id: 645363-001

Matrix: Soil

MS Sample Id: 645363-001 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645363-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	36.5	504	469	86	470	86	90-110	0	20	mg/kg	12.06.19 16:05	X

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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109720

Parent Sample Id: 645363-020

Matrix: Soil

MS Sample Id: 645363-020 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645363-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	270	197	481	107	483	108	90-110	0	20	mg/kg	12.06.19 17:27	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109762

MB Sample Id: 7691873-1-BLK

Matrix: Solid

LCS Sample Id: 7691873-1-BKS

Prep Method: SW8015P

Date Prep: 12.06.19

LCSD Sample Id: 7691873-1-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	882	88	835	84	70-135	5	35	mg/kg	12.06.19 16:06	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1030	103	70-135	3	35	mg/kg	12.06.19 16:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		134		132		70-135	%	12.06.19 16:06
o-Terphenyl	134		124		128		70-135	%	12.06.19 16:06

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109769

MB Sample Id: 7691876-1-BLK

Matrix: Solid

LCS Sample Id: 7691876-1-BKS

Prep Method: SW8015P

Date Prep: 12.06.19

LCSD Sample Id: 7691876-1-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)	<13.9	1000	839	84	915	92	70-135	9	35	mg/kg	12.06.19 20:27	
Diesel Range Organics (DRO)	22.4	1000	1030	103	1100	110	70-135	7	35	mg/kg	12.06.19 20:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	134		131		133		70-135	%	12.06.19 20:27
o-Terphenyl	131		122		128		70-135	%	12.06.19 20:27

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109762

Matrix: Solid

MB Sample Id: 7691873-1-BLK

Prep Method: SW8015P

Date Prep: 12.06.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.06.19 15:46	

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

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

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109769

Matrix: Solid

Prep Method: SW8015P

Date Prep: 12.06.19

MB Sample Id: 7691876-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.06.19 20:47	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109762

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.06.19

Parent Sample Id: 645345-001

MS Sample Id: 645345-001 S

MSD Sample Id: 645345-001 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)	<49.9	998	834	84	1040	104	70-135	22	35	mg/kg	12.06.19 16:26	
Diesel Range Organics (DRO)	<49.9	998	1020	102	1240	124	70-135	19	35	mg/kg	12.06.19 16:26	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		130		70-135	%	12.06.19 16:26
o-Terphenyl	107		122		70-135	%	12.06.19 16:26

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109769

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.06.19

Parent Sample Id: 645363-012

MS Sample Id: 645363-012 S

MSD Sample Id: 645363-012 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)	<13.9	1000	1070	107	848	85	70-135	23	35	mg/kg	12.06.19 21:06	
Diesel Range Organics (DRO)	17.2	1000	1240	122	1040	102	70-135	18	35	mg/kg	12.06.19 21:06	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	133		109		70-135	%	12.06.19 21:06
o-Terphenyl	119		109		70-135	%	12.06.19 21:06

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

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

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109695

MB Sample Id: 7691891-1-BLK

Matrix: Solid

LCS Sample Id: 7691891-1-BKS

Prep Method: SW5030B

Date Prep: 12.06.19

LCSD Sample Id: 7691891-1-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	0.0976	98	0.102	102	70-130	4	35	mg/kg	12.06.19 11:30	
Toluene	<0.00200	0.100	0.0964	96	0.102	102	70-130	6	35	mg/kg	12.06.19 11:30	
Ethylbenzene	<0.00200	0.100	0.0943	94	0.0996	100	71-129	5	35	mg/kg	12.06.19 11:30	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.207	104	70-135	6	35	mg/kg	12.06.19 11:30	
o-Xylene	<0.00200	0.100	0.0941	94	0.101	101	71-133	7	35	mg/kg	12.06.19 11:30	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		100		101		70-130	%	12.06.19 11:30
4-Bromofluorobenzene	93		94		99		70-130	%	12.06.19 11:30

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109695

Parent Sample Id: 645363-010

Matrix: Soil

MS Sample Id: 645363-010 S

Prep Method: SW5030B

Date Prep: 12.06.19

MSD Sample Id: 645363-010 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	0.107	106	0.0886	88	70-130	19	35	mg/kg	12.06.19 12:04	
Toluene	<0.00202	0.101	0.107	106	0.0892	88	70-130	18	35	mg/kg	12.06.19 12:04	
Ethylbenzene	<0.00202	0.101	0.105	104	0.0876	87	71-129	18	35	mg/kg	12.06.19 12:04	
m,p-Xylenes	<0.00403	0.202	0.218	108	0.183	91	70-135	17	35	mg/kg	12.06.19 12:04	
o-Xylene	<0.00202	0.101	0.106	105	0.0894	89	71-133	17	35	mg/kg	12.06.19 12:04	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		99		70-130	%	12.06.19 12:04
4-Bromofluorobenzene	103		98		70-130	%	12.06.19 12:04

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: 2015-003

Houston, TX (281) 240-4300 Dallas, TX (214) 892-0300 San Antonio, TX (210) 509-3304
 Midland, TX (432) 704-5440 Ft. Worth, TX (817) 395-5443 Lubbock, TX (806) 794-1300
 Houston, TX (281) 240-4300 Phoenix, AZ (480) 555-0800 Atlanta, GA (770) 445-0800 Tampa, FL (813) 430-3000

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Project Manager:	Eden Moir	Bill to: or shipping:	Kyle Lillard
Company Name:	L.T. Environmental, Inc. (Petition) office	Company Name:	XTO-Energy
Address:	3800 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432.704.5178	Email:	dmcc@xto.com
Project Name:	Rocky Area CDP	Turn Around:	
Project Number:	015419227	Routine:	☐
P.O. Number:		PUSH: 24hrs	
Sample Name:	Robert McAlister	Due Date:	

SAMPLE RECEIPT	Temp. Equiv.	☒ Yes ☐ No	Wet Ice:	☒ Yes ☐ No
	Temperature (°C)	2.5	Thermometer ID	T-24-007
	Received intact:	☒ Yes ☐ No	Corrected Field:	-0.2
	Cooler Custody Smiles:	Yes ☒ No ☐ N/A	Total Containers:	20
Sample Chain of Custody:	Yes ☒ No ☐ N/A			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA 8016)	BTEX (EPA 8-0021)	Chloride (EPA 300.0)												Sample Comments
B101	S	12/01/09	11:35	1'	1	X	X	X												BTEX detected with background level
B101A			1:40	2'		X	X	X												
B102			1:45	1'		X	X	X												
B102A			1:46	2'		X	X	X												
B103			1:50	1'		X	X	X												
B103A			1:55	1'		X	X	X												
B104			1:55	1'		X	X	X												
B104A			1:59	2'		X	X	X												
B105			12:10	1'		X	X	X												
B105A			12:15	2'		X	X	X												

Total 200.7 / 6010 200.8 / 6020: BRICRA 13PFM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO2 Ha Sr Ti Sn U V Zn
 (Circle Method(s) and Metal(s) to be analyzed) TCLP / SPLP 6010: BRICRA 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 sample ownership is void without company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions to service. Xenco will be liable only for the cost of sample and cost of analysis. 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 \$15,000 will be applied to each project and a charge of \$5 for each sample element in sample, but not analyzed. These terms will be entered 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>	12/1/09 08:30			



Chain of Custody

Work Order No: 1645342

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0390 San Antonio, TX (210) 501-5534
 Mobile TX (409) 704-4444 El Paso, TX (915) 355-3445 Lubbock, TX (806) 754-1296

Atlanta, GA (577) 355-7500 Phoenix, AZ (480) 355-0600 Atlanta, GA (770) 445-8800 Tampa, FL (813) 450-2000

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Project Manager:	Dan Malar	Fill to: (if address)	Kyle Liffel
Company Name:	L.T. Environmental, Inc., Permittal office	Company Name:	XTC-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Melissa, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432 704 5178	Email:	cliffel@xencolab.com or malar@xencolab.com

Project Name:	Rest Draw CDP	Turn Around:	☐ Routine ☒ Rush 24hr
Project Number:	01291829	Routing:	
P.O. Number:		Due Date:	
Sampler's Name:	Robert McAlister		

Temperature (°C)		Temp Blank:	Yes	No	Well log:	Yes	No
Received Inlet:	Yes	No	Corrosion Factor:				
Coder Custom Seal:	Yes	No	Seal Contaminant:				
Sample Custody Seal:	Yes	No					

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EP	BTEX (E	Chloride	Sample Comments									
BH02	S	12/01/11	1230	1'	1	X	X	X	<i>check</i>									
BH06A			1255	2'		X	X	X										
BH07			1240	1'		X	X	X										
BH07A			1245	2'		X	X	X										
BH08			1250	1'		X	X	X										
BH08A			1255	2'		X	X	X										
BH09			1300	1'		X	X	X										
BH09A			1305	2'		X	X	X										
BH10			1310	1'		X	X	X										
BH10A			1315	2'		X	X	X										

Total 200.7 / 6010 200.8 / 6020:

BRCPA 13PPM Texas 11 Al 5b 6a 6b 6c 6d 6e 6f 6g 6h 6i 6j 6k 6l 6m 6n 6o 6p 6q 6r 6s 6t 6u 6v 6w 6x 6y 6z
 Circle Method(s) and Method(s) to be analyzed: TCLP / SPLP 6010 BRCPA 5b 6a 6b 6c 6d 6e 6f 6g 6h 6i 6j 6k 6l 6m 6n 6o 6p 6q 6r 6s 6t 6u 6v 6w 6x 6y 6z

Use: Disposition of this instrument and relinquishment of samples constitutes a valid procedure under Texas state law. It is the responsibility of the sampler to ensure that the instrument is properly calibrated and that the samples are properly labeled and sealed. The sampler is responsible for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of the client. A substitution charge of \$75.00 will be applied to each project and a charge of \$5.00 for each sample submitted to Xenco, Inc. and analyzed. Please refer to the Xenco, Inc. website for more information.

Relinquished by (Signature):	Received by (Signature):	Date/Time:	Relinquished by (Signature):	Received by (Signature):	Date/Time:
		12/01/15 08:30			

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



Chain of Custody

Work Order No: W15943

Houston, TX (281) 240-4200 Dallas, TX (214) 802-0000 San Antonio, TX (210) 504-3334
Midland, TX (432) 704-5449 El Paso, TX (915) 948-5443 Lubbock, TX (806) 794-1200
Houston, TX (281) 240-4200 Phoenix, AZ (480) 355-0000 Atlanta, GA (770) 445-0000 Tampa, FL (813) 420-3000

www.xenco.com

Page 1 of 2

Project Manager:	Don Moir	Bill to (if different):	Kyle Lillard
Company Name:	LT Environmental, Inc. - Permian office	Company Name:	ATO Energy
Address:	3300 North A Street	Address:	
City, State, ZIP:	Midland, TX 79705	City, State, ZIP:	Corpus, NM
Phone:	432.704.5178	Email:	donmoir@xenco.com kyllillard@atoenergy.com

Program: UST/ST	☐ PRP	☐ Brownfields	☐ RC	☐ Unperformed	☐
State of Project:					
Reporting Level: I	☐ Level II	☐ Level III	☐ ST/UST	☐ DEP	☐ Level IV
Deliverables: ETO	☐	Adapt	☐	Other	

Project Name:	Roxs Drive CDF		Turn Around	ANALYSIS REQUEST																Work Order Notes		
Project Number:	012019277		Routing																			
P.O. Number:			Receipt																			
Sampler's Name:	Robert McAttee		Date																			
SAMPLE RECEIPT	Temp Blank	Yes/No	Wet Ice	Yes/No																		
Temperature (°C)	2.5	Thermometer ID																				
Received Impact	Yes/No	Correction Factor																				
Cooler (Quaternary Seal)	Yes/No	Total Containers																				
Sample Custody Seal:	Yes/No	30																				
Sample Identification	Metro	Date	Time	Depth	Number of Containers																	
BH01	S	12/01/19	11:35	1'	1	TPH (EPA 8016)																
BH01A				2'		MTX (EPA 80821)																
BH02				1'		Chloride (EPA 200.8)																
BH02A				2'																		
BH03				1'																		
BH03A				2'																		
BH04				1'																		
BH04A				2'																		
BH05				1'																		
BH05A				2'																		

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13FPM Texas 11	As Ba Be B Cd Ce Cl Co Cr Cu Fe Pb Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn		
Circle Method(s) and Method(s) to be analyzed	TCLEP / SPLP 6010: 8RCRA, Sb As Ba Be Cd Cl Co Cu Pb Mn Mo Ni Se Ag Ti U	1631 / 246.1 / 7470 / 7471 / Hg			
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Robert McAttee</i>	<i>[Signature]</i>	12/19/19 08:30			



Chain of Custody

Work Order No: 1543 3635

Project Manager:	Dan Mott	Bill to: (if different)	Kryo Litel
Company Name	LT Environmental, Inc. Perriman office	Company Name	XTO-Energy
Address	3300 North A Street	Address:	
City, State ZIP	Midland, TX 79705	City, State ZIP	Carlsbad, NM
Phone	432.704.5176	Email	gms@xtoenergy.com jmc@kryolite.com

Project: USTPST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐ State of Project: Reporting Level II ☐ Level III ☐ ST/AST ☐ PRP ☐ Level IV ☐ Deliverables: EDO ☐ ADAPT ☐ Other: ☐			

Project Name:	Rocky Creek	Turn Amount	
Project Number:	0125192374	Route	☐
P.O. Number:		Route	2411
Sampler's Name:	Robert McAttee	Date	
SAMPLE RECEIPT		Temp Blank:	Yes No Well log: Yes No
Temperature (°C):			
Recovery Inlet:	Yes No	Proportioner ID	
Cracklet Catalyst Seals:	Yes No N/A	Correction Factor	
Strength Custody Seal:	Yes No N/A	Total Containers:	
Number of Containers			
(EPA 8018)			
(EPA 8021)			
(EPA 300.0)			
ANALYSIS REQUEST			
Work Order Notes			
(AT) Starts the day received by the lab, if received by a person			

[illegible]

Credit Method(s) and Metallog to be analyzed					
TCLP / SPLP 8010 SRCFA Sb As Ba Bi Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U					
Signature of test document and relinquishment of samples economists a valid purchase order from client company to Zentec, its affiliates and subcontractors. If assignee submit terms and conditions service, Assigner will be liable only for the cost of sampling 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 Zentec. A minimum charge of \$7500 will be applied to each project and a charge of \$5 per sample submitted to Zentec, but not collected. These terms will be endorsed unless previously negotiated.					
Relinquished by: (Signature)	Received by: (Signature)	Date/T time	Relinquished by: (Signature)	Received by: (Signature)	Date/T time
[Signature]	[Signature]	12/16/19 08:30	*		
			n		

Analytical Report 645369

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

09-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



09-DEC-19

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

Reference: XENCO Report No(s): **645369**
Ross Draw CDP
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 645369. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 645369 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in dark ink, appearing to read 'Jessica Kramer', is written over a horizontal line.

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

**Sample Cross Reference 645369****LT Environmental, Inc., Arvada, CO**

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH11	S	12-05-19 12:10	1 ft	645369-001
BH11A	S	12-05-19 12:15	2 ft	645369-002
BH12	S	12-05-19 12:25	1 ft	645369-003
BH12A	S	12-05-19 12:30	2 ft	645369-004
BH13	S	12-05-19 12:35	1 ft	645369-005
BH13A	S	12-05-19 12:41	2 ft	645369-006
BH14	S	12-05-19 12:45	1 ft	645369-007
BH14A	S	12-05-19 12:51	2 ft	645369-008
BH15	S	12-05-19 13:10	1 ft	645369-009
BH15A	S	12-05-19 13:15	2 ft	645369-010
BH16	S	12-05-19 13:20	1 ft	645369-011
BH16A	S	12-05-19 13:25	2 ft	645369-012



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 645369

Report Date: 09-DEC-19
Date Received: 12/06/2019

Sample receipt non conformance and comments:

None

Sample receipt non conformance and comments per sample:

None

Analytical non conformance and comments:

Batch: LBA-3109696 BTEX by EPA 8021B

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

Batch: LBA-3109697 BTEX by EPA 8021B

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

Batch: LBA-3109769 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 645369-003.

Certificate of Analysis Summary 645369



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 09-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	645369-001	645369-002	645369-003	645369-004	645369-005	645369-006
	Field Id:	BH11	BH11A	BH12	BH12A	BH13	BH13A
	Depth:	1- ft	2- ft	1- ft	2- ft	1- ft	2- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Dec-05-19 12:10	Dec-05-19 12:15	Dec-05-19 12:25	Dec-05-19 12:30	Dec-05-19 12:35	Dec-05-19 12:41
BTEX by EPA 8021B	Extracted:	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 11:00
	Analyzed:	Dec-06-19 17:44	Dec-06-19 18:03	Dec-06-19 18:23	Dec-06-19 18:42	Dec-06-19 19:01	Dec-06-19 19:20
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00403 0.00403	<0.00401 0.00401	<0.00399 0.00399	<0.00397 0.00397	<0.00399 0.00399	<0.00399 0.00399
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	Extracted:	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13
	Analyzed:	Dec-06-19 17:39	Dec-06-19 17:45	Dec-06-19 18:04	Dec-06-19 18:10	Dec-06-19 18:16	Dec-06-19 18:22
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		48.6 10.1	182 10.0	21.3 10.0	48.9 10.1	70.6 9.98	45.2 9.94
TPH by SW8015 Mod	Extracted:	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30
	Analyzed:	Dec-06-19 22:47	Dec-06-19 23:07	Dec-06-19 23:07	Dec-06-19 23:27	Dec-06-19 23:27	Dec-06-19 23:47
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<50.3 50.3
Diesel Range Organics (DRO)		<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<50.3 50.3
Total GRO-DRO		<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<50.3 50.3
Total TPH		<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.3 50.3	<50.2 50.2	<50.3 50.3

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 645369



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Dec-06-19 08:30 am

Report Date: 09-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645369-007	645369-008	645369-009	645369-010	645369-011	645369-012
	<i>Field Id:</i>	BH14	BH14A	BH15	BH15A	BH16	BH16A
	<i>Depth:</i>	1- ft	2- ft	1- ft	2- ft	1- ft	2- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-05-19 12:45	Dec-05-19 12:51	Dec-05-19 13:10	Dec-05-19 13:15	Dec-05-19 13:20	Dec-05-19 13:25
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-06-19 11:00	Dec-06-19 11:00	Dec-06-19 15:07	Dec-06-19 15:07	Dec-06-19 15:07	Dec-06-19 15:07
	<i>Analyzed:</i>	Dec-06-19 19:39	Dec-06-19 19:58	Dec-06-19 23:23	Dec-06-19 23:42	Dec-07-19 00:01	Dec-06-19 23:04
	<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	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00398 0.00398	<0.00401 0.00401	<0.00404 0.00404	<0.00402 0.00402	<0.00401 0.00401	<0.00403 0.00403
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 14:13	Dec-06-19 21:22	Dec-06-19 21:22	Dec-06-19 21:22
	<i>Analyzed:</i>	Dec-06-19 18:28	Dec-06-19 18:35	Dec-06-19 18:41	*** ** *	*** ** *	*** ** *
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		68.3 10.0	116 9.98	24.9 9.92	<10.0 10.0	77.8 10.0	<10.1 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30	Dec-06-19 15:30
	<i>Analyzed:</i>	Dec-06-19 23:47	Dec-07-19 00:07	Dec-07-19 00:07	Dec-07-19 00:27	Dec-07-19 00:27	Dec-07-19 02:07
	<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	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.0 50.0
Diesel Range Organics (DRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.0 50.0
Total GRO-DRO		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.0 50.0
Total TPH		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.0 50.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH11** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-001 Date Collected: 12.05.19 12.10 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	48.6	10.1	mg/kg	12.06.19 17.39		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 22.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 22.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 22.47	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 22.47	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 22.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	12.06.19 22.47	
o-Terphenyl	84-15-1	77	%	70-135	12.06.19 22.47	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH11**
Lab Sample Id: 645369-001

Matrix: Soil
Date Collected: 12.05.19 12.10

Date Received: 12.06.19 08.30
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 17.44	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 17.44	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 17.44	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.06.19 17.44	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 17.44	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 17.44	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 17.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.06.19 17.44		
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.06.19 17.44		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH11A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-002 Date Collected: 12.05.19 12.15 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	182	10.0	mg/kg	12.06.19 17.45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 23.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	12.06.19 23.07	
o-Terphenyl	84-15-1	118	%	70-135	12.06.19 23.07	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH11A**
 Lab Sample Id: 645369-002

Matrix: Soil
 Date Collected: 12.05.19 12.15

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 18.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 18.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 18.03	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.06.19 18.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 18.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 18.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 18.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.06.19 18.03		
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.06.19 18.03		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH12** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-003 Date Collected: 12.05.19 12.25 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.3	10.0	mg/kg	12.06.19 18.04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 23.07	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 23.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-135	12.06.19 23.07	
o-Terphenyl	84-15-1	140	%	70-135	12.06.19 23.07	**



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH12**
Lab Sample Id: 645369-003

Matrix: Soil
Date Collected: 12.05.19 12.25

Date Received: 12.06.19 08.30
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 18.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 18.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 18.23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.06.19 18.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 18.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 18.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 18.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.06.19 18.23		
4-Bromofluorobenzene	460-00-4	115	%	70-130	12.06.19 18.23		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH12A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-004 Date Collected: 12.05.19 12.30 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	48.9	10.1	mg/kg	12.06.19 18.10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 23.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 23.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 23.27	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 23.27	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 23.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.06.19 23.27	
o-Terphenyl	84-15-1	96	%	70-135	12.06.19 23.27	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH12A**
 Lab Sample Id: 645369-004

Matrix: Soil
 Date Collected: 12.05.19 12.30

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.06.19 18.42	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.06.19 18.42	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.06.19 18.42	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.06.19 18.42	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.06.19 18.42	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.06.19 18.42	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.06.19 18.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.06.19 18.42		
4-Bromofluorobenzene	460-00-4	118	%	70-130	12.06.19 18.42		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH13** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-005 Date Collected: 12.05.19 12.35 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	70.6	9.98	mg/kg	12.06.19 18.16		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 23.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 23.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 23.27	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 23.27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 23.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	12.06.19 23.27	
o-Terphenyl	84-15-1	117	%	70-135	12.06.19 23.27	



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LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH13**
 Lab Sample Id: 645369-005

Matrix: Soil
 Date Collected: 12.05.19 12.35

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 19.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 19.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 19.01	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.06.19 19.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 19.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 19.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 19.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.06.19 19.01		
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.06.19 19.01		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH13A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-006 Date Collected: 12.05.19 12.41 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	45.2	9.94	mg/kg	12.06.19 18.22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.06.19 23.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.06.19 23.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.06.19 23.47	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.06.19 23.47	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.06.19 23.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	12.06.19 23.47	
o-Terphenyl	84-15-1	120	%	70-135	12.06.19 23.47	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH13A**
 Lab Sample Id: 645369-006

Matrix: Soil
 Date Collected: 12.05.19 12.41

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 19.20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 19.20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 19.20	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.06.19 19.20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 19.20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 19.20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 19.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	89	%	70-130	12.06.19 19.20		
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.06.19 19.20		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH14** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-007 Date Collected: 12.05.19 12.45 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	68.3	10.0	mg/kg	12.06.19 18.28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.06.19 23.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.06.19 23.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.06.19 23.47	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.06.19 23.47	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.06.19 23.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-135	12.06.19 23.47	
o-Terphenyl	84-15-1	82	%	70-135	12.06.19 23.47	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH14**
 Lab Sample Id: 645369-007

Matrix: Soil
 Date Collected: 12.05.19 12.45

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.06.19 19.39	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.06.19 19.39	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.06.19 19.39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.06.19 19.39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.06.19 19.39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.06.19 19.39	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.06.19 19.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.06.19 19.39		
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.06.19 19.39		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH14A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-008 Date Collected: 12.05.19 12.51 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	116	9.98	mg/kg	12.06.19 18.35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.07.19 00.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	133	%	70-135	12.07.19 00.07	
o-Terphenyl	84-15-1	130	%	70-135	12.07.19 00.07	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH14A**
 Lab Sample Id: 645369-008

Matrix: Soil
 Date Collected: 12.05.19 12.51

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 11.00

Basis: Wet Weight

Seq Number: 3109696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.06.19 19.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.06.19 19.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.06.19 19.58	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.06.19 19.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.06.19 19.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.06.19 19.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.06.19 19.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.06.19 19.58		
4-Bromofluorobenzene	460-00-4	111	%	70-130	12.06.19 19.58		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH15** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-009 Date Collected: 12.05.19 13.10 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 14.13 Basis: Wet Weight
 Seq Number: 3109720

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.9	9.92	mg/kg	12.06.19 18.41		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.07.19 00.07	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.07.19 00.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.07.19 00.07	
o-Terphenyl	84-15-1	111	%	70-135	12.07.19 00.07	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH15**
 Lab Sample Id: 645369-009

Matrix: Soil
 Date Collected: 12.05.19 13.10

Date Received: 12.06.19 08.30
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 15.07

Basis: Wet Weight

Seq Number: 3109697

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 23.23	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 23.23	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 23.23	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.06.19 23.23	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 23.23	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 23.23	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 23.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.06.19 23.23		
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.06.19 23.23		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH15A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-010 Date Collected: 12.05.19 13.15 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 21.22 Basis: Wet Weight
 Seq Number: 3109721

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	12.06.19 19.18	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.07.19 00.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	12.07.19 00.27	
o-Terphenyl	84-15-1	109	%	70-135	12.07.19 00.27	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH15A**
 Lab Sample Id: 645369-010

Matrix: Soil
 Date Collected: 12.05.19 13.15

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 15.07

Basis: Wet Weight

Seq Number: 3109697

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.06.19 23.42	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.06.19 23.42	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.06.19 23.42	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.06.19 23.42	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.06.19 23.42	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.06.19 23.42	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.06.19 23.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	70-130	12.06.19 23.42		
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.06.19 23.42		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH16** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-011 Date Collected: 12.05.19 13.20 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 21.22 Basis: Wet Weight
 Seq Number: 3109721

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	77.8	10.0	mg/kg	12.06.19 19.38		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.30 Basis: Wet Weight
 Seq Number: 3109769

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.07.19 00.27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.07.19 00.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	12.07.19 00.27	
o-Terphenyl	84-15-1	91	%	70-135	12.07.19 00.27	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH16**
Lab Sample Id: 645369-011

Matrix: Soil
Date Collected: 12.05.19 13.20

Date Received: 12.06.19 08.30
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 15.07

Basis: Wet Weight

Seq Number: 3109697

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.07.19 00.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.07.19 00.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.07.19 00.01	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.07.19 00.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.07.19 00.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.07.19 00.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.07.19 00.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	12.07.19 00.01		
1,4-Difluorobenzene	540-36-3	95	%	70-130	12.07.19 00.01		



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH16A** Matrix: Soil Date Received: 12.06.19 08.30
 Lab Sample Id: 645369-012 Date Collected: 12.05.19 13.25 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.06.19 21.22 Basis: Wet Weight
 Seq Number: 3109721

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.1	10.1	mg/kg	12.06.19 19.44	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.06.19 15.50 Basis: Wet Weight
 Seq Number: 3109776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.07.19 02.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.07.19 02.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.07.19 02.07	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.07.19 02.07	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.07.19 02.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.07.19 02.07	
o-Terphenyl	84-15-1	117	%	70-135	12.07.19 02.07	



Certificate of Analytical Results 645369

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH16A**
 Lab Sample Id: 645369-012

Matrix: Soil
 Date Collected: 12.05.19 13.25

Date Received: 12.06.19 08.30
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.06.19 15.07

Basis: Wet Weight

Seq Number: 3109697

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.06.19 23.04	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.06.19 23.04	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.06.19 23.04	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.06.19 23.04	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.06.19 23.04	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.06.19 23.04	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.06.19 23.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	12.06.19 23.04		
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.06.19 23.04		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109720

MB Sample Id: 7691887-1-BLK

Matrix: Solid

LCS Sample Id: 7691887-1-BKS

Prep Method: E300P

Date Prep: 12.06.19

LCSD Sample Id: 7691887-1-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	274	110	266	106	90-110	3	20	mg/kg	12.06.19 15:47	

Analytical Method: Chloride by EPA 300

Seq Number: 3109721

MB Sample Id: 7691888-1-BLK

Matrix: Solid

LCS Sample Id: 7691888-1-BKS

Prep Method: E300P

Date Prep: 12.06.19

LCSD Sample Id: 7691888-1-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	260	104	260	104	90-110	0	20	mg/kg	12.06.19 19:06	

Analytical Method: Chloride by EPA 300

Seq Number: 3109720

Parent Sample Id: 645363-001

Matrix: Soil

MS Sample Id: 645363-001 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645363-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	36.5	504	469	86	470	86	90-110	0	20	mg/kg	12.06.19 16:05	X

Analytical Method: Chloride by EPA 300

Seq Number: 3109720

Parent Sample Id: 645363-020

Matrix: Soil

MS Sample Id: 645363-020 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645363-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	270	197	481	107	483	108	90-110	0	20	mg/kg	12.06.19 17:27	

Analytical Method: Chloride by EPA 300

Seq Number: 3109721

Parent Sample Id: 645369-010

Matrix: Soil

MS Sample Id: 645369-010 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645369-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.73	200	217	105	217	106	90-110	0	20	mg/kg	12.06.19 19:25	

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

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

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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109721

Parent Sample Id: 645421-007

Matrix: Soil

MS Sample Id: 645421-007 S

Prep Method: E300P

Date Prep: 12.06.19

MSD Sample Id: 645421-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	126	198	307	91	301	88	90-110	2	20	mg/kg	12.06.19 21:55	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109769

MB Sample Id: 7691876-1-BLK

Matrix: Solid

LCS Sample Id: 7691876-1-BKS

Prep Method: SW8015P

Date Prep: 12.06.19

LCSD Sample Id: 7691876-1-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)	<13.9	1000	839	84	915	92	70-135	9	35	mg/kg	12.06.19 20:27	
Diesel Range Organics (DRO)	22.4	1000	1030	103	1100	110	70-135	7	35	mg/kg	12.06.19 20:27	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	134		131		133		70-135	%	12.06.19 20:27
o-Terphenyl	131		122		128		70-135	%	12.06.19 20:27

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109776

MB Sample Id: 7691883-1-BLK

Matrix: Solid

LCS Sample Id: 7691883-1-BKS

Prep Method: SW8015P

Date Prep: 12.06.19

LCSD Sample Id: 7691883-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	913	91	879	88	70-135	4	35	mg/kg	12.07.19 01:07	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1120	112	70-135	1	35	mg/kg	12.07.19 01:07	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		123		108		70-135	%	12.07.19 01:07
o-Terphenyl	135		123		135		70-135	%	12.07.19 01:07

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109769

Matrix: Solid

MB Sample Id: 7691876-1-BLK

Prep Method: SW8015P

Date Prep: 12.06.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.06.19 20:47	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109776

Matrix: Solid

Prep Method: SW8015P

Date Prep: 12.06.19

MB Sample Id: 7691883-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.07.19 00:47	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109769

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.06.19

Parent Sample Id: 645363-012

MS Sample Id: 645363-012 S

MSD Sample Id: 645363-012 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)	<13.9	1000	1070	107	848	85	70-135	23	35	mg/kg	12.06.19 21:06	
Diesel Range Organics (DRO)	17.2	1000	1240	122	1040	102	70-135	18	35	mg/kg	12.06.19 21:06	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	133		109		70-135	%	12.06.19 21:06
o-Terphenyl	119		109		70-135	%	12.06.19 21:06

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109776

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.06.19

Parent Sample Id: 645361-004

MS Sample Id: 645361-004 S

MSD Sample Id: 645361-004 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	961	95	1000	101	70-135	4	35	mg/kg	12.07.19 01:27	
Diesel Range Organics (DRO)	<50.3	1010	1180	117	1170	118	70-135	1	35	mg/kg	12.07.19 01:27	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		131		70-135	%	12.07.19 01:27
o-Terphenyl	123		120		70-135	%	12.07.19 01:27

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109696

MB Sample Id: 7691892-1-BLK

Matrix: Solid

LCS Sample Id: 7691892-1-BKS

Prep Method: SW5030B

Date Prep: 12.06.19

LCSD Sample Id: 7691892-1-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	0.0980	98	0.0912	91	70-130	7	35	mg/kg	12.06.19 11:29	
Toluene	<0.00200	0.100	0.0989	99	0.0940	94	70-130	5	35	mg/kg	12.06.19 11:29	
Ethylbenzene	<0.00200	0.100	0.0984	98	0.0939	94	71-129	5	35	mg/kg	12.06.19 11:29	
m,p-Xylenes	<0.00400	0.200	0.207	104	0.199	100	70-135	4	35	mg/kg	12.06.19 11:29	
o-Xylene	<0.00200	0.100	0.104	104	0.0997	100	71-133	4	35	mg/kg	12.06.19 11:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		101		70-130	%	12.06.19 11:29
4-Bromofluorobenzene	105		114		117		70-130	%	12.06.19 11:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109697

MB Sample Id: 7691893-1-BLK

Matrix: Solid

LCS Sample Id: 7691893-1-BKS

Prep Method: SW5030B

Date Prep: 12.06.19

LCSD Sample Id: 7691893-1-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	0.0886	89	0.0980	98	70-130	10	35	mg/kg	12.06.19 21:21	
Toluene	<0.00200	0.100	0.0899	90	0.0993	99	70-130	10	35	mg/kg	12.06.19 21:21	
Ethylbenzene	<0.00200	0.100	0.0886	89	0.0977	98	71-129	10	35	mg/kg	12.06.19 21:21	
m,p-Xylenes	<0.00400	0.200	0.188	94	0.207	104	70-135	10	35	mg/kg	12.06.19 21:21	
o-Xylene	<0.00200	0.100	0.0965	97	0.106	106	71-133	9	35	mg/kg	12.06.19 21:21	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		101		103		70-130	%	12.06.19 21:21
4-Bromofluorobenzene	108		118		116		70-130	%	12.06.19 21:21

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109696

Parent Sample Id: 645345-001

Matrix: Soil

MS Sample Id: 645345-001 S

Prep Method: SW5030B

Date Prep: 12.06.19

MSD Sample Id: 645345-001 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	0.100	0.104	104	0.0986	99	70-130	5	35	mg/kg	12.06.19 12:07	
Toluene	<0.00201	0.100	0.106	106	0.0994	100	70-130	6	35	mg/kg	12.06.19 12:07	
Ethylbenzene	<0.00201	0.100	0.104	104	0.0978	98	71-129	6	35	mg/kg	12.06.19 12:07	
m,p-Xylenes	<0.00402	0.201	0.221	110	0.206	104	70-135	7	35	mg/kg	12.06.19 12:07	
o-Xylene	<0.00201	0.100	0.112	112	0.104	104	71-133	7	35	mg/kg	12.06.19 12:07	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		103		70-130	%	12.06.19 12:07
4-Bromofluorobenzene	120		117		70-130	%	12.06.19 12:07

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109697

Parent Sample Id: 645369-012

Matrix: Soil

MS Sample Id: 645369-012 S

Prep Method: SW5030B

Date Prep: 12.06.19

MSD Sample Id: 645369-012 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	0.0774	77	0.0929	92	70-130	18	35	mg/kg	12.06.19 22:00	
Toluene	<0.00201	0.101	0.0781	77	0.0939	93	70-130	18	35	mg/kg	12.06.19 22:00	
Ethylbenzene	<0.00201	0.101	0.0771	76	0.0919	91	71-129	18	35	mg/kg	12.06.19 22:00	
m,p-Xylenes	<0.00402	0.201	0.162	81	0.193	96	70-135	17	35	mg/kg	12.06.19 22:00	
o-Xylene	<0.00201	0.101	0.0837	83	0.0987	98	71-133	16	35	mg/kg	12.06.19 22:00	

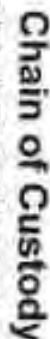
Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		105		70-130	%	12.06.19 22:00
4-Bromofluorobenzene	119		120		70-130	%	12.06.19 22:00

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



Work Order No: 1045367

Houston, TX (281) 240-4200 Dallas, TX (414) 942-0000 San Antonio, TX (210) 506-3333
 Michael, TX (412) 706-5440 El Paso, TX (915) 875-3443 Lubbock, TX (806) 784-1366
 Houston, TX (281) 240-4200 Phoenix, AZ (602) 335-0300 Miami, FL (770) 445-6100 Tampa, FL (813) 281-3333

Page 1 of 6

Project Manager:	Earl Moore	EEI loc. (if address)	Kyle Little
Company Name:	LT Environmental, Inc. - Permian offices	Company Name	XTC-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Clinton, NM
Phone:	432.704.5178	Email:	dmoores@ltc.com moorek@ltc.com

Work Order Comments:			
Program: USTPST	☐ pwp	☐ brownfields	☐ 3c ☐ Superfund
State of Project:			
Reporting Level II	☐ Level III	☐ S1/S1S1	☐ pwp ☐ Level IV ☐
Deliverables: EDO	☐	Adapt	☐ Other

[illegible]

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (E)	BTEX (E)	Chloride	Sample Comments									
EW1	S	12/10/09	1210	1'	1	X	X	X	clear									
EW1A			1215	1'		X	X	X										
EW1C			1225	1'		X	X	X										
EW2A			1230	2'		X	X	X										
EW2C			1238	1'		X	X	X										
EW3A			1241	2'		X	X	X										
EW4			1245	1'		X	X	X										
EW4A			1251	2'		X	X	X										
EW5			1310	1'		X	X	X										
EW5A			1315	2'		X	X	X										

TOTAL	200.7 / 6010	200.8 / 5020:
BRCRA	13PPM Texas 11	N SB AS BA BE B CD CE CR CO CU FE PB MG MN MO NI K Se AG SIO ₂ Na Sr Tl Br U V Zn
TCLP / SPLP 6010:	BRCRA	Sb As Ba Be Cd Cl Ce Cu Pb Mn Mo Ni Se Ag Ti U

Carcinogenic Method(s) and Metabolized to be analyzed

1631 / 245.1 / 7470 / 7471 : Hg
1631 / 245.1 / 7470 / 7471 : Hg

service. Kerner will be liable only for the cost of supplies and staff and incurs no responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Kerner. A no-damage clause of \$75,000 will be applied to each project and a charge of \$5 for each sample submitted to Kerner, but not analyzed. These terms will be indicated within apparently innocuous

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12/6/19 08:30			



Chain of Custody

Work Order No: 445 3661

Houston, TX (281) 240-4310 Dallas, TX (214) 702-0200 San Antonio, TX (210) 505-0334
 Midland, TX (432) 704-4410 El Paso, TX (915) 865-3443 Lubbock, TX (806) 764-1296

Houston, TX (281) 240-4310 Dallas, TX (214) 702-0200 San Antonio, TX (210) 505-0334
 Midland, TX (432) 704-4410 El Paso, TX (915) 865-3443 Lubbock, TX (806) 764-1296

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Project Manager:	Dan Mor	Cell to: (if different)	Kyle Laird
Company Name:	L.T. Environmental, Inc., Permian office	Company Name:	XTO-Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Clarksburg, MD
Phone:	432.704.5178	Email:	dmor@ltdenv.com

Program: UST/PT	☐ Pre	☐ Intermediate	☐ RC	☐ Important
Status of Project:				
Reporting Level:	☐ Level III	☐ UST/UST	☐ SRP	☐ Level IV
Deliverables:	☐ EDI	☐ ADAPT	☐ Other:	

Project Name:	East Plaza CDP	Turn Around	
Project Number:	012419277	Routing	☐
P.O. Number:		Routing	5/1/19
Sample Name:	Robert McAlister	Due Date:	

SAMPLE RECEIPT				ANALYSIS REQUEST				Work Order Notes	
Temperature (°C)	Temp Blank	Yes	No	Wet Ion	Yes	No	TAT starts the day received by the lab. & received by 4:30pm Sample Constituents Lead Arsenic		
Received Initial	Yes	No	Yes	No					
Crocker Quality Seal	Yes	No	Yes	No					
Sample Casing Seal	Yes	No	Yes	No					
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers				
BH 12	S	4/19/19	15:00	1'	1	1	1	1	1
BH 14	S	4/19/19	15:00	2'	1	1	1	1	1

Total 200.7 / 6010 200.8 / 6020: BRCCRA 13PPLM Texas 11 N Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SKOZ NH Sr Ti Sn U V Zn
 Circle Method(s) and Material(s) to be analyzed: TCPLP / 5PPLP 6010, BRCCRA Sb As Ba Be B Cd Ca Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 246.1 / 7470 / 7471 Hg

Signature of this document and relinquishment of sampling constitutes a valid purchase order from client to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions. Xenco will be liable only for the cost of samples and does not assume any responsibility for any losses or expenses incurred by the client if such losses are not to be reimbursed by the client. A minimum charge of \$75.00 will be applied to each project and a charge of \$5.00 per each sample submitted to Xenco, but the amount stated herein will be sufficient unless previously agreed.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
[Signature]	[Signature]	2/19/19 08:30			



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12/06/2019 08:30:00 AM

Work Order #: 645369

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)?	2.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 12/06/2019

Checklist reviewed by:

Jessica Kramer

Date: 12/06/2019



10-DEC-19

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **645522**

Ross Draw CDP-PIT Sample

Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 645522. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 645522 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in dark ink, appearing to read 'Jessica Kramer', is written over a horizontal line.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 645522

LT Environmental, Inc., Arvada, CO

Ross Draw CDP-PIT Sample

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	12-06-19 16:00	0.5 ft	645522-001



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP-PIT Sample

Project ID: 012919277

Work Order Number(s): 645522

Report Date: 10-DEC-19

Date Received: 12/09/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 645522



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP-PIT Sample

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-09-19 08:50 am

Report Date: 10-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	645522-001					
	Field Id:	SS01					
	Depth:	0.5- ft					
	Matrix:	SOIL					
	Sampled:	Dec-06-19 16:00					
Chloride by EPA 300	Extracted:	Dec-09-19 16:10					
	Analyzed:	Dec-09-19 18:11					
	Units/RL:	mg/kg RL					
Chloride		<9.98 9.98					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
 The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
 XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
 Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Version: 1.9%

Jessica Kramer
Project Assistant

**Certificate of Analytical Results 645522****LT Environmental, Inc., Arvada, CO****Ross Draw CDP-PIT Sample**

Sample Id: **SS01**
Lab Sample Id: 645522-001

Matrix: Soil
Date Collected: 12.06.19 16.00

Date Received: 12.09.19 08.50
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 16.10

Basis: Wet Weight

Seq Number: 3109906

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	12.09.19 18.11	U	1



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.
Ross Draw CDP-PIT Sample

Analytical Method: Chloride by EPA 300

Seq Number: 3109906

MB Sample Id: 7692026-1-BLK

Matrix: Solid

LCS Sample Id: 7692026-1-BKS

Prep Method: E300P

Date Prep: 12.09.19

LCSD Sample Id: 7692026-1-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	260	104	263	105	90-110	1	20	mg/kg	12.09.19 18:00	

Analytical Method: Chloride by EPA 300

Seq Number: 3109906

Parent Sample Id: 645522-001

Matrix: Soil

MS Sample Id: 645522-001 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645522-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.14	199	210	102	209	102	90-110	0	20	mg/kg	12.09.19 18:17	

Analytical Method: Chloride by EPA 300

Seq Number: 3109906

Parent Sample Id: 645537-003

Matrix: Soil

MS Sample Id: 645537-003 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645537-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	110	199	327	109	328	110	90-110	0	20	mg/kg	12.09.19 19:38	

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: 645522

Houston, TX (281) 240-4200 Dallas, TX (214) 485-6000 San Antonio, TX (210) 505-3334
McAllen, TX (361) 294-5440 El Paso, TX (957) 995-3443 Lubbock, TX (806) 794-1330

Irving, TX (972) 385-7333 Phoenix, AZ (602) 565-6000 Atlanta, GA (770) 449-8800 Tampa, FL (813) 820-3000

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Project Manager:	Dan Moir	Cell (or alternate):	Kyle Little
Company Name:	L.T. Environmental, Inc., Portland office	Company Name:	KTO Energy
Address:	3320 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432.704.5178	Email:	dmoir@ltenv.com jrogers@ktoenergy.com

Work Order Comments	
Program: UST/PSI	☐ HSP ☐ pretestfields ☐ KC ☐ Superfund ☐
State of Project:	
Reporting Level: I	☐ Level III ☐ RST/UST ☐ RPS ☐ Level IV ☐
Deliverables: EDD	☐ ADAPT ☐ Other:

Project Name:	Recessed CDP - PITS Sample	Turn Around	
Project Number:	012919277	Rollout	☐
P.O. Number:		Rush	☒
Sample Name:	Robert McAlister	Due Date:	

SAMPLE RECEIPT	Temp Blank:	☒ Yes ☐ No	Wet Ice:	☐ Yes ☒ No
	Temperature (°C):	3.5	Thermometer ID	TN007
	Recessed Insert:	☒ Yes ☐ No	Correction Factor:	-0.2
	Color Custody Seal:	Yes ☒ No ☐ N/A	Total Containers:	1
	Sample Custody Seal:	Yes ☒ No ☐ N/A		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	STEX (EPA 8-8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST	Work Order Notes
5501	S	2/24/19	1:00	0.5'	1			X		

Total 200.7 / 6010 200.8 / 6020: BRORA 13P/M Toxus 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 BRORA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
1601 / 245.1 / 7470 / 7471 Hg

Refined/Quoted by: (Signature)	Received by: (Signature)	Date/Time	Refined/Quoted by: (Signature)	Received by: (Signature)	Date/Time
		2/24/19 08:50			

Analytical Report 645524

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

10-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



10-DEC-19

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

Reference: XENCO Report No(s): **645524**
Ross Draw CDP
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 645524. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 645524 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in dark ink, appearing to read 'Jessica Kramer', is written over a horizontal line.

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 645524

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH17	S	12-06-19 14:04	1 ft	645524-001
BH17A	S	12-06-19 14:35	2 ft	645524-002



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 645524

Report Date: 10-DEC-19
Date Received: 12/09/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109891 BTEX by EPA 8021B

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

Certificate of Analysis Summary 645524



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-09-19 08:50 am

Report Date: 10-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	645524-001	645524-002				
	Field Id:	BH17	BH17A				
	Depth:	1- ft	2- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Dec-06-19 14:04	Dec-06-19 14:35				
BTEX by EPA 8021B	Extracted:	Dec-09-19 08:50	Dec-09-19 08:50				
	Analyzed:	Dec-09-19 17:04	Dec-09-19 17:23				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00198 0.00198	<0.00198 0.00198				
Toluene		<0.00198 0.00198	<0.00198 0.00198				
Ethylbenzene		<0.00198 0.00198	<0.00198 0.00198				
m,p-Xylenes		<0.00397 0.00397	<0.00395 0.00395				
o-Xylene		<0.00198 0.00198	<0.00198 0.00198				
Total Xylenes		<0.00198 0.00198	<0.00198 0.00198				
Total BTEX		<0.00198 0.00198	<0.00198 0.00198				
Chloride by EPA 300	Extracted:	Dec-09-19 16:10	Dec-09-19 16:10				
	Analyzed:	Dec-09-19 18:28	Dec-09-19 18:34				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		346 10.0	169 10.0				
TPH by SW8015 Mod	Extracted:	Dec-09-19 15:30	Dec-09-19 15:30				
	Analyzed:	Dec-09-19 21:10	Dec-09-19 21:30				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3	<49.9 49.9				
Diesel Range Organics (DRO)		<50.3 50.3	<49.9 49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<49.9 49.9				
Total GRO-DRO		<50.3 50.3	<49.9 49.9				
Total TPH		<50.3 50.3	<49.9 49.9				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
 The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
 XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
 Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 645524

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH17** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645524-001 Date Collected: 12.06.19 14.04 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 16.10 Basis: Wet Weight
 Seq Number: 3109906

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	346	10.0	mg/kg	12.09.19 18.28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 15.30 Basis: Wet Weight
 Seq Number: 3109933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.09.19 21.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.09.19 21.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.09.19 21.10	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.09.19 21.10	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.09.19 21.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.09.19 21.10	
o-Terphenyl	84-15-1	115	%	70-135	12.09.19 21.10	



Certificate of Analytical Results 645524

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH17**
 Lab Sample Id: 645524-001

Matrix: Soil
 Date Collected: 12.06.19 14.04

Date Received: 12.09.19 08.50
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 08.50

Basis: Wet Weight

Seq Number: 3109891

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.09.19 17.04	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.09.19 17.04	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.09.19 17.04	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.09.19 17.04	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.09.19 17.04	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.09.19 17.04	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.09.19 17.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	12.09.19 17.04		
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.09.19 17.04		



Certificate of Analytical Results 645524

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH17A** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645524-002 Date Collected: 12.06.19 14.35 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 16.10 Basis: Wet Weight
 Seq Number: 3109906

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	169	10.0	mg/kg	12.09.19 18.34		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 15.30 Basis: Wet Weight
 Seq Number: 3109933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.09.19 21.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.09.19 21.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.09.19 21.30	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.09.19 21.30	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.09.19 21.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.09.19 21.30	
o-Terphenyl	84-15-1	104	%	70-135	12.09.19 21.30	



Certificate of Analytical Results 645524

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BH17A**
 Lab Sample Id: 645524-002

Matrix: Soil
 Date Collected: 12.06.19 14.35

Date Received: 12.09.19 08.50
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 08.50

Basis: Wet Weight

Seq Number: 3109891

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.09.19 17.23	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.09.19 17.23	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.09.19 17.23	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	12.09.19 17.23	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.09.19 17.23	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.09.19 17.23	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.09.19 17.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	12.09.19 17.23		
1,4-Difluorobenzene	540-36-3	92	%	70-130	12.09.19 17.23		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109906

MB Sample Id: 7692026-1-BLK

Matrix: Solid

LCS Sample Id: 7692026-1-BKS

Prep Method: E300P

Date Prep: 12.09.19

LCSD Sample Id: 7692026-1-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	260	104	263	105	90-110	1	20	mg/kg	12.09.19 18:00	

Analytical Method: Chloride by EPA 300

Seq Number: 3109906

Parent Sample Id: 645522-001

Matrix: Soil

MS Sample Id: 645522-001 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645522-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.14	199	210	102	209	102	90-110	0	20	mg/kg	12.09.19 18:17	

Analytical Method: Chloride by EPA 300

Seq Number: 3109906

Parent Sample Id: 645537-003

Matrix: Soil

MS Sample Id: 645537-003 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645537-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	110	199	327	109	328	110	90-110	0	20	mg/kg	12.09.19 19:38	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109933

MB Sample Id: 7692045-1-BLK

Matrix: Solid

LCS Sample Id: 7692045-1-BKS

Prep Method: SW8015P

Date Prep: 12.09.19

LCSD Sample Id: 7692045-1-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)	<13.9	1000	996	100	999	100	70-135	0	35	mg/kg	12.09.19 19:49	
Diesel Range Organics (DRO)	<11.5	1000	1110	111	1050	105	70-135	6	35	mg/kg	12.09.19 19:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		121		119		70-135	%	12.09.19 19:49
o-Terphenyl	108		124		112		70-135	%	12.09.19 19:49

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109933

Matrix: Solid

MB Sample Id: 7692045-1-BLK

Prep Method: SW8015P

Date Prep: 12.09.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.09.19 19:49	

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

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

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109933

Parent Sample Id: 645527-020

Matrix: Soil

MS Sample Id: 645527-020 S

Prep Method: SW8015P

Date Prep: 12.09.19

MSD Sample Id: 645527-020 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)	<13.9	1000	985	99	957	96	70-135	3	35	mg/kg	12.09.19 20:29	
Diesel Range Organics (DRO)	<11.5	1000	1020	102	1060	106	70-135	4	35	mg/kg	12.09.19 20:29	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		116		70-135	%	12.09.19 20:29
o-Terphenyl	115		118		70-135	%	12.09.19 20:29

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109891

MB Sample Id: 7692016-1-BLK

Matrix: Solid

LCS Sample Id: 7692016-1-BKS

Prep Method: SW5030B

Date Prep: 12.09.19

LCSD Sample Id: 7692016-1-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	0.0914	91	70-130	11	35	mg/kg	12.09.19 10:47	
Toluene	<0.00200	0.100	0.104	104	0.0922	92	70-130	12	35	mg/kg	12.09.19 10:47	
Ethylbenzene	<0.00200	0.100	0.104	104	0.0913	91	71-129	13	35	mg/kg	12.09.19 10:47	
m,p-Xylenes	<0.00400	0.200	0.220	110	0.194	97	70-135	13	35	mg/kg	12.09.19 10:47	
o-Xylene	<0.00200	0.100	0.111	111	0.0975	98	71-133	13	35	mg/kg	12.09.19 10:47	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		101		70-130	%	12.09.19 10:47
4-Bromofluorobenzene	107		116		115		70-130	%	12.09.19 10:47

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109891

Parent Sample Id: 645473-001

Matrix: Soil

MS Sample Id: 645473-001 S

Prep Method: SW5030B

Date Prep: 12.09.19

MSD Sample Id: 645473-001 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	0.0936	94	0.0775	78	70-130	19	35	mg/kg	12.09.19 11:25	
Toluene	<0.00200	0.100	0.0987	99	0.0768	77	70-130	25	35	mg/kg	12.09.19 11:25	
Ethylbenzene	<0.00200	0.100	0.0988	99	0.0740	74	71-129	29	35	mg/kg	12.09.19 11:25	
m,p-Xylenes	<0.00400	0.200	0.206	103	0.151	76	70-135	31	35	mg/kg	12.09.19 11:25	
o-Xylene	<0.00200	0.100	0.106	106	0.0784	79	71-133	30	35	mg/kg	12.09.19 11:25	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		70-130	%	12.09.19 11:25
4-Bromofluorobenzene	121		118		70-130	%	12.09.19 11:25

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.:

645524

Houston, TX (281) 740-4700 (online) X 2746 807-5200 San Antonio, TX (210) 556-3333
 Midland, TX (432) 704-5440 El Paso, TX (915) 695-5410 Lubbock, TX (806) 796-6200
 Houston, NM (505) 385-1500 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 443-0800 Tampa, FL (813) 281-1100

With words from _____ Page 1 of 1

Project Manager:		Don McEl	Call to: if needed	Style Label
Company Name:		L.T. Environmental, Inc., Parramatta office	Company Name:	XTO Energy
Address:		3300 North A Street	Address:	
City, State ZIP:		Mulberry, TX 75706	City, State ZIP:	Carlsbad, NM
Phone:		432.704.5178	Email:	don@xtoenergy.com

Work Order Comments				
Programs: ☐ US1PST ☐ PRP ☐ groundwater ☐ inc ☐ Superfund ☐				
State of Project:				
Reporting Level II ☐ Level III ☐ PRP ☐ Level IV ☐				
Delineations: ESD ☐ ADAPT ☐ Other:				

Project Name:	Rust Palace CDP	Turn Around:	
Project Number:	D1001827	Route:	☐
P.O. Number:		Rush:	20%
Sampler's Name:	Robert McVee	Date:	

SAMPLE RECEIPT					
Temperature (°C):	3.5	Temp Blank:	Yes No	Well loc:	Yes No
Borehole Intact:	Yes No	Thermometer ID:			
Cooler Capacity Secured:	Yes No N/A	Connection Factor:			
Sample Clarity Scale:	Yes No N/A	Total Containers:			3

ANALYSIS REQUEST									Work Order Notes
# of Containers									
(A B-15)									
(PA D-8021)									
(EPA 306.0)									
EAT marks the day received by the lab. If received by 4:30pm									

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (BP)	BTEX (E)	Chloride	Sample Comments
B417	S	12/6/19	1001	1'	1	X	X	X	discuss
B417A	S	12/6/19	1435	2'	1	X	X	X	discuss

Total 200.7 / 6010	200.8 / 6020

Circle Method(s) and Maturity to be analyzed

61631/245.4/7470/74
 TC/P/SPEP 6010 61RCRA Sb As Ba Be Cd Cr Co Cu Fe Pb Mn Mo Ni Se Ag Ti U
 61RCRA 131PM Taxes 11 N Sb As Ba Bi B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SO2 Na Sr Ti Sn U V Zn

1631 / 245.1 / 7470 / 7471 Hg

Kennel: All the models only have the cost of samples and effort not assuming any responsibility for any lawyers or corporate counsel by the client if such litigation are due to circumstances beyond the control of EIT-DF will be applied to each project at a charge of \$4 per each database submitted by Kennel. Your initial will be submitted within promptly requested.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		12/8/19 08:50			

Analytical Report 645526

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

10-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



10-DEC-19

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

Reference: XENCO Report No(s): **645526**
Ross Draw CDP
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 645526. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 645526 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 645526

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH07	S	12-06-19 10:05	1.5 ft	645526-001
PH07A	S	12-06-19 10:10	2 ft	645526-002
PH07B	S	12-06-19 10:20	3 ft	645526-003
PH07C	S	12-06-19 10:30	4 ft	645526-004



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277

Work Order Number(s): 645526

Report Date: 10-DEC-19

Date Received: 12/09/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 645526



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-09-19 08:50 am

Report Date: 10-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	645526-001	645526-002	645526-003	645526-004		
	Field Id:	PH07	PH07A	PH07B	PH07C		
	Depth:	1.5- ft	2- ft	3- ft	4- ft		
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	Dec-06-19 10:05	Dec-06-19 10:10	Dec-06-19 10:20	Dec-06-19 10:30		
Chloride by EPA 300	Extracted:	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03		
	Analyzed:	Dec-09-19 17:19	Dec-09-19 17:25	Dec-09-19 17:31	Dec-09-19 17:37		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		50.4 9.98	403 9.96	554 9.92	544 9.98		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
 The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
 XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
 Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant

**Certificate of Analytical Results 645526****LT Environmental, Inc., Arvada, CO****Ross Draw CDP**

Sample Id: **PH07**
Lab Sample Id: 645526-001

Matrix: Soil
Date Collected: 12.06.19 10.05

Date Received: 12.09.19 08.50
Sample Depth: 1.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 10.03

Basis: Wet Weight

Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.4	9.98	mg/kg	12.09.19 17.19		1



Certificate of Analytical Results 645526

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **PH07A** Matrix: Soil Date Received: 12.09.19 08.50
Lab Sample Id: 645526-002 Date Collected: 12.06.19 10.10 Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	403	9.96	mg/kg	12.09.19 17.25		1



Certificate of Analytical Results 645526

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **PH07B** Matrix: Soil Date Received: 12.09.19 08.50
Lab Sample Id: 645526-003 Date Collected: 12.06.19 10.20 Sample Depth: 3 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	554	9.92	mg/kg	12.09.19 17.31		1

**Certificate of Analytical Results 645526****LT Environmental, Inc., Arvada, CO****Ross Draw CDP**

Sample Id: **PH07C**
Lab Sample Id: 645526-004

Matrix: Soil
Date Collected: 12.06.19 10.30

Date Received: 12.09.19 08.50
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 10.03

Basis: Wet Weight

Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	544	9.98	mg/kg	12.09.19 17.37		1



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109899

MB Sample Id: 7692025-1-BLK

Matrix: Solid

LCS Sample Id: 7692025-1-BKS

Prep Method: E300P

Date Prep: 12.09.19

LCSD Sample Id: 7692025-1-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	273	109	90-110	4	20	mg/kg	12.09.19 14:20	

Analytical Method: Chloride by EPA 300

Seq Number: 3109899

Parent Sample Id: 645527-008

Matrix: Soil

MS Sample Id: 645527-008 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645527-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	755	198	964	106	972	109	90-110	1	20	mg/kg	12.09.19 14:37	

Analytical Method: Chloride by EPA 300

Seq Number: 3109899

Parent Sample Id: 645527-020

Matrix: Soil

MS Sample Id: 645527-020 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645527-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	555	198	762	105	773	108	90-110	1	20	mg/kg	12.09.19 15:58	

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 N

645537 645520

Houston, TX (214) 249-6700 | Dallas, TX (214) 800-0250 | San Antonio, TX (214) 504-3333
 Midwest, TX (432) 704-5440 | El Paso, TX (915) 885-3443 | Lubbock, TX (806) 770-1226

Habib, M. (1979, Dec. 1950) *Freemasonry*. AZ (493-335-0000), Atlanta, GA (770-441-8800). Tampa, FL (813-670-2001)

Page 91

Project Manager:		Don Mole	File No. (if attached)	Kylo Level
Company Name:		U. I. Environmental, Inc., Pharmacy office	Company Name:	XTO-Energy
Address:		3300 North A Street	Address:	
City, State ZIP:		Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:		432-704-5178	Email:	donmole@uie.com

Work Order Comments				
Program: UST/ST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐ State of Project: Reporting Level II ☐ Level III ☐ EUST ☐ PRP ☐ Level IV ☐ Deliverables: EDD ☐ ADAPT ☐ Other:				

[illegible]

Station Identification	Metrix	Date Sampled	Time Sampled	Depth	Number	TPH (%)	BTX	Chloro	Sample Comments
P107	S	12/10/19	1005	15'	1			X	
P107A			1010	2'				X	
P107B			1030	3'				X	
P107C			1036	4'				X	

Total	200.7 / 6010	200.8 / 6020

BRCPA 13PFM Trace 11 Al Sb As Bi B Cd Ca Cr Co Cu Fe Pb Mg Mn Ni K Se Ag ZnCu
1631/235.1/7470/74

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

TCLP	SP-EP	6010	BRCRA	SD	AS	BA	BU	CD	CI	CG	CU	FO	MD	ND	NR	OR	PR	TX

1651 / 245.1 / 7470 / 7471-Hg

[illegible]

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12/9/19 08:50			

Revised (and dated) May 2019

Analytical Report 645527

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

10-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



10-DEC-19

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

Reference: XENCO Report No(s): **645527**
Ross Draw CDP
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 645527. 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.

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

Respectfully,

A handwritten signature in dark ink, appearing to read 'Jessica Kramer', is written over a horizontal line.

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS73	S	12-06-19 12:10	1.25 ft	645527-001
FS74	S	12-06-19 11:20	1.25 ft	645527-002
FS75	S	12-06-19 11:25	1.25 ft	645527-003
FS76	S	12-06-19 12:15	1.25 ft	645527-004
FS77	S	12-06-19 12:20	1.25 ft	645527-005
FS78	S	12-06-19 11:30	1.25 ft	645527-006
FS79	S	12-06-19 12:25	1.25 ft	645527-007
FS80	S	12-06-19 11:45	1.25 ft	645527-008
FS81	S	12-06-19 12:35	1.25 ft	645527-009
FS103	S	12-05-19 10:15	0.75 ft	645527-010
FS104	S	12-05-19 10:45	0.75 ft	645527-011
FS105	S	12-05-19 11:05	0.75 ft	645527-012
FS106	S	12-05-19 11:15	0.75 ft	645527-013
FS109	S	12-05-19 12:15	0.75 ft	645527-016
FS110	S	12-05-19 12:25	0.75 ft	645527-017
FS111	S	12-05-19 12:30	0.75 ft	645527-018
FS112	S	12-05-19 15:00	0.75 ft	645527-019
FS113	S	12-05-19 15:05	0.75 ft	645527-020
FS114	S	12-06-19 12:40	0.75 ft	645527-021
FS115	S	12-06-19 12:45	0.75 ft	645527-022
FS116	S	12-06-19 13:30	0.75 ft	645527-023
FS117	S	12-06-19 13:40	0.75 ft	645527-024
FS118	S	12-06-19 13:26	0.5 ft	645527-025
FS119	S	12-06-19 13:45	0.70.55 ft	645527-026
FS107	S	12-05-19 11:20	0.75 ft	Not Analyzed
FS108	S	12-05-19 12:20	0.75 ft	Not Analyzed



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 645527

Report Date: 10-DEC-19
Date Received: 12/09/2019

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3109888 BTEX by EPA 8021B

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

Batch: LBA-3109895 BTEX by EPA 8021B

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

Certificate of Analysis Summary 645527



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-09-19 08:50 am

Report Date: 10-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645527-001	645527-002	645527-003	645527-004	645527-005	645527-006
	<i>Field Id:</i>	FS73	FS74	FS75	FS76	FS77	FS78
	<i>Depth:</i>	1.25- ft	1.25- ft	1.25- ft	1.25- ft	1.25- ft	1.25- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-06-19 12:10	Dec-06-19 11:20	Dec-06-19 11:25	Dec-06-19 12:15	Dec-06-19 12:20	Dec-06-19 11:30
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00
	<i>Analyzed:</i>	Dec-09-19 15:03	Dec-09-19 15:21	Dec-09-19 15:38	Dec-09-19 15:55	Dec-09-19 16:13	Dec-09-19 16:30
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00197 0.00197	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00197 0.00197	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00197 0.00197	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00394 0.00394	<0.00398 0.00398	<0.00399 0.00399	<0.00399 0.00399	<0.00400 0.00400	<0.00398 0.00398
o-Xylene		<0.00197 0.00197	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00197 0.00197	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00197 0.00197	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	Dec-09-19 09:36	Dec-09-19 09:36	Dec-09-19 09:36	Dec-09-19 09:36	Dec-09-19 09:36	Dec-09-19 09:36
	<i>Analyzed:</i>	Dec-09-19 13:21	Dec-09-19 13:28	Dec-09-19 13:33	Dec-09-19 13:39	Dec-09-19 13:45	Dec-09-19 13:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1930 9.82	999 9.88	732 9.98	1050 10.0	870 10.0	733 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00
	<i>Analyzed:</i>	Dec-09-19 15:08	Dec-09-19 15:29	Dec-09-19 15:50	Dec-09-19 15:50	Dec-09-19 16:11	Dec-09-19 16:11
	<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	<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.2 50.2
Diesel Range Organics (DRO)		<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.2 50.2
Total GRO-DRO		<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.2 50.2
Total TPH		<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.2 50.2

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 645527



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-09-19 08:50 am

Report Date: 10-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645527-007	645527-008	645527-009	645527-010	645527-011	645527-012
	<i>Field Id:</i>	FS79	FS80	FS81	FS103	FS104	FS105
	<i>Depth:</i>	1.25- ft	1.25- ft	1.25- ft	0.75- ft	0.75- ft	0.75- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-06-19 12:25	Dec-06-19 11:45	Dec-06-19 12:35	Dec-05-19 10:15	Dec-05-19 10:45	Dec-05-19 11:05
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00
	<i>Analyzed:</i>	Dec-09-19 16:48	Dec-09-19 17:05	Dec-09-19 17:22	Dec-09-19 17:40	Dec-09-19 18:49	Dec-09-19 19:06
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
Toluene		<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
Ethylbenzene		<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
m,p-Xylenes		<0.00404 0.00404	<0.00398 0.00398	<0.00404 0.00404	<0.00398 0.00398	<0.00398 0.00398	<0.00402 0.00402
o-Xylene		<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
Total Xylenes		<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
Total BTEX		<0.00202 0.00202	<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Dec-09-19 09:36	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03
	<i>Analyzed:</i>	Dec-09-19 13:56	Dec-09-19 14:31	Dec-09-19 14:48	Dec-09-19 14:54	Dec-09-19 15:00	Dec-09-19 15:06
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1010 10.0	755 9.88	943 9.92	679 9.94	1310 9.98	963 9.96
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00
	<i>Analyzed:</i>	Dec-09-19 16:31	Dec-09-19 16:31	Dec-09-19 17:27	Dec-09-19 17:27	Dec-09-19 17:47	Dec-09-19 18:07
	<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)		<50.0 50.0	<49.9 49.9	<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.2 50.2
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.2 50.2
Total GRO-DRO		<50.0 50.0	<49.9 49.9	<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.2 50.2
Total TPH		<50.0 50.0	<49.9 49.9	<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.2 50.2

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 645527



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-09-19 08:50 am

Report Date: 10-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	645527-013	645527-016	645527-017	645527-018	645527-019	645527-020
	Field Id:	FS106	FS109	FS110	FS111	FS112	FS113
	Depth:	0.75- ft	0.75- ft	0.75- ft	0.75- ft	0.75- ft	0.75- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Dec-05-19 11:15	Dec-05-19 12:15	Dec-05-19 12:25	Dec-05-19 12:30	Dec-05-19 15:00	Dec-05-19 15:05
BTEX by EPA 8021B	Extracted:	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 12:00
	Analyzed:	Dec-09-19 19:24	Dec-09-19 19:41	Dec-09-19 19:59	Dec-09-19 20:16	Dec-09-19 20:33	Dec-09-19 20:51
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00197 0.00197	<0.00197 0.00197	<0.00198 0.00198
Toluene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00197 0.00197	<0.00197 0.00197	<0.00198 0.00198
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00197 0.00197	<0.00197 0.00197	<0.00198 0.00198
m,p-Xylenes		<0.00397 0.00397	<0.00399 0.00399	<0.00398 0.00398	<0.00394 0.00394	<0.00394 0.00394	<0.00397 0.00397
o-Xylene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00197 0.00197	<0.00197 0.00197	<0.00198 0.00198
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00197 0.00197	<0.00197 0.00197	<0.00198 0.00198
Total BTEX		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00197 0.00197	<0.00197 0.00197	<0.00198 0.00198
Chloride by EPA 300	Extracted:	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03
	Analyzed:	Dec-09-19 15:23	Dec-09-19 15:29	Dec-09-19 15:35	Dec-09-19 15:40	Dec-09-19 15:46	Dec-09-19 15:52
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1290 9.88	1290 9.98	709 9.92	666 9.82	698 9.88	555 9.98
TPH by SW8015 Mod	Extracted:	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 15:30
	Analyzed:	Dec-09-19 18:07	Dec-09-19 18:27	Dec-09-19 18:27	Dec-09-19 18:48	Dec-09-19 18:48	Dec-09-19 20:09
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.2 50.2
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.2 50.2
Total GRO-DRO		<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.2 50.2
Total TPH		<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.2 50.2

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Jessica Kramer
Project Assistant

Certificate of Analysis Summary 645527



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Mon Dec-09-19 08:50 am

Report Date: 10-DEC-19

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	645527-021	645527-022	645527-023	645527-024	645527-025	645527-026
	<i>Field Id:</i>	FS114	FS115	FS116	FS117	FS118	FS119
	<i>Depth:</i>	0.75- ft	0.75- ft	0.75- ft	0.75- ft	0.5- ft	0.70.55- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-06-19 12:40	Dec-06-19 12:45	Dec-06-19 13:30	Dec-06-19 13:40	Dec-06-19 13:26	Dec-06-19 13:45
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-09-19 12:00	Dec-09-19 12:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00
	<i>Analyzed:</i>	Dec-09-19 21:08	Dec-09-19 21:26	Dec-09-19 22:23	Dec-09-19 22:42	Dec-09-19 23:01	Dec-09-19 23:21
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00401 0.00401	<0.00398 0.00398	<0.00400 0.00400	<0.00397 0.00397	<0.00401 0.00401	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03	Dec-09-19 10:03
	<i>Analyzed:</i>	Dec-09-19 16:45	Dec-09-19 16:50	Dec-09-19 16:56	Dec-09-19 17:02	Dec-09-19 17:08	Dec-09-19 17:13
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		907 10.0	1960 9.98	1450 10.1	2300 9.92	22.0 9.90	21.1 9.90
TPH by SW8015 Mod	<i>Extracted:</i>	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 14:00	Dec-09-19 15:30	Dec-09-19 15:30	Dec-09-19 15:30
	<i>Analyzed:</i>	Dec-09-19 19:08	Dec-09-19 19:08	Dec-09-19 19:29	Dec-09-19 20:50	Dec-09-19 20:50	Dec-09-19 21:10
	<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	<50.1 50.1	<50.3 50.3	<50.2 50.2	<50.0 50.0	<50.2 50.2
Diesel Range Organics (DRO)		<50.2 50.2	<50.1 50.1	<50.3 50.3	<50.2 50.2	<50.0 50.0	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.1 50.1	<50.3 50.3	<50.2 50.2	<50.0 50.0	<50.2 50.2
Total GRO-DRO		<50.2 50.2	<50.1 50.1	<50.3 50.3	<50.2 50.2	<50.0 50.0	<50.2 50.2
Total TPH		<50.2 50.2	<50.1 50.1	<50.3 50.3	<50.2 50.2	<50.0 50.0	<50.2 50.2

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Jessica Kramer
Project Assistant



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS73** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-001 Date Collected: 12.06.19 12.10 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 09.36 Basis: Wet Weight
 Seq Number: 3109798

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1930	9.82	mg/kg	12.09.19 13.21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.09.19 15.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.09.19 15.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.09.19 15.08	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.09.19 15.08	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.09.19 15.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.09.19 15.08	
o-Terphenyl	84-15-1	99	%	70-135	12.09.19 15.08	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS73**
 Lab Sample Id: 645527-001

Matrix: Soil
 Date Collected: 12.06.19 12.10

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00197	0.00197	mg/kg	12.09.19 15.03	U	1
Toluene	108-88-3	<0.00197	0.00197	mg/kg	12.09.19 15.03	U	1
Ethylbenzene	100-41-4	<0.00197	0.00197	mg/kg	12.09.19 15.03	U	1
m,p-Xylenes	179601-23-1	<0.00394	0.00394	mg/kg	12.09.19 15.03	U	1
o-Xylene	95-47-6	<0.00197	0.00197	mg/kg	12.09.19 15.03	U	1
Total Xylenes	1330-20-7	<0.00197	0.00197	mg/kg	12.09.19 15.03	U	1
Total BTEX		<0.00197	0.00197	mg/kg	12.09.19 15.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.09.19 15.03		
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.09.19 15.03		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS74** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-002 Date Collected: 12.06.19 11.20 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 09.36 Basis: Wet Weight
 Seq Number: 3109798

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	999	9.88	mg/kg	12.09.19 13.28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 15.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 15.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 15.29	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 15.29	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 15.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.09.19 15.29	
o-Terphenyl	84-15-1	105	%	70-135	12.09.19 15.29	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS74**
 Lab Sample Id: 645527-002

Matrix: Soil
 Date Collected: 12.06.19 11.20

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.09.19 15.21	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 15.21	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 15.21	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 15.21	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 15.21	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 15.21	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 15.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.09.19 15.21		
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.09.19 15.21		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS75** Matrix: **Soil** Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-003 Date Collected: 12.06.19 11.25 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 12.09.19 09.36 Basis: **Wet Weight**
 Seq Number: 3109798

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	732	9.98	mg/kg	12.09.19 13.33		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 12.09.19 14.00 Basis: **Wet Weight**
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 15.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.09.19 15.50	
o-Terphenyl	84-15-1	102	%	70-135	12.09.19 15.50	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS75**
 Lab Sample Id: 645527-003

Matrix: Soil
 Date Collected: 12.06.19 11.25

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.09.19 15.38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.09.19 15.38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.09.19 15.38	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.09.19 15.38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.09.19 15.38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.09.19 15.38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.09.19 15.38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.09.19 15.38		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.09.19 15.38		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS76** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-004 Date Collected: 12.06.19 12.15 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 09.36 Basis: Wet Weight
 Seq Number: 3109798

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1050	10.0	mg/kg	12.09.19 13.39		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 15.50	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 15.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	12.09.19 15.50	
o-Terphenyl	84-15-1	103	%	70-135	12.09.19 15.50	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS76**
 Lab Sample Id: 645527-004

Matrix: Soil
 Date Collected: 12.06.19 12.15

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.09.19 15.55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.09.19 15.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.09.19 15.55	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.09.19 15.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.09.19 15.55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.09.19 15.55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.09.19 15.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.09.19 15.55		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.09.19 15.55		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS77** Matrix: **Soil** Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-005 Date Collected: 12.06.19 12.20 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 12.09.19 09.36 Basis: **Wet Weight**
 Seq Number: 3109798

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	870	10.0	mg/kg	12.09.19 13.45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 12.09.19 14.00 Basis: **Wet Weight**
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.09.19 16.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.09.19 16.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.09.19 16.11	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.09.19 16.11	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.09.19 16.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	12.09.19 16.11	
o-Terphenyl	84-15-1	100	%	70-135	12.09.19 16.11	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS77**
 Lab Sample Id: 645527-005

Matrix: Soil
 Date Collected: 12.06.19 12.20

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.09.19 16.13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.09.19 16.13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.09.19 16.13	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.09.19 16.13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.09.19 16.13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.09.19 16.13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.09.19 16.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.09.19 16.13		
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.09.19 16.13		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS78** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-006 Date Collected: 12.06.19 11.30 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 09.36 Basis: Wet Weight
 Seq Number: 3109798

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	733	10.1	mg/kg	12.09.19 13.51		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 16.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 16.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 16.11	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 16.11	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 16.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	12.09.19 16.11	
o-Terphenyl	84-15-1	104	%	70-135	12.09.19 16.11	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS78**
 Lab Sample Id: 645527-006

Matrix: Soil
 Date Collected: 12.06.19 11.30

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.09.19 16.30	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 16.30	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 16.30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 16.30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 16.30	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 16.30	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 16.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.09.19 16.30		
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.09.19 16.30		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS79** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-007 Date Collected: 12.06.19 12.25 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 09.36 Basis: Wet Weight
 Seq Number: 3109798

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1010	10.0	mg/kg	12.09.19 13.56		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.09.19 16.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.09.19 16.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.09.19 16.31	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.09.19 16.31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.09.19 16.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	12.09.19 16.31	
o-Terphenyl	84-15-1	114	%	70-135	12.09.19 16.31	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS79**
 Lab Sample Id: 645527-007

Matrix: Soil
 Date Collected: 12.06.19 12.25

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.09.19 16.48	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.09.19 16.48	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.09.19 16.48	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.09.19 16.48	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.09.19 16.48	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.09.19 16.48	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.09.19 16.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.09.19 16.48		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.09.19 16.48		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS80** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-008 Date Collected: 12.06.19 11.45 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	755	9.88	mg/kg	12.09.19 14.31		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.09.19 16.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.09.19 16.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.09.19 16.31	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.09.19 16.31	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.09.19 16.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.09.19 16.31	
o-Terphenyl	84-15-1	106	%	70-135	12.09.19 16.31	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS80**
 Lab Sample Id: 645527-008

Matrix: Soil
 Date Collected: 12.06.19 11.45

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.09.19 17.05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 17.05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 17.05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 17.05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 17.05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 17.05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 17.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.09.19 17.05		
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.09.19 17.05		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS81** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-009 Date Collected: 12.06.19 12.35 Sample Depth: 1.25 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	943	9.92	mg/kg	12.09.19 14.48		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 17.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 17.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 17.27	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 17.27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 17.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	12.09.19 17.27	
o-Terphenyl	84-15-1	102	%	70-135	12.09.19 17.27	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS81**
 Lab Sample Id: 645527-009

Matrix: Soil
 Date Collected: 12.06.19 12.35

Date Received: 12.09.19 08.50
 Sample Depth: 1.25 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.09.19 17.22	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.09.19 17.22	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.09.19 17.22	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.09.19 17.22	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.09.19 17.22	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.09.19 17.22	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.09.19 17.22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.09.19 17.22		
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.09.19 17.22		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS103** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-010 Date Collected: 12.05.19 10.15 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	679	9.94	mg/kg	12.09.19 14.54		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.09.19 17.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.09.19 17.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.09.19 17.27	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.09.19 17.27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.09.19 17.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	12.09.19 17.27	
o-Terphenyl	84-15-1	104	%	70-135	12.09.19 17.27	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS103**
 Lab Sample Id: 645527-010

Matrix: Soil
 Date Collected: 12.05.19 10.15

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.09.19 17.40	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 17.40	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 17.40	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 17.40	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 17.40	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 17.40	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 17.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.09.19 17.40		
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.09.19 17.40		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS104** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-011 Date Collected: 12.05.19 10.45 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1310	9.98	mg/kg	12.09.19 15.00		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.09.19 17.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.09.19 17.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.09.19 17.47	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	12.09.19 17.47	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.09.19 17.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	12.09.19 17.47	
o-Terphenyl	84-15-1	104	%	70-135	12.09.19 17.47	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS104**
 Lab Sample Id: 645527-011

Matrix: Soil
 Date Collected: 12.05.19 10.45

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.09.19 18.49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 18.49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 18.49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 18.49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 18.49	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 18.49	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 18.49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	12.09.19 18.49		
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.09.19 18.49		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS105** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-012 Date Collected: 12.05.19 11.05 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	963	9.96	mg/kg	12.09.19 15.06		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 18.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 18.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 18.07	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 18.07	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 18.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	12.09.19 18.07	
o-Terphenyl	84-15-1	99	%	70-135	12.09.19 18.07	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS105**
 Lab Sample Id: 645527-012

Matrix: Soil
 Date Collected: 12.05.19 11.05

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.09.19 19.06	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.09.19 19.06	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.09.19 19.06	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.09.19 19.06	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.09.19 19.06	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.09.19 19.06	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.09.19 19.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	93	%	70-130	12.09.19 19.06		
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.09.19 19.06		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS106** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-013 Date Collected: 12.05.19 11.15 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1290	9.88	mg/kg	12.09.19 15.23		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.09.19 18.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.09.19 18.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.09.19 18.07	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.09.19 18.07	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.09.19 18.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	12.09.19 18.07	
o-Terphenyl	84-15-1	103	%	70-135	12.09.19 18.07	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS106**
 Lab Sample Id: 645527-013

Matrix: Soil
 Date Collected: 12.05.19 11.15

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.09.19 19.24	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.09.19 19.24	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.09.19 19.24	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.09.19 19.24	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.09.19 19.24	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.09.19 19.24	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.09.19 19.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.09.19 19.24		
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.09.19 19.24		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS109** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-016 Date Collected: 12.05.19 12.15 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1290	9.98	mg/kg	12.09.19 15.29		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.09.19 18.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.09.19 18.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.09.19 18.27	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.09.19 18.27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.09.19 18.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.09.19 18.27	
o-Terphenyl	84-15-1	99	%	70-135	12.09.19 18.27	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS109**
 Lab Sample Id: 645527-016

Matrix: Soil
 Date Collected: 12.05.19 12.15

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.09.19 19.41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.09.19 19.41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.09.19 19.41	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.09.19 19.41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.09.19 19.41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.09.19 19.41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.09.19 19.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.09.19 19.41		
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.09.19 19.41		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS110** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-017 Date Collected: 12.05.19 12.25 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	709	9.92	mg/kg	12.09.19 15.35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 18.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 18.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 18.27	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 18.27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 18.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.09.19 18.27	
o-Terphenyl	84-15-1	105	%	70-135	12.09.19 18.27	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS110**
 Lab Sample Id: 645527-017

Matrix: Soil
 Date Collected: 12.05.19 12.25

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.09.19 19.59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 19.59	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 19.59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 19.59	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 19.59	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 19.59	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 19.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.09.19 19.59		
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.09.19 19.59		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS111** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-018 Date Collected: 12.05.19 12.30 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	666	9.82	mg/kg	12.09.19 15.40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 18.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 18.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 18.48	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 18.48	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 18.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	12.09.19 18.48	
o-Terphenyl	84-15-1	102	%	70-135	12.09.19 18.48	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS111**
 Lab Sample Id: 645527-018

Matrix: Soil
 Date Collected: 12.05.19 12.30

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00197	0.00197	mg/kg	12.09.19 20.16	U	1
Toluene	108-88-3	<0.00197	0.00197	mg/kg	12.09.19 20.16	U	1
Ethylbenzene	100-41-4	<0.00197	0.00197	mg/kg	12.09.19 20.16	U	1
m,p-Xylenes	179601-23-1	<0.00394	0.00394	mg/kg	12.09.19 20.16	U	1
o-Xylene	95-47-6	<0.00197	0.00197	mg/kg	12.09.19 20.16	U	1
Total Xylenes	1330-20-7	<0.00197	0.00197	mg/kg	12.09.19 20.16	U	1
Total BTEX		<0.00197	0.00197	mg/kg	12.09.19 20.16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.09.19 20.16		
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.09.19 20.16		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS112** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-019 Date Collected: 12.05.19 15.00 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	698	9.88	mg/kg	12.09.19 15.46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.09.19 18.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.09.19 18.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.09.19 18.48	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.09.19 18.48	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.09.19 18.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.09.19 18.48	
o-Terphenyl	84-15-1	107	%	70-135	12.09.19 18.48	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS112**
 Lab Sample Id: 645527-019

Matrix: Soil
 Date Collected: 12.05.19 15.00

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3109888

Prep Method: SW5030B

% Moisture:

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00197	0.00197	mg/kg	12.09.19 20.33	U	1
Toluene	108-88-3	<0.00197	0.00197	mg/kg	12.09.19 20.33	U	1
Ethylbenzene	100-41-4	<0.00197	0.00197	mg/kg	12.09.19 20.33	U	1
m,p-Xylenes	179601-23-1	<0.00394	0.00394	mg/kg	12.09.19 20.33	U	1
o-Xylene	95-47-6	<0.00197	0.00197	mg/kg	12.09.19 20.33	U	1
Total Xylenes	1330-20-7	<0.00197	0.00197	mg/kg	12.09.19 20.33	U	1
Total BTEX		<0.00197	0.00197	mg/kg	12.09.19 20.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.09.19 20.33		
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.09.19 20.33		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS113** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-020 Date Collected: 12.05.19 15.05 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	555	9.98	mg/kg	12.09.19 15.52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 15.30 Basis: Wet Weight
 Seq Number: 3109933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 20.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 20.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 20.09	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 20.09	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 20.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.09.19 20.09	
o-Terphenyl	84-15-1	115	%	70-135	12.09.19 20.09	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS113**
 Lab Sample Id: 645527-020

Matrix: Soil
 Date Collected: 12.05.19 15.05

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.09.19 20.51	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.09.19 20.51	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.09.19 20.51	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.09.19 20.51	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.09.19 20.51	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.09.19 20.51	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.09.19 20.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.09.19 20.51		
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.09.19 20.51		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS114** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-021 Date Collected: 12.06.19 12.40 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	907	10.0	mg/kg	12.09.19 16.45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 19.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 19.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 19.08	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 19.08	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 19.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	12.09.19 19.08	
o-Terphenyl	84-15-1	110	%	70-135	12.09.19 19.08	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS114**
 Lab Sample Id: 645527-021

Matrix: Soil
 Date Collected: 12.06.19 12.40

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Seq Number: 3109888

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.09.19 21.08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.09.19 21.08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.09.19 21.08	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.09.19 21.08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.09.19 21.08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.09.19 21.08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.09.19 21.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.09.19 21.08		
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.09.19 21.08		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS115** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-022 Date Collected: 12.06.19 12.45 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1960	9.98	mg/kg	12.09.19 16.50		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.09.19 19.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.09.19 19.08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.09.19 19.08	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.09.19 19.08	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.09.19 19.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-135	12.09.19 19.08	
o-Terphenyl	84-15-1	134	%	70-135	12.09.19 19.08	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS115**
 Lab Sample Id: 645527-022

Matrix: Soil
 Date Collected: 12.06.19 12.45

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3109888

Prep Method: SW5030B

% Moisture:

Date Prep: 12.09.19 12.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.09.19 21.26	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 21.26	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 21.26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 21.26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 21.26	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 21.26	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 21.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.09.19 21.26		
4-Bromofluorobenzene	460-00-4	106	%	70-130	12.09.19 21.26		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS116** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-023 Date Collected: 12.06.19 13.30 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1450	10.1	mg/kg	12.09.19 16.56		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 14.00 Basis: Wet Weight
 Seq Number: 3109930

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.09.19 19.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.09.19 19.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.09.19 19.29	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.09.19 19.29	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.09.19 19.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-135	12.09.19 19.29	
o-Terphenyl	84-15-1	129	%	70-135	12.09.19 19.29	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS116**
 Lab Sample Id: 645527-023

Matrix: Soil
 Date Collected: 12.06.19 13.30

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 14.00

Basis: Wet Weight

Seq Number: 3109895

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.09.19 22.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.09.19 22.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.09.19 22.23	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.09.19 22.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.09.19 22.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.09.19 22.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.09.19 22.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.09.19 22.23		
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.09.19 22.23		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS117** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-024 Date Collected: 12.06.19 13.40 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2300	9.92	mg/kg	12.09.19 17.02		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 15.30 Basis: Wet Weight
 Seq Number: 3109933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 20.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 20.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 20.50	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 20.50	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 20.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.09.19 20.50	
o-Terphenyl	84-15-1	105	%	70-135	12.09.19 20.50	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS117**
 Lab Sample Id: 645527-024

Matrix: Soil
 Date Collected: 12.06.19 13.40

Date Received: 12.09.19 08.50
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 14.00

Basis: Wet Weight

Seq Number: 3109895

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.09.19 22.42	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.09.19 22.42	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.09.19 22.42	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.09.19 22.42	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.09.19 22.42	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.09.19 22.42	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.09.19 22.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.09.19 22.42		
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.09.19 22.42		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS118** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-025 Date Collected: 12.06.19 13.26 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.0	9.90	mg/kg	12.09.19 17.08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 15.30 Basis: Wet Weight
 Seq Number: 3109933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.09.19 20.50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.09.19 20.50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.09.19 20.50	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.09.19 20.50	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.09.19 20.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.09.19 20.50	
o-Terphenyl	84-15-1	107	%	70-135	12.09.19 20.50	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS118**
 Lab Sample Id: 645527-025

Matrix: Soil
 Date Collected: 12.06.19 13.26

Date Received: 12.09.19 08.50
 Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 14.00

Basis: Wet Weight

Seq Number: 3109895

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.09.19 23.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.09.19 23.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.09.19 23.01	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.09.19 23.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.09.19 23.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.09.19 23.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.09.19 23.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.09.19 23.01		
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.09.19 23.01		



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS119** Matrix: Soil Date Received: 12.09.19 08.50
 Lab Sample Id: 645527-026 Date Collected: 12.06.19 13.45 Sample Depth: 0.70.55 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.09.19 10.03 Basis: Wet Weight
 Seq Number: 3109899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.1	9.90	mg/kg	12.09.19 17.13		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.09.19 15.30 Basis: Wet Weight
 Seq Number: 3109933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.09.19 21.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.09.19 21.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.09.19 21.10	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.09.19 21.10	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.09.19 21.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.09.19 21.10	
o-Terphenyl	84-15-1	105	%	70-135	12.09.19 21.10	



Certificate of Analytical Results 645527

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS119**
 Lab Sample Id: 645527-026

Matrix: Soil
 Date Collected: 12.06.19 13.45

Date Received: 12.09.19 08.50
 Sample Depth: 0.70.55 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.09.19 14.00

Basis: Wet Weight

Seq Number: 3109895

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.09.19 23.21	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.09.19 23.21	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.09.19 23.21	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.09.19 23.21	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.09.19 23.21	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.09.19 23.21	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.09.19 23.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.09.19 23.21		
4-Bromofluorobenzene	460-00-4	114	%	70-130	12.09.19 23.21		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109798

MB Sample Id: 7691946-1-BLK

Matrix: Solid

LCS Sample Id: 7691946-1-BKS

Prep Method: E300P

Date Prep: 12.09.19

LCSD Sample Id: 7691946-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	262	105	259	104	90-110	1	20	mg/kg	12.09.19 09:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3109899

MB Sample Id: 7692025-1-BLK

Matrix: Solid

LCS Sample Id: 7692025-1-BKS

Prep Method: E300P

Date Prep: 12.09.19

LCSD Sample Id: 7692025-1-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	273	109	90-110	4	20	mg/kg	12.09.19 14:20	

Analytical Method: Chloride by EPA 300

Seq Number: 3109798

Parent Sample Id: 645353-001

Matrix: Soil

MS Sample Id: 645353-001 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645353-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	39.0	200	248	105	236	99	90-110	5	20	mg/kg	12.09.19 10:14	

Analytical Method: Chloride by EPA 300

Seq Number: 3109798

Parent Sample Id: 645473-010

Matrix: Soil

MS Sample Id: 645473-010 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645473-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	109	200	324	108	320	107	90-110	1	20	mg/kg	12.09.19 11:35	

Analytical Method: Chloride by EPA 300

Seq Number: 3109899

Parent Sample Id: 645527-008

Matrix: Soil

MS Sample Id: 645527-008 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645527-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	755	198	964	106	972	109	90-110	1	20	mg/kg	12.09.19 14:37	

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

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

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.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3109899

Parent Sample Id: 645527-020

Matrix: Soil

MS Sample Id: 645527-020 S

Prep Method: E300P

Date Prep: 12.09.19

MSD Sample Id: 645527-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	555	198	762	105	773	108	90-110	1	20	mg/kg	12.09.19 15:58	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109930

MB Sample Id: 7692013-1-BLK

Matrix: Solid

LCS Sample Id: 7692013-1-BKS

Prep Method: SW8015P

Date Prep: 12.09.19

LCSD Sample Id: 7692013-1-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	997	100	939	94	70-135	6	35	mg/kg	12.09.19 14:48	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1020	102	70-135	3	35	mg/kg	12.09.19 14:48	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		119		112		70-135	%	12.09.19 14:48
o-Terphenyl	110		113		114		70-135	%	12.09.19 14:48

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109933

MB Sample Id: 7692045-1-BLK

Matrix: Solid

LCS Sample Id: 7692045-1-BKS

Prep Method: SW8015P

Date Prep: 12.09.19

LCSD Sample Id: 7692045-1-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)	<13.9	1000	996	100	999	100	70-135	0	35	mg/kg	12.09.19 19:49	
Diesel Range Organics (DRO)	<11.5	1000	1110	111	1050	105	70-135	6	35	mg/kg	12.09.19 19:49	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		121		119		70-135	%	12.09.19 19:49
o-Terphenyl	108		124		112		70-135	%	12.09.19 19:49

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109930

Matrix: Solid

MB Sample Id: 7692013-1-BLK

Prep Method: SW8015P

Date Prep: 12.09.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.09.19 14:27	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109933

Matrix: Solid

Prep Method: SW8015P

Date Prep: 12.09.19

MB Sample Id: 7692045-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.09.19 19:49	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109930

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.09.19

Parent Sample Id: 645527-001

MS Sample Id: 645527-001 S

MSD Sample Id: 645527-001 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	1020	101	978	97	70-135	4	35	mg/kg	12.09.19 15:08	
Diesel Range Organics (DRO)	<50.3	1010	1120	111	999	99	70-135	11	35	mg/kg	12.09.19 15:08	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		116		70-135	%	12.09.19 15:08
o-Terphenyl	129		108		70-135	%	12.09.19 15:08

Analytical Method: TPH by SW8015 Mod

Seq Number: 3109933

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.09.19

Parent Sample Id: 645527-020

MS Sample Id: 645527-020 S

MSD Sample Id: 645527-020 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)	<13.9	1000	985	99	957	96	70-135	3	35	mg/kg	12.09.19 20:29	
Diesel Range Organics (DRO)	<11.5	1000	1020	102	1060	106	70-135	4	35	mg/kg	12.09.19 20:29	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	122		116		70-135	%	12.09.19 20:29
o-Terphenyl	115		118		70-135	%	12.09.19 20:29

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. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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.
Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109888

MB Sample Id: 7692015-1-BLK

Matrix: Solid

LCS Sample Id: 7692015-1-BKS

Prep Method: SW5030B

Date Prep: 12.09.19

LCSD Sample Id: 7692015-1-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	0.107	107	0.0950	95	70-130	12	35	mg/kg	12.09.19 13:19	
Toluene	<0.00200	0.100	0.106	106	0.0929	93	70-130	13	35	mg/kg	12.09.19 13:19	
Ethylbenzene	<0.00200	0.100	0.104	104	0.0905	91	71-129	14	35	mg/kg	12.09.19 13:19	
m,p-Xylenes	<0.00400	0.200	0.214	107	0.187	94	70-135	13	35	mg/kg	12.09.19 13:19	
o-Xylene	<0.00200	0.100	0.105	105	0.0922	92	71-133	13	35	mg/kg	12.09.19 13:19	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		101		70-130	%	12.09.19 13:19
4-Bromofluorobenzene	95		99		98		70-130	%	12.09.19 13:19

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109895

MB Sample Id: 7692023-1-BLK

Matrix: Solid

LCS Sample Id: 7692023-1-BKS

Prep Method: SW5030B

Date Prep: 12.09.19

LCSD Sample Id: 7692023-1-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	0.0877	88	0.0960	96	70-130	9	35	mg/kg	12.09.19 20:41	
Toluene	<0.00200	0.100	0.0898	90	0.0982	98	70-130	9	35	mg/kg	12.09.19 20:41	
Ethylbenzene	<0.00200	0.100	0.0889	89	0.0971	97	71-129	9	35	mg/kg	12.09.19 20:41	
m,p-Xylenes	<0.00400	0.200	0.189	95	0.206	103	70-135	9	35	mg/kg	12.09.19 20:41	
o-Xylene	<0.00200	0.100	0.0963	96	0.105	105	71-133	9	35	mg/kg	12.09.19 20:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		102		103		70-130	%	12.09.19 20:41
4-Bromofluorobenzene	109		120		118		70-130	%	12.09.19 20:41

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109888

Parent Sample Id: 645527-001

Matrix: Soil

MS Sample Id: 645527-001 S

Prep Method: SW5030B

Date Prep: 12.09.19

MSD Sample Id: 645527-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0925	93	0.0971	97	70-130	5	35	mg/kg	12.09.19 13:54	
Toluene	<0.00199	0.0996	0.0907	91	0.0956	96	70-130	5	35	mg/kg	12.09.19 13:54	
Ethylbenzene	<0.00199	0.0996	0.0873	88	0.0932	93	71-129	7	35	mg/kg	12.09.19 13:54	
m,p-Xylenes	<0.00398	0.199	0.181	91	0.193	96	70-135	6	35	mg/kg	12.09.19 13:54	
o-Xylene	<0.00199	0.0996	0.0888	89	0.0954	95	71-133	7	35	mg/kg	12.09.19 13:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		100		70-130	%	12.09.19 13:54
4-Bromofluorobenzene	98		99		70-130	%	12.09.19 13:54

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.

Ross Draw CDP

Analytical Method: BTEX by EPA 8021B

Seq Number: 3109895

Parent Sample Id: 645527-023

Matrix: Soil

MS Sample Id: 645527-023 S

Prep Method: SW5030B

Date Prep: 12.09.19

MSD Sample Id: 645527-023 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.101	102	0.0951	94	70-130	6	35	mg/kg	12.09.19 21:19	
Toluene	<0.00199	0.0994	0.102	103	0.0967	96	70-130	5	35	mg/kg	12.09.19 21:19	
Ethylbenzene	<0.00199	0.0994	0.0998	100	0.0947	94	71-129	5	35	mg/kg	12.09.19 21:19	
m,p-Xylenes	<0.00398	0.199	0.210	106	0.200	99	70-135	5	35	mg/kg	12.09.19 21:19	
o-Xylene	<0.00199	0.0994	0.108	109	0.103	102	71-133	5	35	mg/kg	12.09.19 21:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		103		70-130	%	12.09.19 21:19
4-Bromofluorobenzene	119		122		70-130	%	12.09.19 21:19

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:

645527

Houston, TX (call) 280-4310 Dallas, TX (214) 902-0300 San Antonio, TX (714) 508-3334
 Midland, TX (432-704-5440) El Paso, TX (915) 445-4443 Lubbock, TX (806) 794-1206
 Houston, TX (281-352-7000) Phoenix, AZ (480) 353-8000 Austin, TX (772) 445-4440 Tampa, FL (813) 439-0000

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Page 1 of 3

Project Manager:	Dan Moe	Full ID or License:	Wyle Lister
Company Name:	LT Environmental, Inc., Puritan Office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	432-704-5178	Email:	dmoer@xencolab.com wylelister@xencolab.com

Program: UST/ST/PT	☐ PRP	☐ Brownfields	☐ RC	☐ Superfund
State of Project:				
Reporting Level II	☐ Level III	☐ ST/AST	☐ PRP	☐ Level IV
Operator: EEO	☐	Adapt	☐	Other

Project Name:	RCS Raw Cell	Turn Around:	
Project Number:	0191977	Routing:	☐
P.D. Number:		Route:	24/7
Sampler's Name:	Robert McChes	Draw Date:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	3.5	Thermometer ID:	THM007	Correction Factor:	-0.7	
Refrigerant Contact:	Yes	No		Total Containers:	26	
Cooler Custody Seal:	Yes	No				
Sample Custody Seal:	Yes	No				

11 AM

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA 8015)	BTEX (EPA 80021)	Chloride (EPA 809.2)	ANALYSIS REQUEST										Work Order Notes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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Total: 200.7 / 6010 200.8 / 6020: BRCRA 134PM Texas 11 Al Sb As Ba Be B Cd Cs 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 BRCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 / Hg

See Signature at this detector and acknowledgment of analysis results. A valid purchase order from client company to Xenco, the laboratory and subcontractors. It assigns liability, terms and conditions of service. Notices will be sent only for the state of sampling and shall not constitute any responsibility for any notices or responses incurred by the client if such notices are due to circumstances beyond the control of the laboratory. A minimum charge of \$75.00 will be applied to each project and a sample or 15 for each sample submitted to Xenco, and not analyzed. Times listed are for analysis unless previously indicated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Robert McChes		12/9/19 08:50			

Work Order No: 64552-7

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ANALYSIS REQUEST[illegible][illegible]

FS	Station	Angle	Distance	Height	Remarks
FS101	1045	75°	1	X	X
FS102	1105		X	X	X
FS103	1115		X	X	X
FS104	1120		X	X	X
FS105	1220		X	X	X
FS106	1215		X	X	X
FS107	1245		X	X	X
FS108	1250		X	X	X
FS109	1500		X	X	X
FS110	1405		X	X	X
FS111					
FS112					
FS113					

	Total	200.7 / 6010	200.6 / 8020:
GRGFA	TSPFM	Texas 11	A Sb As Bu Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SnO ₂ Na Sr Ti Sn U V Zn

[illegible][illegible]

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

12/9/19	08:50		

Received 11 June 2010; accepted 12 July 2010



Chain of Custody

Work Order No: 645529

Houston, TX (281) 246-4200 Dallas, TX (214) 502-4000 San Antonio, TX (210) 505-3334
 Midland, TX (432) 794-8440 El Paso, TX (915) 595-3443 Lubbock, TX (806) 794-1206
 Fort Worth, TX (817) 335-7552 Phoenix, AZ (480) 505-0000 Atlanta, GA (770) 445-1100 Tampa, FL (813) 628-2007

Website: www.xencolabs.com Email: info@xencolabs.com

Work Order Comments Page 3 of 3

Project Manager:	Dan Mor	Cell No. (if different):	Kyle Littel
Company Name:	L T Environmental, Inc. - Portland office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Portland, OR
Phone:	432.794.5178	Email:	info@xencolabs.com

Project Name:	Rocky Creek CDP	Turn Around:	
Project Number:	012919277	Requies: ☐	
P.O. Number:		Requies: ☐	
Sample Name:	Robert McAfee	Date Date:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):						
Received (Initial):	Yes	No	Wet Ice:	Yes	No	
Cooler Custody Scale:	Yes	No	Wet Ice:	Yes	No	
Sample Custody Scale:	Yes	No	Wet Ice:	Yes	No	

Sample Identification	Match	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8016)	BTEX (EPA 8021)	Chloride (EPA 200.0)	ANALYSIS REQUEST	Work Order Notes
FS114	S	1/16/08	1800	0.75'	1	X	X	X		
FS115			1805			X	X	X		
FS116			1830			X	X	X		
FS117			1840			X	X	X		
FS118			1846	0.5'		X	X	X		
FS119			1845	0.5'		X	X	X		

Total 200.7 / 6010	200.8 / 6020:	BRORA 13PRM Tests 11	Al	Si	As	Ba	Be	B	Ca	Cd	Ce	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Sb	Ag	Se	SiO2	Na	Sr	Ti	Sn	U	V	Zn
Circle Method(s) and Metal(s) to be analyzed:	TCLP / SPLP 6010: BRORA SB AS BA BE CD CR CO CU PD MN MO NI SE AG TI U	1831 / 2405.1 / 7470 / 7471 : 1kg																													

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	2/9/19 08:50			

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12.09.2019 08.50.00 AM

Work Order #: 645527

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T NM 007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	No
#4 *Custody Seals intact on shipping container/ cooler?	No
#5 Custody Seals intact on sample bottles?	No
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	Yes
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes
#18 Water VOC samples have zero headspace?	N/A

Samples 14 and 15 were not present, client was informed.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Martha Castro

Date: 12.09.2019

Checklist reviewed by:



Elizabeth McClellan

Date: 12.09.2019

Analytical Report 645825

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

012919277

12-DEC-19

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



12-DEC-19

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

Reference: XENCO Report No(s): **645825**
Ross Draw CDP
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 645825. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 645825 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in dark ink, appearing to read 'Jessica Kramer', is written over a horizontal line.

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 645825

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS108	S	12-09-19 12:30	0.75 ft	645825-001



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID: 012919277
Work Order Number(s): 645825

Report Date: 12-DEC-19
Date Received: 12/10/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3110075 BTEX by EPA 8021B

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

Certificate of Analysis Summary 645825



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id: 012919277

Contact: Dan Moir

Project Location:

Date Received in Lab: Tue Dec-10-19 04:25 pm

Report Date: 12-DEC-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	645825-001					
	Field Id:	FS108					
	Depth:	0.75- ft					
	Matrix:	SOIL					
	Sampled:	Dec-09-19 12:30					
BTEX by EPA 8021B	Extracted:	Dec-10-19 19:43					
	Analyzed:	Dec-11-19 04:02					
	Units/RL:	mg/kg RL					
Benzene		<0.00189 0.00189					
Toluene		<0.00189 0.00189					
Ethylbenzene		<0.00189 0.00189					
m,p-Xylenes		<0.00377 0.00377					
o-Xylene		<0.00189 0.00189					
Total Xylenes		<0.00189 0.00189					
Total BTEX		<0.00189 0.00189					
Chloride by EPA 300	Extracted:	Dec-11-19 13:54					
	Analyzed:	Dec-11-19 15:33					
	Units/RL:	mg/kg RL					
Chloride		886 98.8					
TPH by SW8015 Mod	Extracted:	Dec-10-19 17:00					
	Analyzed:	Dec-11-19 08:06					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1					
Diesel Range Organics (DRO)		<50.1 50.1					
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1					
Total GRO-DRO		<50.1 50.1					
Total TPH		<50.1 50.1					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 645825

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS108** Matrix: Soil Date Received: 12.10.19 16.25
 Lab Sample Id: 645825-001 Date Collected: 12.09.19 12.30 Sample Depth: 0.75 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 12.11.19 13.54 Basis: Wet Weight
 Seq Number: 3110184

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	886	98.8	mg/kg	12.11.19 15.33		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 12.10.19 17.00 Basis: Wet Weight
 Seq Number: 3110188

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.11.19 08.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.11.19 08.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.11.19 08.06	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.11.19 08.06	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.11.19 08.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	12.11.19 08.06	
o-Terphenyl	84-15-1	76	%	70-135	12.11.19 08.06	



Certificate of Analytical Results 645825

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **FS108**
 Lab Sample Id: 645825-001

Matrix: Soil
 Date Collected: 12.09.19 12.30

Date Received: 12.10.19 16.25
 Sample Depth: 0.75 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 12.10.19 19.43

Basis: Wet Weight

Seq Number: 3110075

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00189	0.00189	mg/kg	12.11.19 04.02	U	1
Toluene	108-88-3	<0.00189	0.00189	mg/kg	12.11.19 04.02	U	1
Ethylbenzene	100-41-4	<0.00189	0.00189	mg/kg	12.11.19 04.02	U	1
m,p-Xylenes	179601-23-1	<0.00377	0.00377	mg/kg	12.11.19 04.02	U	1
o-Xylene	95-47-6	<0.00189	0.00189	mg/kg	12.11.19 04.02	U	1
Total Xylenes	1330-20-7	<0.00189	0.00189	mg/kg	12.11.19 04.02	U	1
Total BTEX		<0.00189	0.00189	mg/kg	12.11.19 04.02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.11.19 04.02		
4-Bromofluorobenzene	460-00-4	117	%	70-130	12.11.19 04.02		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3110184

MB Sample Id: 7692208-1-BLK

Matrix: Solid

LCS Sample Id: 7692208-1-BKS

Prep Method: E300P

Date Prep: 12.11.19

LCSD Sample Id: 7692208-1-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	259	104	262	105	90-110	1	20	mg/kg	12.11.19 12:39	

Analytical Method: Chloride by EPA 300

Seq Number: 3110184

Parent Sample Id: 645890-001

Matrix: Soil

MS Sample Id: 645890-001 S

Prep Method: E300P

Date Prep: 12.11.19

MSD Sample Id: 645890-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9000	200	9160	80	9170	85	90-110	0	20	mg/kg	12.11.19 15:44	X

Analytical Method: TPH by SW8015 Mod

Seq Number: 3110188

MB Sample Id: 7692151-1-BLK

Matrix: Solid

LCS Sample Id: 7692151-1-BKS

Prep Method: SW8015P

Date Prep: 12.10.19

LCSD Sample Id: 7692151-1-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	1010	101	910	91	70-135	10	35	mg/kg	12.11.19 07:46	
Diesel Range Organics (DRO)	<50.0	1000	895	90	866	87	70-135	3	35	mg/kg	12.11.19 07:46	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	79		102		95		70-135	%	12.11.19 07:46			
o-Terphenyl	82		94		94		70-135	%	12.11.19 07:46			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3110188

Matrix: Solid

MB Sample Id: 7692151-1-BLK

Prep Method: SW8015P

Date Prep: 12.10.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.11.19 15:38	

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.

Ross Draw CDP

Analytical Method: TPH by SW8015 Mod

Seq Number: 3110188

Parent Sample Id: 645825-001

Matrix: Soil

MS Sample Id: 645825-001 S

Prep Method: SW8015P

Date Prep: 12.10.19

MSD Sample Id: 645825-001 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)	<49.9	997	906	91	862	86	70-135	5	35	mg/kg	12.11.19 08:06	
Diesel Range Organics (DRO)	<49.9	997	839	84	755	76	70-135	11	35	mg/kg	12.11.19 08:06	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		90		70-135	%	12.11.19 08:06
o-Terphenyl	96		85		70-135	%	12.11.19 08:06

Analytical Method: BTEX by EPA 8021B

Seq Number: 3110075

MB Sample Id: 7692122-1-BLK

Matrix: Solid

LCS Sample Id: 7692122-1-BKS

Prep Method: SW5030B

Date Prep: 12.10.19

LCSD Sample Id: 7692122-1-BSO

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	0.0900	90	0.0860	86	70-130	5	35	mg/kg	12.10.19 23:09	
Toluene	<0.00200	0.100	0.0903	90	0.0806	81	70-130	11	35	mg/kg	12.10.19 23:09	
Ethylbenzene	<0.00200	0.100	0.0882	88	0.0716	72	71-129	21	35	mg/kg	12.10.19 23:09	
m,p-Xylenes	<0.00400	0.200	0.186	93	0.144	72	70-135	25	35	mg/kg	12.10.19 23:09	
o-Xylene	<0.00200	0.100	0.0945	95	0.0763	76	71-133	21	35	mg/kg	12.10.19 23:09	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		103		103		70-130	%	12.10.19 23:09
4-Bromofluorobenzene	109		115		117		70-130	%	12.10.19 23:09

Analytical Method: BTEX by EPA 8021B

Seq Number: 3110075

Parent Sample Id: 645698-010

Matrix: Soil

MS Sample Id: 645698-010 S

Prep Method: SW5030B

Date Prep: 12.10.19

MSD Sample Id: 645698-010 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	0.0788	79	0.0808	81	70-130	3	35	mg/kg	12.10.19 23:47	
Toluene	<0.00200	0.100	0.0773	77	0.0745	75	70-130	4	35	mg/kg	12.10.19 23:47	
Ethylbenzene	<0.00200	0.100	0.0714	71	0.0763	77	71-129	7	35	mg/kg	12.10.19 23:47	
m,p-Xylenes	<0.00401	0.200	0.150	75	0.150	75	70-135	0	35	mg/kg	12.10.19 23:47	
o-Xylene	<0.00200	0.100	0.0769	77	0.0765	77	71-133	1	35	mg/kg	12.10.19 23:47	

Surrogate

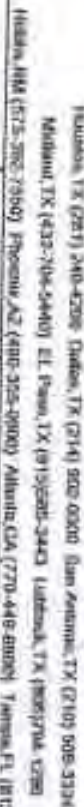
	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		102		70-130	%	12.10.19 23:47
4-Bromofluorobenzene	120		115		70-130	%	12.10.19 23:47

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

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

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:

145825

Project Manager:	Dawn Mohr	(fill in if different)	Kyle Litton
Company Name:	LT Environmental, Inc., Peasminn office	Company Name:	KT O Energy
Address:	3300 North A Street	Address:	
City, State ZIP:	Mallard, TX 79705	City, State ZIP:	Cathart, NM
Phone:	432 704 5178	Email:	dumond@lty.com or mchase@lty.com

S:\SWP_Series\5000 Page 1 of 1
 10-12-2010

Work Order Comments					
Program:	UST/PST	PSP	Brownfields	RC	Superfund
State of Project:					
Reporting Level II	☐ Level III	☐ S/U/AST	☐ PSP	☐ Level IV	☐
Deliverables:	EEO	☐	ADAPT	☐	Other

Project Name:	PA 5015	Turn Around	
Project Number:	0120192774	Routine	☐
P.O. Number:		Result	24/1
Sample's Name:	Robert McAlfee	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	2.0	Temp Blank	Yes No
Received Blank:	Yes No	Thermometer ID	
Detector Calbody Source:	Yes N/A	Correction Factor	-0.2
Sample's Custody Details:	Yes No N/A	Total Containers:	1

ANALYSIS REQUEST										Work Order Notes
of Containers (PA 5015) (PA 5021) (EPA 300.0)										

TAT starts the day received by the lab. If received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (B)	BTX (B)	Chloride	Example Comments
F3725	S	12/1/91	15:00	0.75'	1	+	+	+	Example 4

ac. Signature of this instrument and acknowledgment of sample receipt is a valid purchase order from the company to Kanto. The affiliation and contact address. If analysis standard items and conditions
 extra. Kanto will be liable only for the cost of analysis and will not assume any responsibility for any losses or expenses incurred by the client if such items are due to circumstances beyond the control
 item. A minimum charge of ¥75,000 will be applied to each project and a charge of ¥5 for each sample submitted for X-ray, but not analysis. These items will be collected unless previously negotiated.

Curve Method(s) and Material(s) to be analyzed
 TCLP / SPLP #010 SRCR SB As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Sn Ag Ti U
 1031/245.1/77470/7471 Hg

Requisitioned by (Signature)	Received by (Signature)	Date/Time	Refilled/used by (Signature)	Received by (Signature)	Date/Time
		12/10/19 16:35			

[illegible]



Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 12/10/2019 04:25:00 PM

Work Order #: 645825

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)?	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

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 12/10/2019

Checklist reviewed by:

Jessica Kramer

Date: 12/11/2019

Analytical Report 650280

for
LT Environmental, Inc.

Project Manager: Dan Moir

Ross Draw CDP

27-JAN-20

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

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Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



27-JAN-20

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

Reference: XENCO Report No(s): **650280**
Ross Draw CDP
Project Address:

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 650280. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 650280 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in dark ink, appearing to read 'Jessica Kramer', is written over a horizontal line.

Jessica Kramer
Project Assistant

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Sample Cross Reference 650280

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BG01	S	01-21-20 14:30	0.5 ft	650280-001
BG02	S	01-21-20 14:40	0.5 ft	650280-002



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Ross Draw CDP

Project ID:

Work Order Number(s): 650280

Report Date: 27-JAN-20

Date Received: 01/24/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 650280



LT Environmental, Inc., Arvada, CO

Project Name: Ross Draw CDP

Project Id:

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri Jan-24-20 04:11 pm

Report Date: 27-JAN-20

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	650280-001	650280-002				
	Field Id:	BG01	BG02				
	Depth:	0.5- ft	0.5- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Jan-21-20 14:30	Jan-21-20 14:40				
Chloride by EPA 300	Extracted:	Jan-24-20 19:07	Jan-24-20 19:07				
	Analyzed:	Jan-25-20 15:51	Jan-25-20 15:57				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		2020 19.9	1810 20.1				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Assistant



Certificate of Analytical Results 650280

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BG01** Matrix: Soil Date Received: 01.24.20 16.11
Lab Sample Id: 650280-001 Date Collected: 01.21.20 14.30 Sample Depth: 0.5 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 01.24.20 19.07 Basis: Wet Weight
Seq Number: 3114417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2020	19.9	mg/kg	01.25.20 15.51		2



Certificate of Analytical Results 650280

LT Environmental, Inc., Arvada, CO

Ross Draw CDP

Sample Id: **BG02** Matrix: Soil Date Received: 01.24.20 16.11
Lab Sample Id: 650280-002 Date Collected: 01.21.20 14.40 Sample Depth: 0.5 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 01.24.20 19.07 Basis: Wet Weight
Seq Number: 3114417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1810	20.1	mg/kg	01.25.20 15.57		2



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Ross Draw CDP

Analytical Method: Chloride by EPA 300

Seq Number: 3114417

MB Sample Id: 7695174-1-BLK

Matrix: Solid

LCS Sample Id: 7695174-1-BKS

Prep Method: E300P

Date Prep: 01.24.20

LCSD Sample Id: 7695174-1-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	245	98	247	99	90-110	1	20	mg/kg	01.25.20 14:50	

Analytical Method: Chloride by EPA 300

Seq Number: 3114417

Parent Sample Id: 650265-001

Matrix: Soil

MS Sample Id: 650265-001 S

Prep Method: E300P

Date Prep: 01.24.20

MSD Sample Id: 650265-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	608	402	978	92	938	82	90-110	4	20	mg/kg	01.25.20 15:07	X

Analytical Method: Chloride by EPA 300

Seq Number: 3114417

Parent Sample Id: 650285-004

Matrix: Soil

MS Sample Id: 650285-004 S

Prep Method: E300P

Date Prep: 01.24.20

MSD Sample Id: 650285-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	326	198	524	100	519	97	90-110	1	20	mg/kg	01.25.20 16:25	

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

Work Order No: 650250

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Page 1 of 1

Work Order Comments			
Program: USTRIP	☐ prep	☐ precontract	☐ bc ☐ super fund ☐
State of Project:			
Mapping Level II	☐ level III	☐ FTR/UST	☐ prep ☐ post IV ☐
Conversations EDD	☐	ADRAFT ☐	Official: ☐

SAMPLE RECEIPT			
Temp. Blank	Wet No	Wet Loc	Dry No
Temperature (°C)	1.0		
Revised Insect	Thermometer II		
Revised Insect	100	100	100
Checker's Initials	T - N M - O C T		
Sample's Initials	Correction Factor		
Sample's Initials	-0.2		
Sample's Initials	Total Containers		
Sample's Initials	2		

Number of Containers

A 2015)

PA 0-2321)

(EPA 200.2)

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Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (B)	BTEX (B)	Chloride	Sample Comments
B-01	S	1/21/00	1430	0.5'	1			X	
B-02	S	1/21/00	1440	0.5'	1			X	

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Received by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Authorised by: (Signature)		Refused by: (Signature)	

		4/20/20 12:11		

[illegible]

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 01.24.2020 04.11.00 PM

Work Order #: 650280

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)?	1.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

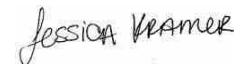
Checklist completed by:



Elizabeth McClellan

Date: 01.24.2020

Checklist reviewed by:



Jessica Kramer

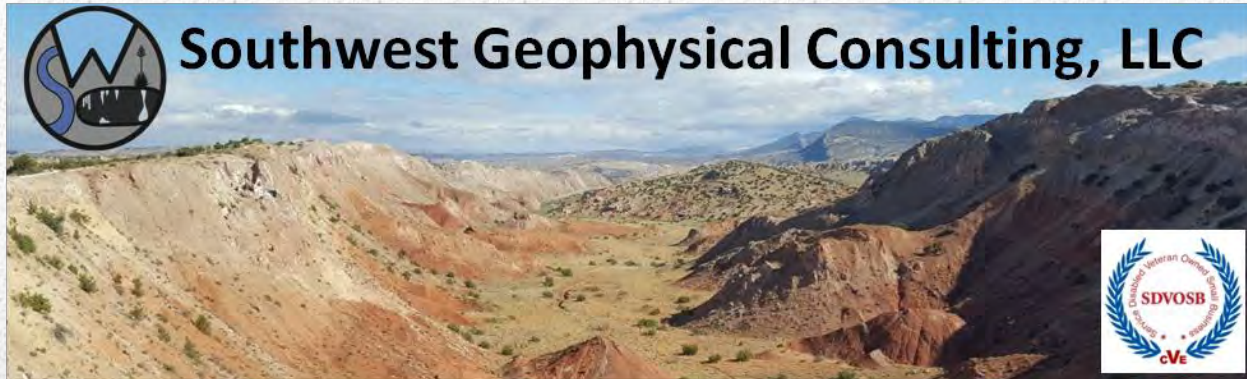
Date: 01.27.2020



APPENDIX B

August 15, 2025

Environmental Karst Study Report



Environmental Karst Study Report XTO Ross Draw CDP Eddy County, New Mexico

**Prepared For:
Ensolum, LLC
3122 National Parks Highway
Carlsbad, NM 88220**

Within 200 feet of the spill delineation boundary:

- ☒ Negative ☐ Positive for surface karst
- ☒ Stable ☐ Unstable Ground
- ☐ Karst Monitor Recommended

August 15, 2025

ENS-016-20250722

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MMXXV

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1.0 INTRODUCTION

This report was commissioned by Ensolum, LLC (hereinafter referred to as "the client"), on July 22, 2025, for the purpose of conducting an environmental karst study within an area encompassing the XTO Ross Draw CDP release site (hereinafter termed "XRDC") centered at N 32.005461° W 103.895734°.

1.1 Goals of this Study

The goals of this study are to conduct a surface karst inventory and provide the client with the location and description of any surface karst features located within 200 feet (61 meters) of the spill delineation boundary (as defined by 19.15.29.12 NMAC^[1]), and to determine whether stable ground exists (as defined by 19.15.2 NMAC Definitions^[2]) within the spill boundary of the XTO Ross Draw CDP release as provided by the client via e-mail (32.00576, -103.896042.kmz) on July 22, 2025, using electrical resistivity imaging^[3].

1.2 Summary of Findings

- **No surface karst features exist within the 200-foot (61-meter) perimeter of the spill delineation boundary.**
- **No anomalies consistent with subsurface air- or water-filled voids were found within the XRDC geophysical survey area, indicating the zone beneath the geophysical survey is not subject to collapse.**
- **Flat-lying stratigraphy is interpreted to exist beneath the area where the geophysical survey was conducted, indicating stable ground.**

1.3 Affected Environment

The XRDC project site is located in evaporite karst terrain, a landform that is characterized by underground drainage through solutionally enlarged conduits. Evaporite karst terrain may contain sinkholes, sinking streams, caves, and springs. Sinkholes leading to underground drainages and voids are common. These karst features, as well as occasional fissures and discontinuities in the bedrock, provide the primary sources for rapid recharge of the groundwater aquifers of the region. Additionally, karst may develop by hypogene processes involving dissolution by upwelling fluids from depth independent of recharge from the overlying or immediately adjacent surface. Hypogene karst systems may not be connected to the surface and can remain undiscovered unless encountered during drilling or excavation.

Karst features are delicate resources that are often of geological, hydrological, biological, and archeological importance, and should be protected. The four primary concerns in these types of terrain are environmental issues, worker safety, equipment damage, and infrastructure integrity.

The Bureau of Land Management (BLM) categorizes all areas within the Carlsbad Field Office (CFO) zone of responsibility as having either low, medium, high, or critical cave potential based on geology, occurrence of known caves, density of karst features, and potential impacts to freshwater aquifers^[4]. These designations are also recognized by the New Mexico State Land Office (NMSLO). This project occurs within a **MEDIUM** karst occurrence zone (MKOZ)^[5] (**Figure 1**).

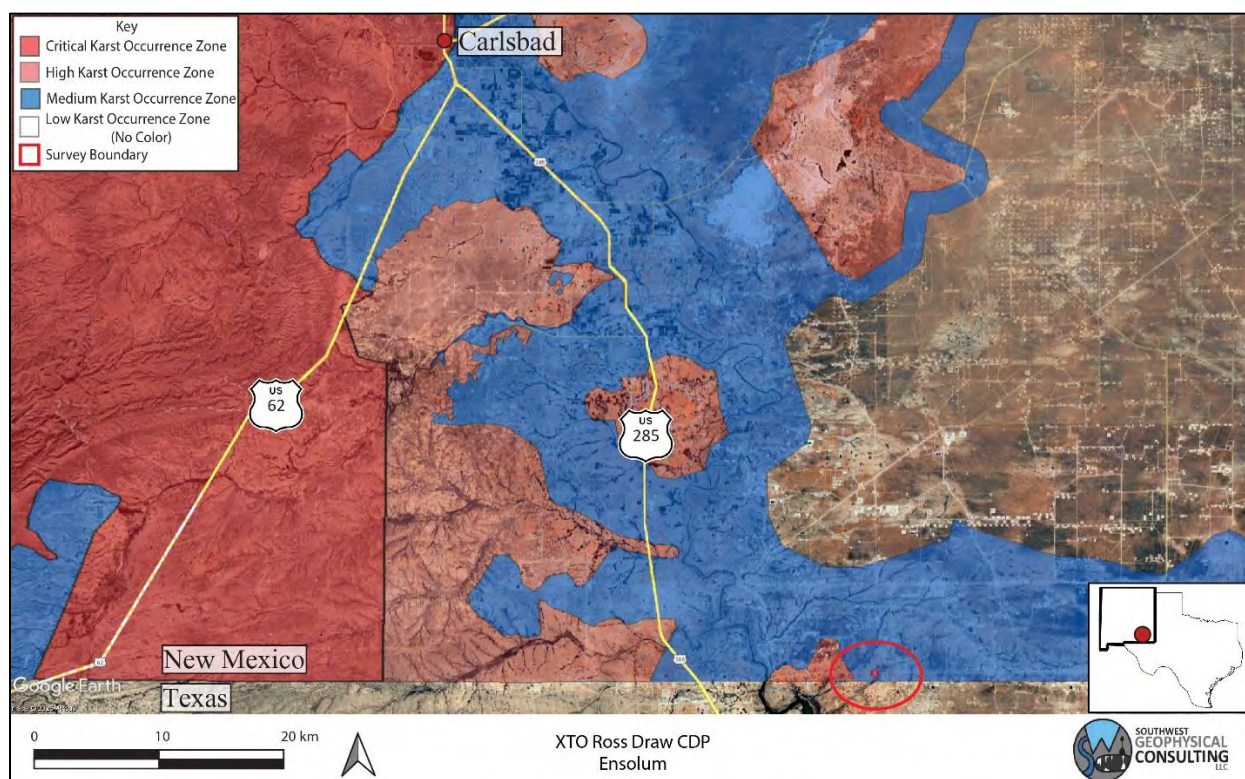


Figure 1: Karst occurrence zone overview. Background image credit: Google Earth. Image date: August 21, 2024. Image datum: WGS-84.

A medium karst occurrence zone is defined as an area in known soluble rock types that may have a shallow insoluble overburden. These areas may contain isolated karst features such as caves and sinkholes. Groundwater recharge may not be wholly dependent on karst features, but the karst features still provide the most rapid aquifer recharge in response to surface runoff^[4].

Due to the rapidity with which evaporite karst develops, each location within a BLM-CFO designated critical or high karst occurrence zone must be assessed on an individual basis to determine the existence of surface karst features and the possibility of sub-surface karst development each time a release occurs.

1.4 Limitations of Report

This report should be read in full. No responsibility is accepted for the use of any part of this report in any other context or for any other purpose or by third parties. This report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

This report has been prepared for the use of Ensolum, LLC in accordance with generally accepted consulting practices. Every effort has been made to ensure the information in this report is accurate as of the time of its writing. This report has not been prepared for use by parties other than the client, their contracting party, and their respective consulting advisors. It may not contain sufficient information for the purposes of other parties or for other uses.

This report was prepared upon completion of the associated fieldwork using a standard template prepared by Southwest Geophysical Consulting and is based on information collected prior to fieldwork, conditions encountered on site, and data collected during the fieldwork and reviewed at the time of preparation. Southwest Geophysical Consulting disclaims responsibility for any changes that might have occurred at the site after this time. The interpreted results, locations, and depths noted in this report (if applicable) should be taken as an interpretation only and no decision should be based solely on this information. Physical verification of aerial imagery analysis results in the field should be conducted prior to using this information for remediation planning. Physical verification of geophysical results using geotechnical methods should be conducted.

To the best of our knowledge, the information contained in this report is accurate at the date of issue. Due to the nature of karst terrain, the information in this report shall not be used beyond two years past the date of the field work provided in section **2.3 Description of Survey**. Large weather events can shorten this time period as areas subject to karst development can rapidly form new features subsequent to these events.

2.0 LOCATION AND DESCRIPTION OF STUDY AREA

2.1 Description of Site

The site is located 55.5 kilometers (34.5 miles) southeast of Carlsbad, New Mexico, east of the junction of Longhorn and Stateline Roads, and north of the New Mexico – Texas border in an area known as Red Bluffs. The spill delineation boundary is located within the NE $\frac{1}{4}$ section of section 32, NM T26S R30E^[6] (**Figure 1** and **Figure 2**). The region has rolling terrain with karstification occurring in the gypsite soils and underlying gypsum and dolomite bedrock^[7] (see section **2.2 Local Geology Summary** for further information). The climate in this area of southeast New Mexico is semi-arid with an average annual precipitation of approximately 13 inches, of which about two-thirds falls as rain during summer thunderstorms from June to October. Summers are hot and sunny while winters are generally mild, with an average maximum temperature of 96°F in July and an average minimum temperature of 28°F in January^[8]. This area is within the Chihuahuan Desert Thornscrub as defined by the Southwestern Regional ReGAP Vegetation map^[9] and the vegetation consists mostly of areas of blue grama, nine-awned pappus grass, burro grass and low scrub including yucca. The spill delineation boundary is located within an MKOZ^[5] (**Figure 1**) and within NMSLO managed land^[10] (**Figure 2**).

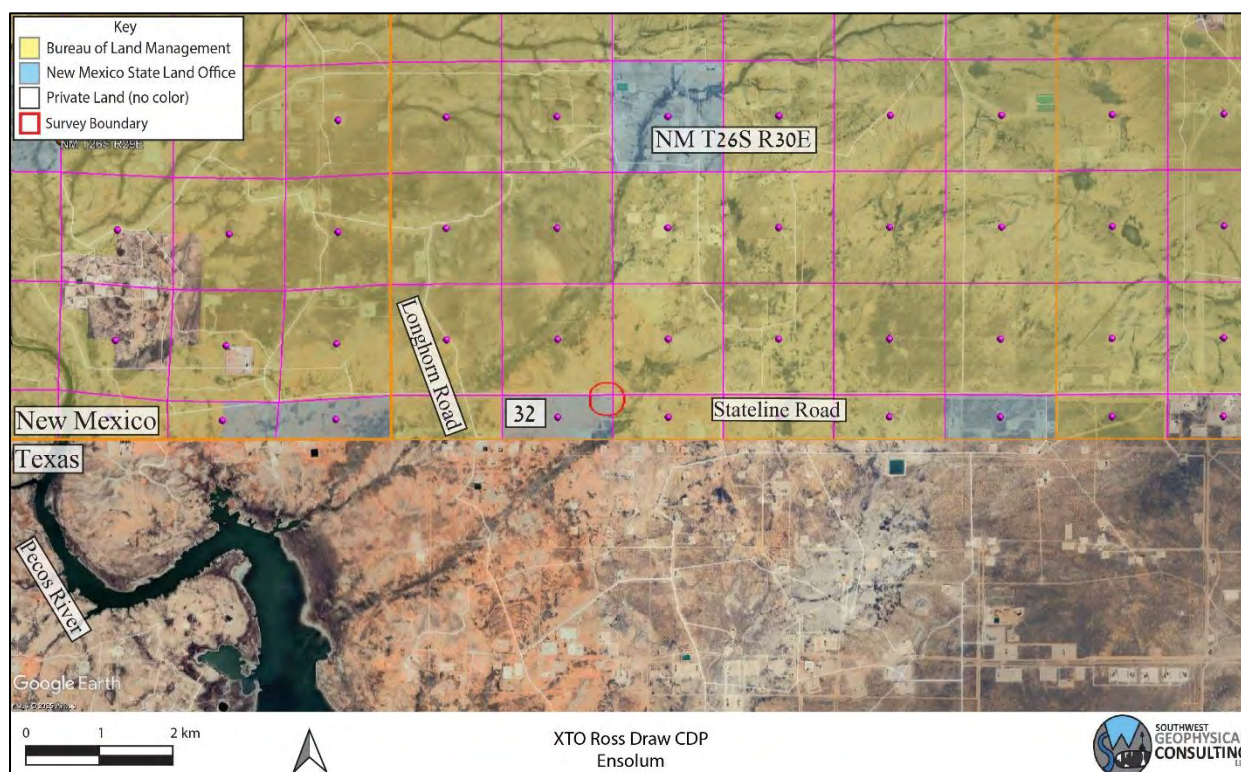


Figure 2: Land ownership and PLSS overview. Background image credit: Google Earth. Image date: December 31, 2023. Image datum: WGS-84.

2.2 Local Geology Summary

The site for the XRDC survey is located at an elevation of 897 meters (2,943 feet), $\pm$ 3 meters (9.8 feet), and is located within a region entirely underlain by the Permian Dewey Lake (Pdl) and Rustler (Pru) Formations. The area is mantled by thin gypsiferous soils (gypsite), Quaternary alluvium (Qal) and eolian sands (Qe)^[11] up to 5 meters in depth (**Figure 3**).

The Dewey Lake Formation is composed of calcite-cemented, hematite-stained quartz sand grains^[12] and occasional gypsum lenses and can, in favorable conditions, form cavernous porosity within 30 meters of the top of the Rustler Formation^[13]. The Dewey Lake Formation is also known to be highly fractured near areas of heavy halite dissolution such as Nash Draw (approximately 30 kilometers north), and these fractures can act as hydrologic conduits.

The Rustler Formation is an evaporite facies and is composed mainly of thin siltstones and sandstones interbedded with claystones, dolomite and gypsum^[12], and contains both karst-forming strata (the Forty-niner and Tamarisk members) and two shallow aquifers (the Magenta and Culebra Dolomite members). The Forty-niner and Tamarisk members are known to have highly developed karst features including large voids and solution-enlarged fractures^[14].

The survey area is covered by the easily accessible Geologic Map of New Mexico (2003) at 1:500,000 scale^[15] and the Digital Geologic Map of New Mexico in ARC/INFO Format^[11].

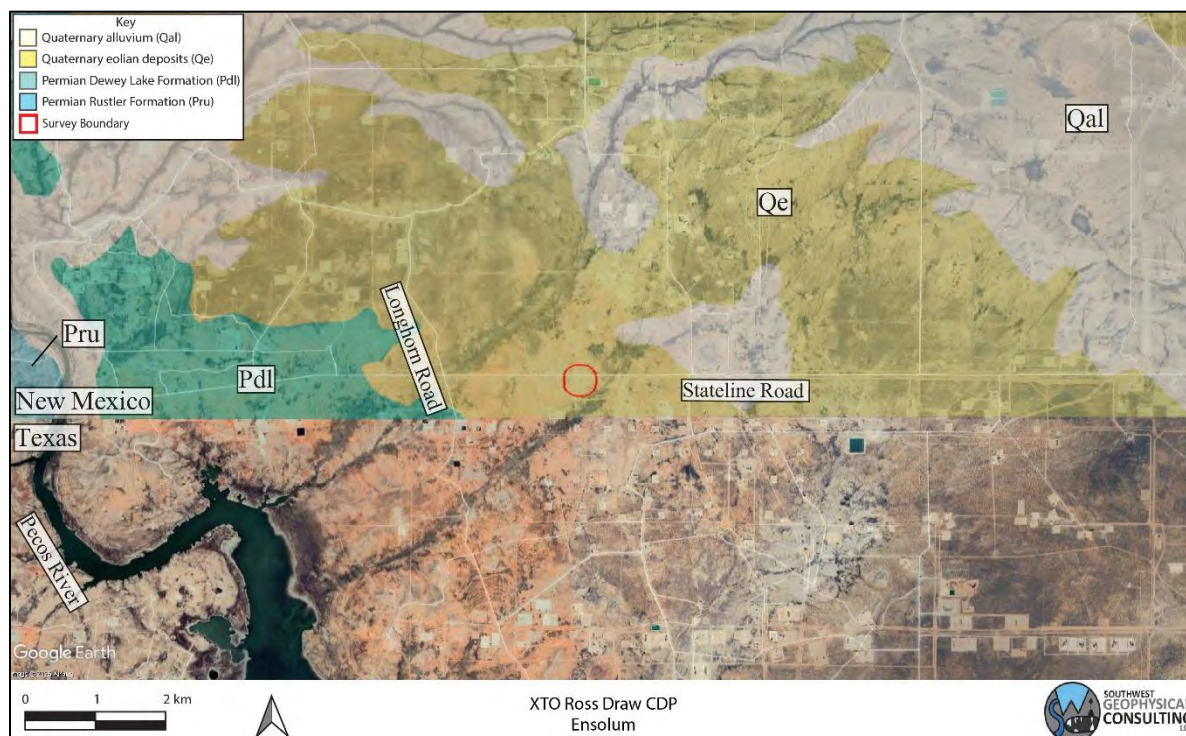


Figure 3: Geology overview. Geology map credit: The Digital Geologic Map of New Mexico in ARC/INFO Format. Background image credit: Google Earth. Image date: December 31, 2023. Image datum: WGS-84.

2.3 Description of Survey

2.3.1 Surface Karst Survey

Southwest Geophysical Consulting, in partnership with SWCA Environmental Consultants, provides surface karst surveys using small, uncrewed aerial systems (sUAS) that are flown by qualified, FAA licensed drone pilots and that meet the stringent Bureau of Land Management – Carlsbad Field Office requirements for both pedestrian and aerial karst surveys.

The surface karst survey includes a desk study prior to the flight which allows us to provide client feedback in the event of any previously known karst features in the area. The desk study is performed out to 305 meters (1,000 feet) from the spill delineation boundary per New Mexico Oil Conservation Division guidance^[1] (**Figure 4**). The study was performed using satellite and aerial imagery from Google Earth Pro dated December 31, 2023 (please note features less than one meter in diameter are generally not visible using this method); the Southwest Geophysical Cave and Karst Database dated August 1, 2025^[16]; the Ross Ranch, NM, 1:24,000 quad, 1968, USGS topographic map; and the latest lidar imagery from CalTopo.com. Please note that we use older topographic maps because newer maps have had caves removed from them. These searches and queries returned no results within the survey boundary.

Surface karst surveys are conducted by sUAS at low elevation within 200 meters of the spill delineation boundary^[4] (**Figure 4**) following a preplanned raster pattern flightpath designed for the purpose of generating at least 75% imagery overlap. The collected high-resolution, georeferenced imagery is stitched together to develop orthomosaic imagery which is further developed into a digital elevation model (DEM); the DEM is then processed into a local relief model (LRM) (**Figure 6**). This LRM is color coded to enhance differences in elevation of as little as five centimeters. The orthoimagery, DEM, and LRM are uploaded to a server where they are analyzed by an experienced karst geologist. Finally, the data is reviewed by a senior karst geologist for quality assurance and downloaded into a table for inclusion in a written report^[17].

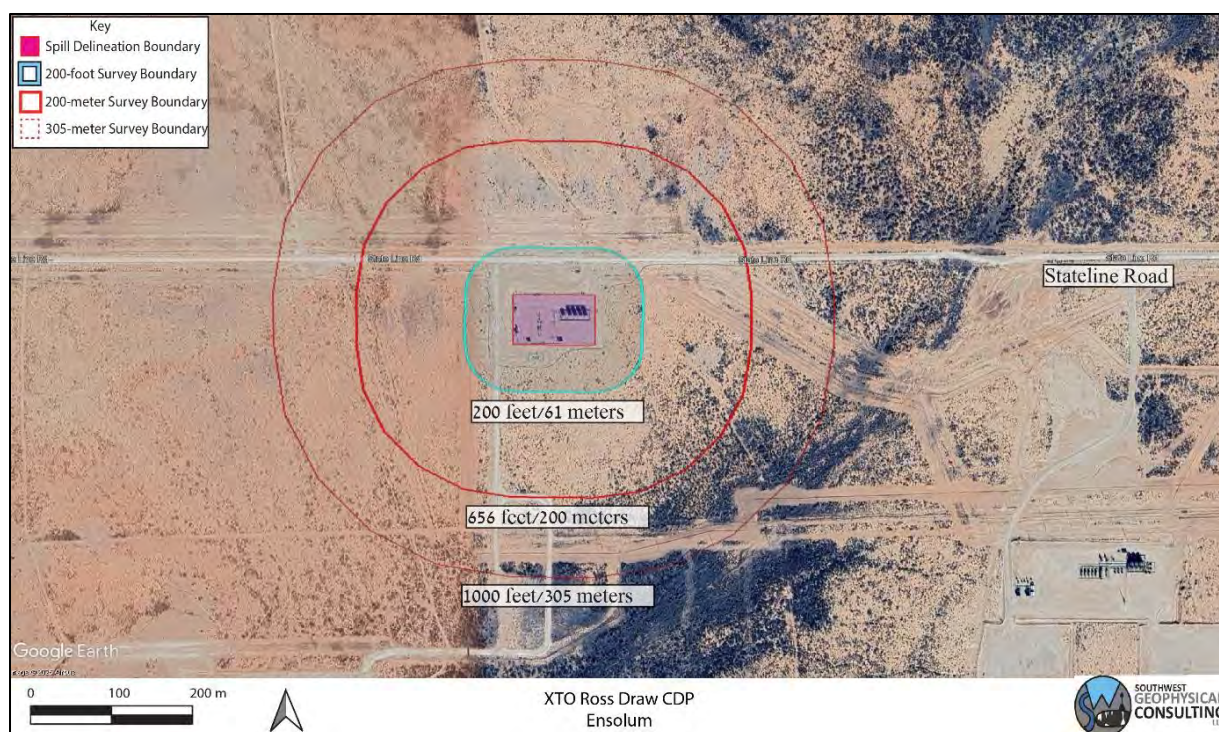


Figure 4: Surface karst survey overview. Background image credit: Google Earth. Image date: December 31, 2023. Datum: WGS-84.

The resolution of the orthoimagery is clear enough that features as small as 10 centimeters can be positively identified in most circumstances. Occasionally there are ambiguous features identified during an aerial survey that will need to be checked in the field if they are impacted by the proposed remediation efforts. Specifically, it is difficult to tell the difference between solution tubes, abandoned uncased well bores, and some burrows in drone imagery. If an ambiguous feature is located during imagery analysis, it is marked with a yellow dot in **Figure 6**. If a feature of any likelihood is subsequently verified in the field prior to publication of the report, the dot will be changed to a red triangle if confirmed as a karst feature or deleted if not.

The imagery for this study was collected via sUAS by Pat Lagodney of SWCA on August 6, 2025. Surface karst features may have developed after this date and will not be noted in this report. Imagery analysis was completed by Dave Decker of Southwest Geophysical Consulting on August 11, 2025.

2.3.2 Geophysical Survey

For this survey, a Guideline Geo Terrameter LS 2 and a 28-electrode array of 40-centimeter-long electrodes were used to image the subsurface. This survey consisted of two resistivity lines in a dipole-dipole configuration; line XRDC01 is laid out west to east while line XRDC02 is laid out south to north. Both lines consisted of 28 electrodes at 5-meter spacing, resulting in 135-meter-long arrays (**Figure 5, Table 1**). A preconfigured protocol file was used to run the data collection (DipoleDipole2x14). This electrode configuration provided a depth of investigation of 27 meters (89 feet) and a resolution of 2.5 to 3.0 meters (8.2 to 9.8 feet) within the first 5 to 8 meters (16 to 26 feet) from the surface. A Leica GS18 GPS was used to record electrode locations and elevations.

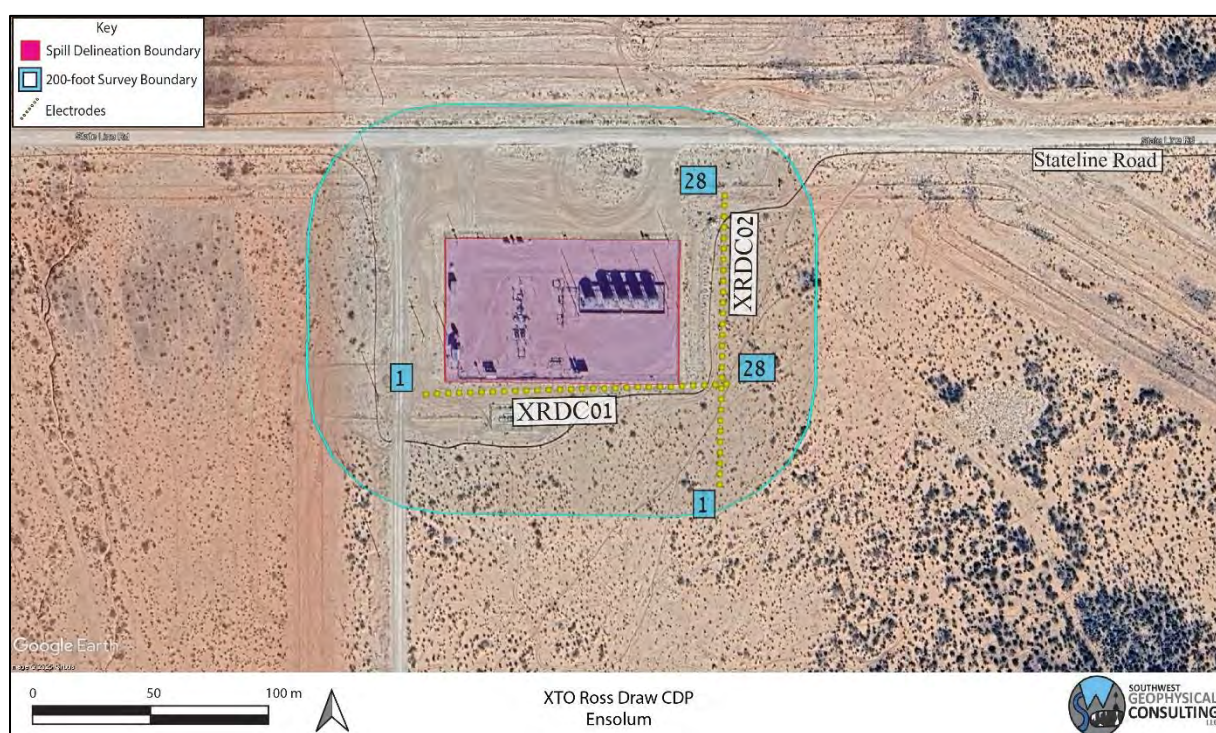


Figure 5: Geophysical survey overview. Two survey lines were conducted with 28 electrodes (yellow dots denoted with blue numbers). Background image credit: Google Earth. Image date: December 31, 2023. Datum: WGS-84.

Table 1 provides basic line data. Detailed information for each line including electrode number, location in latitude/longitude (decimal degree format), and elevation in meters can be found in the accompanying data files.

Table 1: Survey Line Data Table. The .kmz file contains all the points for the survey line listed in the file name. These data are available in the accompanying files XRDC_ERI_Points.xlsx and ENS-016-20250722_XRDC_Data_Files.kmz.

File Name:	Completed By:	Date:
XRDC01.kmz	Garrett Jorgensen Olague – Senior Field Geologist Britt Bommer – Field Geologist Steven Kesler – Field Geologist Aaron Beirl – Field Geologist	7/29/2025
XRDC02.kmz		

EarthImager™ 2D software was used to download and process the data and to provide the model used to make our interpretations. The design of the survey and the orientation of each of the lines provides the information necessary to make the determination of “stable” or “unstable” ground at this site.

A typical starting model was used for the data processing due to the two-layer model of the geology in the area; specifically, generally high-resistivity gypsum and dolomite at the surface and low-resistivity saturated gypsum and dolomite bedrock at depth. The starting model used was “average apparent resistivity” and a default inversion setting of “surface,” with a minimum apparent resistivity set to 0.1 Ohm-meters (Ohm-m or Ω -m) and a max apparent resistivity set to 100,000 Ω -m (**Table 2**).

Table 2: Software Information and Settings

Software Name:	EarthImager™ 2D
Version:	2.4.4.649
Starting Model:	Average Apparent Resistivity
Default Inversion Settings:	Surface
Changes to Default Inversion Settings:	Max Apparent Resistivity = 100 k Ω -m Min Apparent Resistivity = 0.1 Ω -m

Note: Raw data files (.stg files for EarthImager™ 2D) and processed data (.trn files, terrain files for surface correction in EarthImager™ 2D and .out files, the processed .stg files) are available upon request.

All field work, including setup, stow, and travel, was completed by Garrett Jorgensen Olague, Britt Bommer, Steven Kesler, and Aaron Beirl on July 29, 2025.

3.0 RESULTS

3.1 Surface Karst Survey

The desk study and surface karst survey showed no surface karst features within 305 meters (1,000 feet)^[1] of the spill delineation boundary (Figure 6).

No springs exist within the 305-meter (1,000-foot)^[1] survey boundary (Figure 6).

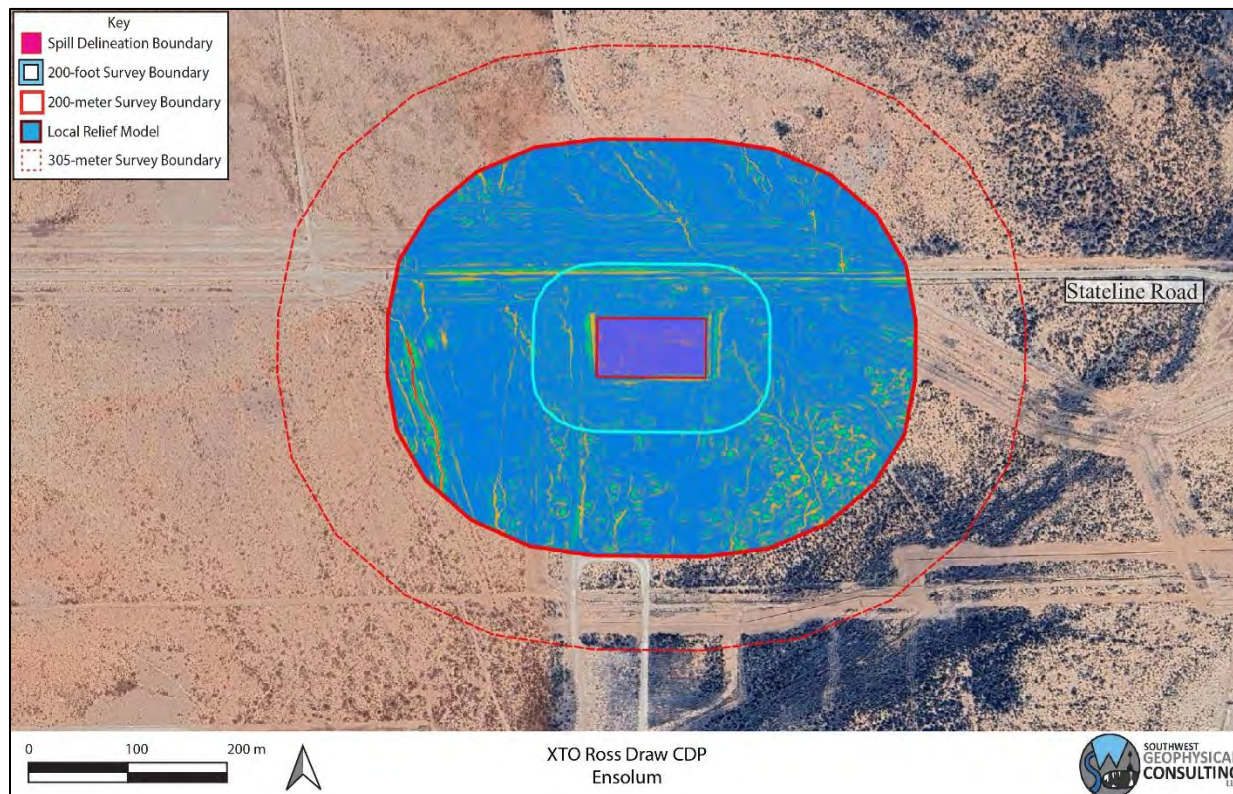


Figure 6: Surface karst survey results. Background image credit: Google Earth. Image date: December 31, 2023. Image datum: WGS-84.

3.2 Geophysical Survey

Electrical resistivity tomography forms images of the subsurface by causing a current to flow through the rock and soil and then measuring the resistance of these materials as the current flows through them. This measurement is taken many times and the resulting data, once processed, is used to produce a model of the subsurface (**Figure 7**). This model is produced using "non-unique" solutions, which means that there are many models and interpretations which will satisfy the data. Using experience and knowledge of the local geology, a high-confidence model can be established and used to develop an accurate understanding of what lies below the surface. This survey was conducted with the express purpose of locating subsurface voids and does not purport to find paleokarst (old, non-active karst features that have been filled in with sand and sediment) or nascent karst features below the resolution limit of the survey.

The results of this study indicate a moderately well-layered geologic system with low resistivities between 2.5 and 688 Ohm-m (**Figure 7**). Please keep in mind when viewing the 2D inverted resistivity sections that color maps can be widely different for each view. Always check the color map located on the right side of the image when viewing the 2D images to ensure you understand the range of resistivities presented. Distances along the top and depths along the left side are in meters. The color map along the right side is in Ohm-m. Due to the nature of the survey, shallower zones have higher resolution between electrodes than deeper zones; therefore, small features at depth will not be visible.

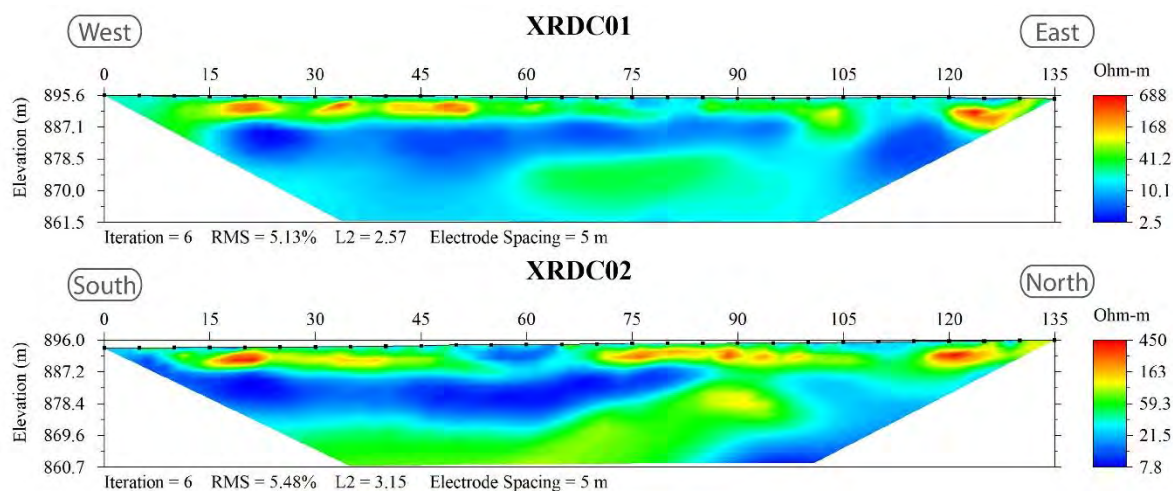


Figure 7: 2D inverted resistivity sections. Reds and oranges indicate higher resistivity values. Yellows and greens are medium-resistivity values. Blues are low-resistivity values. Please note that the color scale is relative.

4.0 DISCUSSION

No surface karst features and no anomalies consistent with air-filled subsurface voids are found within the XRDC survey area. However, small solutionally enlarged voids or fractures at or near the resolution limit of the survey (2.5 – 3.0 meters) may be present. Slightly higher-than-average resistivity areas less than 10 meters beneath the surface are interpreted as sand, caliche, or sandstone of the Dewey Lake Formation, or dry caliche soils and gypsum or dolomite bedrock of the Rustler Formation. Due to their much lower resistivity values when compared with significant subsurface voids, these features should not be a concern during remediation efforts^[18] (**Figure 7** and **Figure 8**).

Very low-resistivity areas between 2.5 – 15 Ohm-m may either represent fluid from the brine release, surface-to-subsurface hydrologic pathways, or a layer of either clays and halite lenses or moist or saturated layers within the Dewey Lake or Rustler Formations (**Figure 7**).

Please remember that these are interpretations made from knowledge of the local subsurface materials and experience. **They remain interpretations until verified by geotechnical methods.** Employing a BLM-CFO approved karst monitor on site during any drilling and/or remediation activities that require excavation below four feet in depth should be considered.

Fracture sets within the subsurface can act as hydrologic pathways to the water table. Rapid dissolution of gypsum can occur along these pathways creating solution-enlarged fractures, and in some cases, voids within months to years. For this reason, this survey is valid only for this remediation event.

Within karst terrains like the project site, small air- or sediment-filled voids and/or brecciated zones and solutionally enlarged fractures that are below the resolution limit of the survey (2.5 – 3.0 meters) may exist; these may be encountered during excavation, and if so, should be evaluated by a karst specialist prior to continued work.

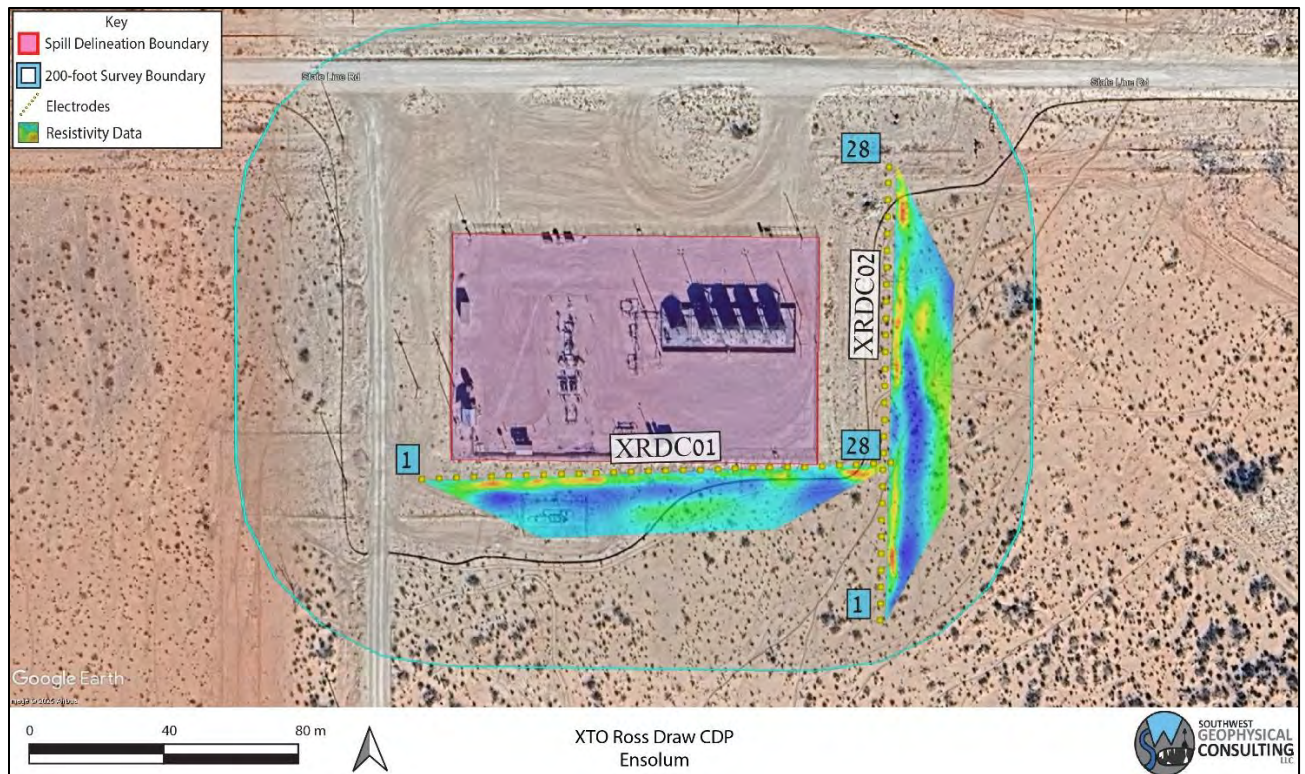


Figure 8: Data overlay. Colored trapezoids are 2D inverted resistivity lines. Background image credit: Google Earth. Image date: December 31, 2023. Datum: WGS-84.

5.0 SUMMARY

- **The XRDC survey contains no surface karst features within 200 feet (61 meters) of the spill delineation boundary.**
- **No shallow anomalies interpreted as large voids or related karst features that would present a danger to equipment operators are located within the survey area.**
- Intercepting a void during remediation is unlikely, but still possible. Small voids or solutionally enlarged fractures below the resolution limit of the survey may be encountered.
- **Well-layered stratigraphy is interpreted to exist beneath the area where the geophysical survey was conducted, indicating stable ground.**
- When conducting any remediation activities in this area, employing a BLM-CFO approved karst monitor on site should be considered.

6.0 DISCLOSURE STATEMENT

Karst occurrence zones are prone to rapid karst formation and warrant careful planning and engineering to mitigate karst-forming processes that could be accelerated by removal of surface cover or the vibrations associated with heavy equipment used in the remediation process.

Mitigation measures for any karst features revealed during excavation shall be approved by the Bureau of Land Management – Carlsbad Field Office and follow the Natural Resources Conservation Service Conservation Practice Standard for Karst Sinkhole Treatment, Code 527, or the Bureau of Land Management Cave and Karst Management Handbook, H-8380-1.

Vigilance during remediation activities is paramount. If voids are encountered during excavation, contact the Bureau of Land Management Karst Division at (575) 234-5972, the New Mexico State Land Office Surface Resources Division at (505) 827-5768, or a BLM-CFO approved karst contractor and request an on-site investigation from a karst expert if one is not already on site. A karst consultant can generally be available in Eddy County within five hours.

Approved karst monitors should have karst feature identification training, at least two years of supervised experience identifying karst features, wilderness first aid training, SRT training, confined space training, gas monitor training, and a minimum of SPAR cave rescue training through NCRC. They should have with them the proper gear and be prepared both physically and mentally to enter a collapse feature within minutes to perform a rescue if needed. Monitoring services with qualified karst monitors, as well as cave surveys and geophysical surveys, are available from Southwest Geophysical Consulting.

Under no circumstances should an untrained, inexperienced person enter a cave, pit, sinkhole, or collapse feature. All field employees of Southwest Geophysical Consulting have extensive caving experience and the ability to determine whether entry into a karst feature is safe or presents a hazard. In the event it is necessary to enter a karst feature, Southwest Geophysical Consulting can provide these services on request.

Cave and karst resource inventory reports, karst feature investigations, and geophysical reports (along with the associated data files) commissioned at the request of the land manager should be submitted to BLM-CFO at blm_nm_karst@blm.gov.

Cave and karst resource inventory reports for the NMSLO should be submitted to the respective project manager.

Environmental karst reports should be submitted to the appropriate project manager at the New Mexico Oil Conservation Division.

7.0 REFERENCES

- 1 Division, O. C. *Title 19, Chapter 15, Part 29* (Oil Conservation Division, 2018).
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- 8 W.R.C.C. *National Climate Data Center 1981-2010 Normal Climate Summary for Carlsbad, New Mexico (291469)*, 2010).
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- 16 Decker, D. D., Jorgensen, G. L. & Palmer, R. in *Southwest Geophysical Cave and Karst Database* (ed LLC Southwest Geophysical Consulting) (Albuquerque, NM, 2025).
- 17 Whitehead, W., Bandy, M. & Decker, D. Protocol for Using UAV Photography for Rapid Assessment of Karst Features in Southeast New Mexico. *Proceedings of the 2022 Cave and Karst Management Symposium* (2022).
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8.0 GLOSSARY OF TERMS

AGI	Advanced Geosciences Inc.
BLM-CFO	Bureau of Land Management - Carlsbad Field Office
brecciated	Fractured rock caused by faulting or collapse.
caprock-collapse sinkhole	Collapse of roof-spanning rock into a cave or void.
cave	Natural opening at the surface large enough for a person to enter.
cover-collapse sinkhole	Collapse of roof-spanning soil or clay ground cover into a subsurface void.
ERI	Electrical Resistivity Imaging
GPS	Global Positioning System
grike	A solutionally enlarged, vertical, or sub-vertical joint or fracture.
(H)	High confidence modifier for a PKF. This is typically reserved for a feature that is definitely karst but has not been confirmed in the field.
HKOZ	High Karst Occurrence Zone
karst	A landscape containing solutional features such as caves, sinkholes, swallets, and springs.
(L)	Low confidence modifier for a PKF. This is typically a feature that cannot be ruled out as karst but is most likely NOT karst related. This modifier may also be used for pseudokarst features.
(M)	Medium confidence modifier for PKF. This is an ambiguous feature that can't be positively identified as karst without a field visit (e.g., burrows, abandoned unlined wells, solution tubes, pseudokarst).
MKOZ	Medium Karst Occurrence Zone
NCRC	National Cave Rescue Commission
NKF	Non-karst feature. Used for features originally identified as PKF that have been subsequently identified in the field as non-karst related. This term may also be used for pseudokarst features.
NMSLO	New Mexico State Land Office
Ohm-m	Ohm-meter, a unit of measurement for resistivity. Sometimes abbreviated Ω -m.
paleokarst	Previously formed karst features that have been filled in by erosion and/or deposition of minerals.
Pat	Permian Artesia Group
Pc	Permian Capitan Formation
Pcs	Permian Castile Formation

PdI	Permian Dewey Lake Formation
PKF	Possible karst feature. This term is reserved for features identified in satellite or aerial imagery that have NOT been visited in the field. Further modifiers include (H) for high confidence, (M) for medium confidence, and (L) for low confidence. These confidence levels are based on field experience.
PLSS	Public Land Survey System
Pqg	Permian Queen/Greyburg Formation
Pru	Permian Rustler Formation
pseudokarst	Karst-like features (sinkholes, conduits, voids etc.) that are not formed by dissolution. These types of features include soil piping, lava tubes, and some cover-collapse and suffosion sinkholes.
Psl	Permian Salado Formation
Psr	Permian Seven Rivers Formation
Pt	Permian Tansill Formation
Py	Permian Yates Formation
Qal	Quaternary alluvium
Qe	Quaternary eolian deposits
Qp	Quaternary piedmont deposits
Qpl	Quaternary playa lake deposits
RKF	Recognized karst feature. This term is reserved for karst features that have been physically verified in the field.
SPAR	Small Party Assisted Rescue
sUAS	Small, uncrewed aerial system
suffosion sinkhole	Raveling of soil into a pre-existing void or fracture.
swallet	A natural opening in the surface, too small for a person, that drains water to an aquifer. Some are "open," meaning a void can be seen below; some are "closed," meaning they are full of sediment.
SWG	Southwest Geophysical Consulting, LLC
UTM	Universal Transverse Mercator (projected coordinates)
(V)	Field verified modifier for a RKF. This indicates that the feature has been visited by a qualified karst professional in the field and fully identified
WGS	World Geodetic System (geographic coordinates)

9.0 ATTESTATION

David D. Decker, PhD, PG, CPG

Chief Executive Officer, Principal Geologist

Southwest Geophysical Consulting, LLC

5117 Fairfax Dr. NW

Albuquerque, NM 87114

dave@swgeophys.com

(505) 585-2550

CERTIFICATE OF AUTHOR

I, David D. Decker, a Licensed Professional Geologist and a Certified Professional Geologist, do certify that:

- I am currently employed as a consulting geologist in the specialty of caves and karst with an office address of 5117 Fairfax Dr. NW, Albuquerque, NM, USA, 87114.
- I graduated with a Master of Science in Applied Physics with a specialization in Sensor Systems from the Naval Post Graduate School in Monterey, California, in 2003, and a Doctor of Philosophy in Earth and Planetary Sciences from the University of New Mexico, Albuquerque, New Mexico, in 2018.
- I am a Licensed Professional Geologist in the State of Texas, USA (PG-15242) and have been since 2021. I am a Certified Professional Geologist through the American Institute of Professional Geologists (CPG-12123) and have been since 2021.
- I have been employed as a geologist continuously since 2016. I was previously employed as a Fire Controlman, Naval Flight Officer, and Aerospace Engineering Duty Officer in the U.S. Navy and operated, maintained, and installed various sensor systems including magnetic, electromagnetic, radar, communications, and acoustic systems in various capacities from 1986 through 2010.
- I have been involved in various aspects of cave and karst studies continuously since 1985, including exploration, mapping, and scientific studies.
- I have read the definition of “qualified karst professional” set out in the ASTM Standard Practice for Preliminary Karst Terrain Assessment for Site Development (ASTM E-1527). I meet the definition of “qualified professional” for the purposes of this standard.
- I am responsible for the content, compilation, and editing of all sections of report number ENS-016-20250722 entitled, “Environmental Karst Study Report, XTO Ross Draw CDP, Eddy County, New Mexico.” I or a duly authorized and qualified representative of Southwest Geophysical Consulting, LLC, have personally visited this site and/or reviewed the aerial imagery on the date or dates mentioned in section **2.3 Description of Survey**.

- I have no prior involvement nor monetary interest in the described property or project, save for my fee for conducting this investigation and providing the report.

Dated in Albuquerque, New Mexico, August 18, 2025.



David D. Decker
PhD, CPG-12123



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Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS

Action 557416

QUESTIONS

Operator: XTO ENERGY, INC 3617 North Big Spring Street Midland, TX 79705	OGRID: 5380
	Action Number: 557416
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	nCE2002450037
Incident Name	NCE2002450037 ROSS DRAW CDP @ A-32-26S-30E
Incident Type	Other
Incident Status	Remediation Plan Received

Location of Release Source

Please answer all the questions in this group.

Site Name	ROSS DRAW CDP
Date Release Discovered	11/18/2019
Surface Owner	State

Incident Details

Please answer all the questions in this group.

Incident Type	Other
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Cause: Human Error Truck Crude Oil Released: 1 BBL Recovered: 0 BBL Lost: 1 BBL.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	Not answered.
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Cause: Human Error Truck Other (Specify) Released: 28 BBL Recovered: 0 BBL Lost: 28 BBL.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 557416

QUESTIONS (continued)

Operator: XTO ENERGY, INC 3617 North Big Spring Street Midland, TX 79705	OGRID: 5380
	Action Number: 557416
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

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	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Richard Kotzur Title: Senior Project Manager Email: NMEnvNotifications@exxonmobil.com Date: 02/25/2026

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QUESTIONS, Page 3

Action 557416

QUESTIONS (continued)

Operator: XTO ENERGY, INC 3617 North Big Spring Street Midland, TX 79705	OGRID: 5380
	Action Number: 557416
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Site Characterization	
<i>Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	OCD Imaging Records Lookup
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1000 (ft.) and ½ (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 300 and 500 (ft.)
Categorize the risk of this well / site being in a karst geology	None
A 100-year floodplain	Between ½ and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	4670
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	1300
GRO+DRO (EPA SW-846 Method 8015M)	1090
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
On what estimated date will the remediation commence	11/20/2019
On what date will (or did) the final sampling or liner inspection occur	12/06/2019
On what date will (or was) the remediation complete(d)	12/06/2019
What is the estimated surface area (in square feet) that will be reclaimed	44620
What is the estimated volume (in cubic yards) that will be reclaimed	1250
What is the estimated surface area (in square feet) that will be remediated	44620
What is the estimated volume (in cubic yards) that will be remediated	1250
<i>These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.</i>	
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 4

Action 557416

QUESTIONS (continued)

Operator: XTO ENERGY, INC 3617 North Big Spring Street Midland, TX 79705	OGRID: 5380
	Action Number: 557416
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	fEEM0112334510 HALFWAY DISPOSAL AND LANDFILL
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
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.	
I hereby agree and sign off to the above statement	Name: Richard Kotzur Title: Senior Project Manager Email: NMEnvNotifications@exxonmobil.com Date: 02/25/2026
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5

Action 557416

QUESTIONS (continued)

Operator: XTO ENERGY, INC 3617 North Big Spring Street Midland, TX 79705	OGRID: 5380
	Action Number: 557416
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 557416

QUESTIONS (continued)

Operator: XTO ENERGY, INC 3617 North Big Spring Street Midland, TX 79705	OGRID: 5380
	Action Number: 557416
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	557610
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	12/06/2019
What was the (estimated) number of samples that were to be gathered	46
What was the sampling surface area in square feet	9075

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	No

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CONDITIONS

Action 557416

CONDITIONS

Operator: XTO ENERGY, INC 3617 North Big Spring Street Midland, TX 79705	OGRID: 5380
	Action Number: 557416
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Remediation work plan is approved to include the following conditions of approval: 1. As XTO Energy [5380] is responsible for the remediation, reclamation, and revegetation of this release, it is the responsible party's duty to include letters from the pipeline operators who are requesting a "no excavation" buffer zone around their pipelines to take responsibility for any contamination left in place due to their buffer zone request. If the pipeline operators are unwilling to take responsibility for the contamination located within their requested buffer zones, the responsible party will be required to remediate, reclaim, and revegetate the release pursuant to 19.15.29 NMAC. Furthermore, pursuant to 19.15.29.7 C. NMAC, OCD may consider a person causing the release, or controlling the location of the release as the responsible party.	3/10/2026
michael.buchanan	If any pipeline operator refuses to allow the remediation, reclamation, and revegetation of this release, OCD reserves the right to hold the pipeline operator as the responsible party.	3/10/2026
michael.buchanan	2. Remediation work must completed as much as practical before a deferral can be considered for the road. When a closure report is submitted, the OCD will review a request for deferral within the submitted closure request before it will be approved. A potential meeting may need to be held between XTO and OCD regarding leaving contamination in the lease road	3/10/2026