

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	NRM2010150294
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

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

State of New Mexico
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

☐ The source of the release has been stopped.	
☐ The impacted area has been secured to protect human health and the environment.	
☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
☐ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <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: _____	Title: _____
Signature:  _____	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>4/10/2020</u>

Location:	Chistera 32 CTB	
Spill Date:	3/28/2020	
Area 1		
Approximate Area =	4212.00	sq. ft.
Average Saturation (or depth) of spill =	0.50	inches
Average Porosity Factor =	0.09	
VOLUME OF LEAK		
Total Crude Oil =	0.01	bbls
Total Produced Water =	2.80	bbls
Area 2		
Approximate Area =	8814.00	sq. ft.
Average Saturation (or depth) of spill =	1.00	inches
Average Porosity Factor =	0.09	
VOLUME OF LEAK		
Total Crude Oil =	0.15	bbls
Total Produced Water =	29.62	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	0.16	bbls
Total Produced Water =	32.42	bbls
TOTAL VOLUME RECOVERED		
Total Crude Oil =	0.09	bbls
Total Produced Water =	17.91	bbls

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Site Assessment/Characterization

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

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

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

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

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

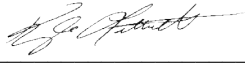
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods,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

State of New Mexico
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Incident ID	NRM2010150294
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Kyle Littrell Title: SH&E SupervisorSignature:  Date: 06/23/2020email: Kyle_Littrell@xtoenergy.com Telephone: (432)-221-7331**OCD Only**Received by: Cristina Eads Date: 06/26/2020

Incident ID	NRM2010150294
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Closure

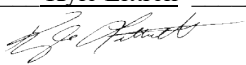
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled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

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

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

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

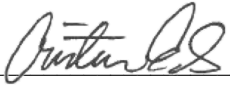
Signature:  Date: 06/23/2020

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

OCD Only

Received by: Cristina Eads Date: 06/26/2020

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

Closure Approved by:  Date: 08/26/2020

Printed Name: Cristina Eads Title: Environmental Specialist



LT Environmental, Inc.

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

June 23, 2020

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

**RE: Closure Request
Chistera 32 CTB
Incident Number NRM2010150294
Lea County, New Mexico**

To Whom It May Concern:

LT Environmental, Inc. (LTE), on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, excavation, and soil sampling activities at the Chistera 32 Central Tank Battery (CTB, Site) located in Unit B, Section 32, Township 20 South, Range 33 East, in Lea County, New Mexico (Figure 1). The purpose of the soil sampling and excavation activities was to address impacts to soil following a release of crude oil and produced water at the Site. Based on the results of the soil sampling events, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Number NRM2010150294.

RELEASE BACKGROUND

On March 28, 2020, the threads on a 1-inch nipple failed, resulting in the release of approximately 32.42 barrels (bbls) of produced water and 0.16 bbls of crude oil onto the caliche well pad. A vacuum truck was immediately dispatched to the Site to recover freestanding fluids, of which approximately 17.91 bbls of produced water and approximately 0.09 bbls of crude oil 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 April 9, 2020 and was assigned Incident Number NRM2010150294.

SITE CHARACTERIZATION

LTE characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be less than 50 feet below ground surface (bgs) based on the nearest groundwater well data. The nearest permitted groundwater well with depth to groundwater data is the United States Geological Survey (USGS) well number 323202103425201, located approximately 1.8 miles west of the Site. The groundwater well has a depth to groundwater of approximately 46 feet bgs and a total depth of approximately 65 feet bgs. Ground surface elevation at the water well location is 3,586 feet above mean sea level (amsl), which is approximately 35 feet lower in elevation than the Site. The closest continuously flowing water or significant watercourse to the Site is an intermittent streambed located



approximately 1.7 miles northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by any unstable geology (low potential karst area). The Site receptors are depicted on Figure 1.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT ACTIVITIES

On April 21, 2020, LTE personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. LTE personnel field screened soil from within the release extent from a depth of approximately 0.5 feet bgs to assess the lateral extent of impacted soil. Soil was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent was mapped utilizing a handheld Global Positioning System (GPS) unit and is depicted on Figure 2. Based on field screening results and visual observation, excavation appeared to be warranted.

EXCAVATION AND CONFIRMATION SOIL SAMPLING ACTIVITIES

On May 6 through May 18, 2020, LTE oversaw excavation activities to remediate impacted soil as indicated by visual observations and field screening results. Excavation activities were performed via, track-mounted backhoe within the release extent. The excavations were located adjacent to the eastern and northwestern edges of the circulating pump, and to the south and northwestern edges of the onsite air compressor.

Following removal of impacted soil, LTE collected 5-point composite soil samples at least every 200 square feet from the sidewalls and floor of the excavations. The 5-point composite soil samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the soil samples by thoroughly mixing. A total of sixty-nine composite floor soil samples (FS01 through FS69) and twelve composite sidewall soil samples (SW01 through SW12) were collected from the excavations. Floor soil samples were collected at a depth ranging from 1 foot bgs to 3.5 feet bgs and sidewall soil samples were collected at depths of ground surface to 2 feet bgs and 3 feet bgs. The excavation soil samples were field screened as previously described. The locations of final excavation extents and confirmation soil samples are presented



on Figure 2. Photographic documentation was conducted during excavation and confirmation soil sampling activities and is included in Attachment 1.

The three excavation extents totaled approximately 14,780 square feet. A total of approximately 1,578 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility located in Hobbs, New Mexico under XTO approved manifests. After completion of confirmation sampling, the excavation was secured with fencing and bermed with clean soil.

ANALYTICAL RESULTS

Laboratory analytical results indicated benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria in all confirmation floor and sidewall soil samples collected from the excavations to the south and northwest of the compressor. Laboratory analytical results are summarized in Table 1. The complete laboratory analytical reports are included as Attachment 2.

CONCLUSIONS

Remediation of impacted soil was successfully achieved as demonstrated through soil confirmation sampling. XTO respectfully requests NFA for the release associated with Incident Number NRM2010150294. XTO will backfill the subject excavations with material purchased locally and recontour the Site to match pre-existing site conditions.

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

Sincerely,

LT ENVIRONMENTAL, INC.

Carol Ann Whaley
Staff Geoscientist

Ashley L. Ager, P.G.
Senior Geologist

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



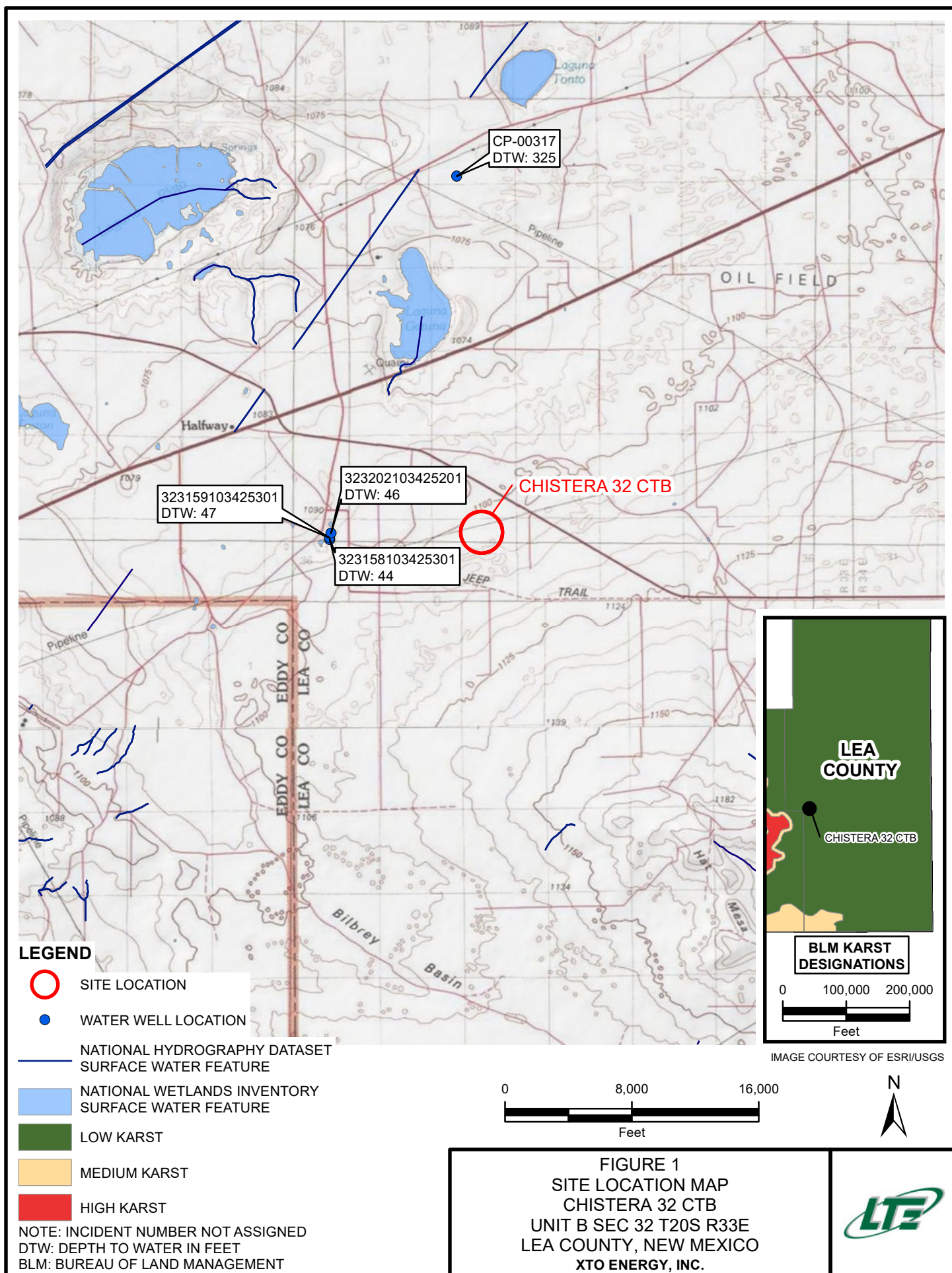
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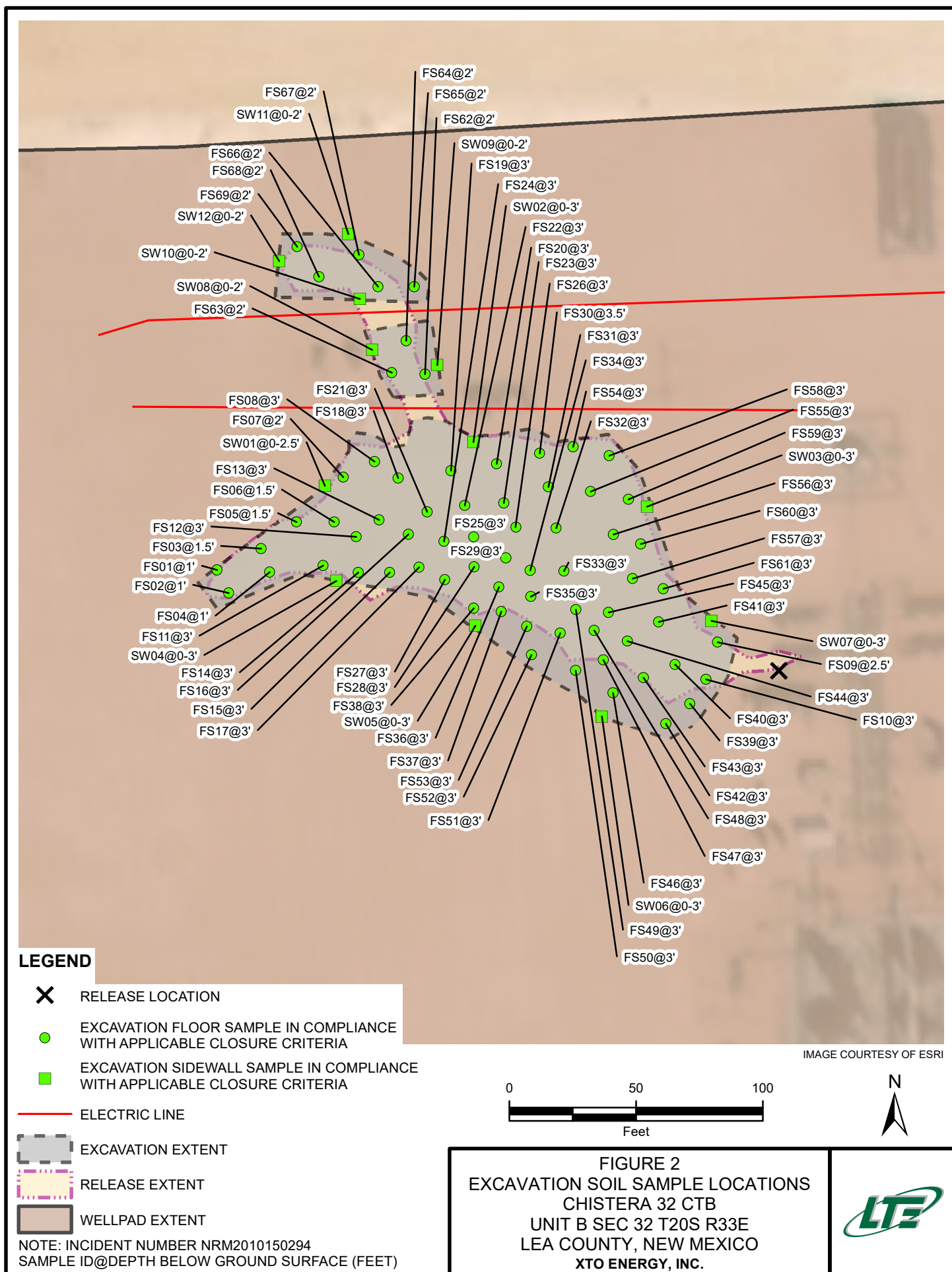
Attachments:

- Figure 1 Site Location Map
- Figure 2 Excavation Soil Sample Locations
- Table 1 Soil Analytical Results
- Attachment 1 Photographic Log
- Attachment 2 Laboratory Analytical Reports

FIGURES







TABLES



TABLE 1
SOIL ANALYTICAL RESULTS

CHISTERA 32 CTB
INCIDENT NUMBER NRM2010150294
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCDC Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS01	1	05/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	49.6
FS02	1	05/06/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	57.9
FS03	1.5	05/06/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	86.9
FS04	1	05/06/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	257
FS05	1.5	05/06/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	164
FS06	1.5	05/06/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	216
FS07	2	05/07/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	164
FS09	2.5	05/07/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	98.8
FS10	3	05/12/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	197
FS11	3	05/11/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	56.9
FS12	3	05/11/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	32.8
FS13	3	05/11/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	39.9
FS14	3	05/11/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	39.5
FS15	3	05/11/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	31.7
FS16	3	05/11/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	30.2
FS17	3	05/11/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	44.5
FS08	3	05/11/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	153
FS18	3	05/11/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	133
FS19	3	05/11/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	236
FS20	3	05/12/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	396
FS21	3	05/11/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	137
FS22	3	05/11/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	55.9
FS23	3	05/11/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	93.4

TABLE 1
SOIL ANALYTICAL RESULTS

CHISTERA 32 CTB
INCIDENT NUMBER NRM2010150294
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCDC Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS24	3	05/11/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	115
FS25	3	05/11/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	135
FS26	3	05/11/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	85.3
FS27	3	05/11/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	63.3
FS28	3	05/11/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	191
FS29	3	05/11/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	148
FS30	3.5	05/12/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	275
FS31	3	05/12/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	65.3
FS32	3	05/12/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	68.3
FS33	3	05/12/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	71.1
FS34	3	05/12/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	513
FS35	3	05/12/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	140
FS36	3	05/12/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	302
FS37	3	05/12/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.3	<50.3	<50.3	<50.3	<50.3	462
FS38	3	05/12/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	94.9
FS39	3	05/12/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	357
FS40	3	05/12/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	67.1
FS41	3	05/12/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	170
FS42	3	05/12/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	33.0
FS43	3	05/12/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	22.1
FS44	3	05/12/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	37.5
FS45	3	05/12/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	95.3
FS46	3	05/12/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	87.8

TABLE 1
SOIL ANALYTICAL RESULTS

CHISTERA 32 CTB
INCIDENT NUMBER NRM2010150294
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCDC Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS47	3	05/12/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	109
FS48	3	05/12/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	36.9
FS49	3	05/12/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	55.3
FS50	3	05/12/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	123
FS51	3	05/12/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	290
FS52	3	05/12/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	336
FS53	3	05/12/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	169
FS54	3	05/14/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	455
FS55	3	05/14/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	16.9
FS56	3	05/14/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	20.8
FS57	3	05/14/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	72.7
FS58	3	05/14/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	13.9
FS59	3	05/14/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	17.0
FS60	3	05/14/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	51.5
FS61	3	05/14/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	231
FS62	2	05/14/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	113
FS63	2	05/14/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	87.3
FS64	2	05/14/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	37.6
FS65	2	05/18/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	183
FS66	2	05/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	162
FS67	2	05/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	97.5
FS68	2	05/18/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	105
FS69	2	05/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	86.1

**TABLE 1
SOIL ANALYTICAL RESULTS**

**CHISTERA 32 CTB
INCIDENT NUMBER NRM2010150294
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.**

Sample Name	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCDC Table 1 Closure Criteria			10	NE	NE	NE	50	NE	NE	NE	NE	100	600
FS64	2	05/14/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	37.6
FS65	2	05/18/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	183
FS66	2	05/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	162
FS67	2	05/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	97.5
FS68	2	05/18/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	105
FS69	2	05/18/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	86.1
SW01	0 - 2.5	05/12/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	83.9
SW02	0 - 3	05/18/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	139
SW03	0 - 3	05/14/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	43.3
SW04	0 - 3	05/12/2020	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	87.4
SW05	0 - 3	05/12/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	57.4
SW06	0 - 3	05/12/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	28.6
SW07	0 - 3	05/14/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	196
SW08	0 - 2	05/14/2020	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	46.5
SW09	0 - 2	05/14/2020	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	386
SW10	0 - 2	05/18/2020	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	46.3
SW11	0 - 2	05/14/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	43.8
SW12	0 - 2	05/14/2020	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	44.4

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

NMOCDC - 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



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of WSP

ATTACHMENT 1: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG



Southwestern view of excavation during excavation activities.



Eastern view of final excavation extent during confirmation soil sampling activities.

Chistera 32 CTB
NRM2010150294
012920061
May 11 and May 18, 2020

ATTACHMENT 2: LABORATORY ANALYTICA LREPORTS





Analytical Report 660921

for

LT Environmental, Inc.

Project Manager: Dan Moir

Chistera 32 CTB

012920061

05.11.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
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)



05.11.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **660921**

Chistera 32 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) 660921. 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. 660921 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 Manager

A Small Business and Minority Company

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

**Sample Cross Reference 660921****LT Environmental, Inc., Arvada, CO**

Chistera 32 CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	05.06.2020 13:37	1 ft	660921-001
FS02	S	05.06.2020 13:40	1 ft	660921-002
FS03	S	05.06.2020 14:10	1.5 ft	660921-003
FS04	S	05.06.2020 13:44	1 ft	660921-004
FS05	S	05.06.2020 15:13	1.5 ft	660921-005
FS06	S	05.06.2020 15:16	1.5 ft	660921-006



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: Chistera 32 CTB

Project ID: 012920061
Work Order Number(s): 660921

Report Date: 05.11.2020
Date Received: 05.07.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 660921

LT Environmental, Inc., Arvada, CO

Project Name: Chistera 32 CTB

Project Id: 012920061

Contact: Dan Moir

Project Location:

Date Received in Lab: Thu 05.07.2020 12:30

Report Date: 05.11.2020 13:08

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660921-001	660921-002	660921-003	660921-004	660921-005	660921-006
	<i>Field Id:</i>	FS01	FS02	FS03	FS04	FS05	FS06
	<i>Depth:</i>	1- ft	1- ft	1.5- ft	1- ft	1.5- ft	1.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.06.2020 13:37	05.06.2020 13:40	05.06.2020 14:10	05.06.2020 13:44	05.06.2020 15:13	05.06.2020 15:16
BTEX by EPA 8021B	<i>Extracted:</i>	05.08.2020 17:20	05.08.2020 17:20	05.08.2020 17:20	05.08.2020 17:20	05.08.2020 17:20	05.08.2020 17:20
	<i>Analyzed:</i>	05.09.2020 04:44	05.09.2020 05:04	05.09.2020 05:25	05.09.2020 05:45	05.09.2020 06:05	05.09.2020 06:26
	<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	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00400 0.00400	<0.00402 0.00402	<0.00398 0.00398	<0.00398 0.00398	<0.00397 0.00397	<0.00401 0.00401
o-Xylene		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	05.07.2020 13:38	05.07.2020 13:38	05.07.2020 13:38	05.07.2020 13:38	05.07.2020 13:38	05.07.2020 13:38
	<i>Analyzed:</i>	05.07.2020 17:00	05.07.2020 17:06	05.07.2020 17:12	05.07.2020 17:29	05.07.2020 17:35	05.07.2020 17:53
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		49.6 9.98	57.9 9.94	86.9 9.94	257 9.98	164 9.96	216 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	05.07.2020 17:30	05.07.2020 17:30	05.07.2020 17:30	05.07.2020 17:30	05.07.2020 17:30	05.07.2020 17:30
	<i>Analyzed:</i>	05.07.2020 22:02	05.07.2020 22:23	05.07.2020 22:43	05.07.2020 23:03	05.07.2020 23:24	05.07.2020 23:44
	<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	<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)		<50.2 50.2	<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.0 50.0	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.0 50.0	<50.0 50.0
Total GRO-DRO		<50.2 50.2	<50.0 50.0	<50.0 50.0	<50.2 50.2	<50.0 50.0	<50.0 50.0
Total TPH		<50.2 50.2	<50.0 50.0	<50.0 50.0	<50.2 50.2	<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 Manager



Certificate of Analytical Results 660921

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS01** Matrix: Soil Date Received: 05.07.2020 12:30
 Lab Sample Id: 660921-001 Date Collected: 05.06.2020 13:37 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.07.2020 13:38 Basis: Wet Weight
 Seq Number: 3125418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	49.6	9.98	mg/kg	05.07.2020 17:00		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.07.2020 17:30 Basis: Wet Weight
 Seq Number: 3125463

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.07.2020 22:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.07.2020 22:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.07.2020 22:02	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.07.2020 22:02	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.07.2020 22:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-135	05.07.2020 22:02	
o-Terphenyl	84-15-1	74	%	70-135	05.07.2020 22:02	



Certificate of Analytical Results 660921

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS01**
Lab Sample Id: 660921-001

Matrix: Soil
Date Collected: 05.06.2020 13:37

Date Received: 05.07.2020 12:30
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 17:20

Basis: Wet Weight

Seq Number: 3125540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.09.2020 04:44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.09.2020 04:44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.09.2020 04:44	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.09.2020 04:44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.09.2020 04:44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.09.2020 04:44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.09.2020 04:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.09.2020 04:44	
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.09.2020 04:44	



Certificate of Analytical Results 660921

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS02** Matrix: Soil Date Received: 05.07.2020 12:30
 Lab Sample Id: 660921-002 Date Collected: 05.06.2020 13:40 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.07.2020 13:38 Basis: Wet Weight
 Seq Number: 3125418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	57.9	9.94	mg/kg	05.07.2020 17:06		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.07.2020 17:30 Basis: Wet Weight
 Seq Number: 3125463

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.07.2020 22:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.07.2020 22:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.07.2020 22:23	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.07.2020 22:23	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.07.2020 22:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	05.07.2020 22:23	
o-Terphenyl	84-15-1	73	%	70-135	05.07.2020 22:23	



Certificate of Analytical Results 660921

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS02**
Lab Sample Id: 660921-002

Matrix: Soil
Date Collected: 05.06.2020 13:40

Date Received: 05.07.2020 12:30
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 17:20

Basis: Wet Weight

Seq Number: 3125540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.09.2020 05:04	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.09.2020 05:04	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.09.2020 05:04	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.09.2020 05:04	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.09.2020 05:04	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.09.2020 05:04	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.09.2020 05:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	05.09.2020 05:04	
1,4-Difluorobenzene	540-36-3	104	%	70-130	05.09.2020 05:04	



Certificate of Analytical Results 660921

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS03** Matrix: Soil Date Received: 05.07.2020 12:30
 Lab Sample Id: 660921-003 Date Collected: 05.06.2020 14:10 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.07.2020 13:38 Basis: Wet Weight
 Seq Number: 3125418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	86.9	9.94	mg/kg	05.07.2020 17:12		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.07.2020 17:30 Basis: Wet Weight
 Seq Number: 3125463

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.07.2020 22:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.07.2020 22:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.07.2020 22:43	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.07.2020 22:43	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.07.2020 22:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-135	05.07.2020 22:43	
o-Terphenyl	84-15-1	73	%	70-135	05.07.2020 22:43	



Certificate of Analytical Results 660921

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS03**
Lab Sample Id: 660921-003

Matrix: Soil
Date Collected: 05.06.2020 14:10

Date Received: 05.07.2020 12:30
Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 17:20

Basis: Wet Weight

Seq Number: 3125540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.09.2020 05:25	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.09.2020 05:25	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.09.2020 05:25	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.09.2020 05:25	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.09.2020 05:25	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.09.2020 05:25	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.09.2020 05:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.09.2020 05:25	
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.09.2020 05:25	



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LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS04** Matrix: Soil Date Received: 05.07.2020 12:30
 Lab Sample Id: 660921-004 Date Collected: 05.06.2020 13:44 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.07.2020 13:38 Basis: Wet Weight
 Seq Number: 3125418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	257	9.98	mg/kg	05.07.2020 17:29		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.07.2020 17:30 Basis: Wet Weight
 Seq Number: 3125463

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.07.2020 23:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.07.2020 23:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.07.2020 23:03	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.07.2020 23:03	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.07.2020 23:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-135	05.07.2020 23:03	
o-Terphenyl	84-15-1	75	%	70-135	05.07.2020 23:03	



Certificate of Analytical Results 660921

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS04**
Lab Sample Id: 660921-004

Matrix: Soil
Date Collected: 05.06.2020 13:44

Date Received: 05.07.2020 12:30
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3125540

Prep Method: SW5035A

% Moisture:

Date Prep: 05.08.2020 17:20

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.09.2020 05:45	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.09.2020 05:45	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.09.2020 05:45	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.09.2020 05:45	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.09.2020 05:45	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.09.2020 05:45	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.09.2020 05:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	05.09.2020 05:45		
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.09.2020 05:45		



Certificate of Analytical Results 660921

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS05** Matrix: Soil Date Received: 05.07.2020 12:30
 Lab Sample Id: 660921-005 Date Collected: 05.06.2020 15:13 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.07.2020 13:38 Basis: Wet Weight
 Seq Number: 3125418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	164	9.96	mg/kg	05.07.2020 17:35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.07.2020 17:30 Basis: Wet Weight
 Seq Number: 3125463

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.07.2020 23:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.07.2020 23:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.07.2020 23:24	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.07.2020 23:24	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.07.2020 23:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-135	05.07.2020 23:24	
o-Terphenyl	84-15-1	75	%	70-135	05.07.2020 23:24	



Certificate of Analytical Results 660921

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS05**
Lab Sample Id: 660921-005

Matrix: Soil
Date Collected: 05.06.2020 15:13

Date Received: 05.07.2020 12:30
Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 17:20

Basis: Wet Weight

Seq Number: 3125540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.09.2020 06:05	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.09.2020 06:05	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.09.2020 06:05	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.09.2020 06:05	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.09.2020 06:05	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.09.2020 06:05	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.09.2020 06:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	05.09.2020 06:05	
4-Bromofluorobenzene	460-00-4	96	%	70-130	05.09.2020 06:05	



Certificate of Analytical Results 660921

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS06** Matrix: Soil Date Received: 05.07.2020 12:30
 Lab Sample Id: 660921-006 Date Collected: 05.06.2020 15:16 Sample Depth: 1.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.07.2020 13:38 Basis: Wet Weight
 Seq Number: 3125418

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	216	9.98	mg/kg	05.07.2020 17:53		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.07.2020 17:30 Basis: Wet Weight
 Seq Number: 3125463

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.07.2020 23:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.07.2020 23:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.07.2020 23:44	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.07.2020 23:44	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.07.2020 23:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	05.07.2020 23:44	
o-Terphenyl	84-15-1	75	%	70-135	05.07.2020 23:44	



Certificate of Analytical Results 660921

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS06**
Lab Sample Id: 660921-006

Matrix: Soil
Date Collected: 05.06.2020 15:16

Date Received: 05.07.2020 12:30
Sample Depth: 1.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 17:20

Basis: Wet Weight

Seq Number: 3125540

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.09.2020 06:26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.09.2020 06:26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.09.2020 06:26	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.09.2020 06:26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.09.2020 06:26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.09.2020 06:26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.09.2020 06:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.09.2020 06:26	
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.09.2020 06:26	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.
Chistera 32 CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3125418

MB Sample Id: 7702951-1-BLK

Matrix: Solid

LCS Sample Id: 7702951-1-BKS

Prep Method: E300P

Date Prep: 05.07.2020

LCSD Sample Id: 7702951-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	253	101	252	101	90-110	0	20	mg/kg	05.07.2020 15:36	

Analytical Method: Chloride by EPA 300

Seq Number: 3125418

Parent Sample Id: 660833-014

Matrix: Soil

MS Sample Id: 660833-014 S

Prep Method: E300P

Date Prep: 05.07.2020

MSD Sample Id: 660833-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1830	200	2050	110	2050	110	90-110	0	20	mg/kg	05.07.2020 15:55	

Analytical Method: Chloride by EPA 300

Seq Number: 3125418

Parent Sample Id: 660921-003

Matrix: Soil

MS Sample Id: 660921-003 S

Prep Method: E300P

Date Prep: 05.07.2020

MSD Sample Id: 660921-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	86.9	199	279	97	280	97	90-110	0	20	mg/kg	05.07.2020 17:18	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125463

MB Sample Id: 7702968-1-BLK

Matrix: Solid

LCS Sample Id: 7702968-1-BKS

Prep Method: SW8015P

Date Prep: 05.07.2020

LCSD Sample Id: 7702968-1-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	1100	110	1070	107	70-135	3	35	mg/kg	05.07.2020 19:39	
Diesel Range Organics (DRO)	<50.0	1000	1190	119	1170	117	70-135	2	35	mg/kg	05.07.2020 19:39	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	76		114		113		70-135	%	05.07.2020 19:39
o-Terphenyl	72		104		103		70-135	%	05.07.2020 19:39

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125463

Matrix: Solid

MB Sample Id: 7702968-1-BLK

Prep Method: SW8015P

Date Prep: 05.07.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.07.2020 19:19	

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



LT Environmental, Inc.

Chistera 32 CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125463

Parent Sample Id: 660809-032

Matrix: Soil

MS Sample Id: 660809-032 S

Prep Method: SW8015P

Date Prep: 05.07.2020

MSD Sample Id: 660809-032 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	1180	118	1190	119	70-135	1	35	mg/kg	05.07.2020 20:41	
Diesel Range Organics (DRO)	<49.9	997	1160	116	1130	113	70-135	3	35	mg/kg	05.07.2020 20:41	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		102		70-135	%	05.07.2020 20:41
o-Terphenyl	91		88		70-135	%	05.07.2020 20:41

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125540

MB Sample Id: 7703033-1-BLK

Matrix: Solid

LCS Sample Id: 7703033-1-BKS

Prep Method: SW5035A

Date Prep: 05.08.2020

LCSD Sample Id: 7703033-1-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	0.121	121	70-130	17	35	mg/kg	05.09.2020 03:02	
Toluene	<0.00200	0.100	0.0977	98	0.118	118	70-130	19	35	mg/kg	05.09.2020 03:02	
Ethylbenzene	<0.00200	0.100	0.0917	92	0.110	110	71-129	18	35	mg/kg	05.09.2020 03:02	
m,p-Xylenes	<0.00400	0.200	0.189	95	0.228	114	70-135	19	35	mg/kg	05.09.2020 03:02	
o-Xylene	<0.00200	0.100	0.0963	96	0.115	115	71-133	18	35	mg/kg	05.09.2020 03:02	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		104		105		70-130	%	05.09.2020 03:02
4-Bromofluorobenzene	95		94		92		70-130	%	05.09.2020 03:02

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125540

Parent Sample Id: 660921-001

Matrix: Soil

MS Sample Id: 660921-001 S

Prep Method: SW5035A

Date Prep: 05.08.2020

MSD Sample Id: 660921-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0841	83	0.0968	96	70-130	14	35	mg/kg	05.09.2020 03:43	
Toluene	<0.00201	0.101	0.0801	79	0.0917	91	70-130	14	35	mg/kg	05.09.2020 03:43	
Ethylbenzene	<0.00201	0.101	0.0751	74	0.0859	85	71-129	13	35	mg/kg	05.09.2020 03:43	
m,p-Xylenes	<0.00402	0.201	0.152	76	0.174	86	70-135	13	35	mg/kg	05.09.2020 03:43	
o-Xylene	<0.00201	0.101	0.0774	77	0.0880	87	71-133	13	35	mg/kg	05.09.2020 03:43	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		104		70-130	%	05.09.2020 03:43
4-Bromofluorobenzene	95		96		70-130	%	05.09.2020 03:43

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

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

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

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



Houston, TX (261) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 506-3334
Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3189, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701

Atlanta, GA (770) 449-8800

Page ____ of ____ www.xenco.com

Chain of Custody

Work Order No:

960921

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

Work Order Comments	
Program: UST/PST ☐ PRF ☐ Brownfield ☐ RR ☐ Superfund ☐	
State of Project:	
Reporting Level: ☐ Level ☐ PST/US ☐ TRR ☐ Level ☐ Y	
Deliverables: EDD ☐ ADaPT ☐ Other:	

[illegible]

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 05.07.2020 12.30.00 PM

Work Order #: 660921

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)?	5.4
#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

Samples recieved in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 05.07.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.08.2020



Analytical Report 661220

for

LT Environmental, Inc.

Project Manager: Dan Moir

Christera 32 CTB

012920061

05.15.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
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)



05.15.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **661220**

Christera 32 CTB

Project Address: Lea County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 661220. 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. 661220 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 Manager

A Small Business and Minority Company

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

**Sample Cross Reference 661220****LT Environmental, Inc., Arvada, CO**

Christera 32 CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS07	S	05.07.2020 10:36	2 ft	661220-001
FS09	S	05.07.2020 12:31	2.5 ft	661220-002
FS11	S	05.11.2020 10:31	3 ft	661220-003
FS12	S	05.11.2020 10:40	3 ft	661220-004
FS13	S	05.11.2020 10:44	3 ft	661220-005
FS14	S	05.11.2020 11:29	3 ft	661220-006
FS15	S	05.11.2020 11:36	3 ft	661220-007
FS16	S	05.11.2020 11:39	3 ft	661220-008
FS17	S	05.11.2020 11:59	3 ft	661220-009
FS08	S	05.11.2020 12:24	3 ft	661220-010
FS18	S	05.11.2020 13:12	3 ft	661220-011
FS19	S	05.11.2020 13:15	3 ft	661220-012
FS21	S	05.11.2020 13:20	3 ft	661220-013
FS22	S	05.11.2020 13:23	3 ft	661220-014
FS23	S	05.11.2020 13:26	3 ft	661220-015
FS24	S	05.11.2020 13:49	3 ft	661220-016
FS25	S	05.11.2020 13:53	3 ft	661220-017
FS26	S	05.11.2020 13:56	3 ft	661220-018
FS27	S	05.11.2020 14:01	3 ft	661220-019
FS28	S	05.11.2020 14:06	3 ft	661220-020
FS29	S	05.11.2020 14:10	3 ft	661220-021



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *Christera 32 CTB*

Project ID: 012920061
Work Order Number(s): 661220

Report Date: 05.15.2020
Date Received: 05.12.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 661220

LT Environmental, Inc., Arvada, CO

Project Name: Christera 32 CTB

Project Id: 012920061

Contact: Dan Moir

Project Location: Lea County

Date Received in Lab: Tue 05.12.2020 10:00

Report Date: 05.15.2020 08:49

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661220-001	661220-002	661220-003	661220-004	661220-005	661220-006
	<i>Field Id:</i>	FS07	FS09	FS11	FS12	FS13	FS14
	<i>Depth:</i>	2- ft	2.5- ft	3- ft	3- ft	3- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.07.2020 10:36	05.07.2020 12:31	05.11.2020 10:31	05.11.2020 10:40	05.11.2020 10:44	05.11.2020 11:29
BTEX by EPA 8021B	<i>Extracted:</i>	05.12.2020 11:00	05.12.2020 11:00	05.12.2020 11:00	05.12.2020 11:00	05.12.2020 11:00	05.12.2020 11:00
	<i>Analyzed:</i>	05.12.2020 20:00	05.12.2020 20:20	05.12.2020 20:41	05.12.2020 21:01	05.12.2020 21:22	05.12.2020 21:42
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Toluene		<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Ethylbenzene		<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
m,p-Xylenes		<0.00404 0.00404	<0.00402 0.00402	<0.00405 0.00405	<0.00402 0.00402	<0.00402 0.00402	<0.00404 0.00404
o-Xylene		<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Total Xylenes		<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Total BTEX		<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	05.12.2020 16:44	05.12.2020 16:44	05.12.2020 16:44	05.12.2020 16:44	05.12.2020 16:44	05.12.2020 16:44
	<i>Analyzed:</i>	05.12.2020 20:35	05.12.2020 20:41	05.12.2020 20:47	05.12.2020 20:53	05.12.2020 21:11	05.12.2020 21:16
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		164 9.98	98.8 10.1	56.9 10.1	32.8 10.0	39.9 10.0	39.5 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00
	<i>Analyzed:</i>	05.13.2020 14:27	05.13.2020 14:47	05.13.2020 15:08	05.13.2020 15:29	05.13.2020 15:50	05.13.2020 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	<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2	<50.1 50.1
Diesel Range Organics (DRO)		<49.8 49.8	<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2	<50.1 50.1
Total GRO-DRO		<49.8 49.8	<49.9 49.9	<50.2 50.2	<50.0 50.0	<50.2 50.2	<50.1 50.1
Total TPH		<49.8 49.8	<49.9 49.9	<50.2 50.2	<50.0 50.0	<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 Manager



Certificate of Analysis Summary 661220

LT Environmental, Inc., Arvada, CO

Project Name: Christera 32 CTB

Project Id: 012920061

Contact: Dan Moir

Project Location: Lea County

Date Received in Lab: Tue 05.12.2020 10:00

Report Date: 05.15.2020 08:49

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661220-007	661220-008	661220-009	661220-010	661220-011	661220-012
	<i>Field Id:</i>	FS15	FS16	FS17	FS08	FS18	FS19
	<i>Depth:</i>	3- ft	3- ft	3- ft	3- ft	3- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.11.2020 11:36	05.11.2020 11:39	05.11.2020 11:59	05.11.2020 12:24	05.11.2020 13:12	05.11.2020 13:15
BTEX by EPA 8021B	<i>Extracted:</i>	05.12.2020 11:00	05.12.2020 13:31	05.12.2020 13:31	05.12.2020 13:31	05.12.2020 13:31	05.12.2020 13:31
	<i>Analyzed:</i>	05.12.2020 22:03	05.12.2020 17:01	05.12.2020 17:22	05.12.2020 17:44	05.12.2020 18:05	05.12.2020 18:27
	<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	<0.00400 0.00400	<0.00404 0.00404	<0.00402 0.00402	<0.00400 0.00400	<0.00404 0.00404
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>	05.12.2020 16:44	05.12.2020 16:44	05.12.2020 16:44	05.12.2020 16:44	05.12.2020 16:44	05.12.2020 16:44
	<i>Analyzed:</i>	05.12.2020 21:34	05.12.2020 21:40	05.12.2020 21:46	05.12.2020 21:52	05.12.2020 21:58	05.12.2020 22:03
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		31.7 9.92	30.2 9.92	44.5 10.0	153 10.1	133 10.1	236 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00
	<i>Analyzed:</i>	05.13.2020 16:32	05.13.2020 16:52	05.13.2020 17:13	05.13.2020 17:54	05.13.2020 18:15	05.13.2020 18:35
	<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	<49.8 49.8	<49.9 49.9	<50.2 50.2	<49.8 49.8	<49.9 49.9
Diesel Range Organics (DRO)		<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.2 50.2	<49.8 49.8	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.2 50.2	<49.8 49.8	<49.9 49.9
Total GRO-DRO		<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.2 50.2	<49.8 49.8	<49.9 49.9
Total TPH		<49.9 49.9	<49.8 49.8	<49.9 49.9	<50.2 50.2	<49.8 49.8	<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 Manager



Certificate of Analysis Summary 661220

LT Environmental, Inc., Arvada, CO

Project Name: Christera 32 CTB

Project Id: 012920061

Contact: Dan Moir

Project Location: Lea County

Date Received in Lab: Tue 05.12.2020 10:00

Report Date: 05.15.2020 08:49

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661220-013	661220-014	661220-015	661220-016	661220-017	661220-018
	<i>Field Id:</i>	FS21	FS22	FS23	FS24	FS25	FS26
	<i>Depth:</i>	3- ft	3- ft	3- ft	3- ft	3- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.11.2020 13:20	05.11.2020 13:23	05.11.2020 13:26	05.11.2020 13:49	05.11.2020 13:53	05.11.2020 13:56
BTEX by EPA 8021B	<i>Extracted:</i>	05.12.2020 13:31	05.12.2020 13:31	05.12.2020 13:31	05.12.2020 13:31	05.12.2020 13:31	05.12.2020 13:31
	<i>Analyzed:</i>	05.12.2020 18:48	05.12.2020 19:10	05.12.2020 19:31	05.12.2020 19:53	05.12.2020 20:14	05.12.2020 21:19
	<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	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00403 0.00403	<0.00403 0.00403	<0.00403 0.00403	<0.00402 0.00402	<0.00399 0.00399	<0.00404 0.00404
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	05.12.2020 16:44	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00
	<i>Analyzed:</i>	05.12.2020 22:09	05.12.2020 22:45	05.12.2020 23:02	05.12.2020 23:08	05.12.2020 23:14	05.12.2020 23:20
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		137 10.0	55.9 9.96	93.4 9.98	115 10.1	135 10.0	85.3 9.92
TPH by SW8015 Mod	<i>Extracted:</i>	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00
	<i>Analyzed:</i>	05.13.2020 18:56	05.13.2020 19:17	05.13.2020 19:37	05.13.2020 19:58	05.13.2020 20:19	05.13.2020 20:40
	<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	<50.1 50.1	<49.9 49.9	<49.8 49.8	<50.3 50.3	<50.2 50.2
Diesel Range Organics (DRO)		<50.0 50.0	<50.1 50.1	<49.9 49.9	<49.8 49.8	<50.3 50.3	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.1 50.1	<49.9 49.9	<49.8 49.8	<50.3 50.3	<50.2 50.2
Total GRO-DRO		<50.0 50.0	<50.1 50.1	<49.9 49.9	<49.8 49.8	<50.3 50.3	<50.2 50.2
Total TPH		<50.0 50.0	<50.1 50.1	<49.9 49.9	<49.8 49.8	<50.3 50.3	<50.2 50.2

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 661220

LT Environmental, Inc., Arvada, CO

Project Name: Christera 32 CTB

Project Id: 012920061

Contact: Dan Moir

Project Location: Lea County

Date Received in Lab: Tue 05.12.2020 10:00

Report Date: 05.15.2020 08:49

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	661220-019	661220-020	661220-021			
	Field Id:	FS27	FS28	FS29			
	Depth:	3- ft	3- ft	3- ft			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	05.11.2020 14:01	05.11.2020 14:06	05.11.2020 14:10			
BTEX by EPA 8021B	Extracted:	05.12.2020 13:31	05.12.2020 13:31	05.12.2020 13:31			
	Analyzed:	05.12.2020 21:40	05.12.2020 22:02	05.12.2020 22:23			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202			
Toluene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202			
Ethylbenzene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202			
m,p-Xylenes		<0.00402 0.00402	<0.00404 0.00404	<0.00404 0.00404			
o-Xylene		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202			
Total Xylenes		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202			
Total BTEX		<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202			
Chloride by EPA 300	Extracted:	05.12.2020 17:00	05.12.2020 17:00	05.12.2020 17:00			
	Analyzed:	05.12.2020 23:37	05.12.2020 23:43	05.12.2020 23:49			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		63.3 9.94	191 9.96	148 9.98			
TPH by SW8015 Mod	Extracted:	05.12.2020 17:00	05.12.2020 17:00	05.13.2020 11:40			
	Analyzed:	05.13.2020 21:01	05.13.2020 13:24	05.13.2020 23:49			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.2 50.2	<49.9 49.9			
Diesel Range Organics (DRO)		<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	<49.9 49.9			
Total GRO-DRO		<50.2 50.2	<50.2 50.2	<49.9 49.9			
Total TPH		<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.

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Jessica Kramer
Project Manager



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS07** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-001 Date Collected: 05.07.2020 10:36 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 16:44 Basis: Wet Weight
 Seq Number: 3125747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	164	9.98	mg/kg	05.12.2020 20:35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.13.2020 14:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.13.2020 14:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.13.2020 14:27	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.13.2020 14:27	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.13.2020 14:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	05.13.2020 14:27	
o-Terphenyl	84-15-1	116	%	70-135	05.13.2020 14:27	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS07**
Lab Sample Id: 661220-001

Matrix: Soil
Date Collected: 05.07.2020 10:36

Date Received: 05.12.2020 10:00
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 11:00

Basis: Wet Weight

Seq Number: 3125752

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.12.2020 20:00	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.12.2020 20:00	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.12.2020 20:00	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.12.2020 20:00	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.12.2020 20:00	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.12.2020 20:00	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.12.2020 20:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	05.12.2020 20:00		
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.12.2020 20:00		



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS09** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-002 Date Collected: 05.07.2020 12:31 Sample Depth: 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 16:44 Basis: Wet Weight
 Seq Number: 3125747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	98.8	10.1	mg/kg	05.12.2020 20:41		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.13.2020 14:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.13.2020 14:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.13.2020 14:47	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.13.2020 14:47	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.13.2020 14:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	05.13.2020 14:47	
o-Terphenyl	84-15-1	114	%	70-135	05.13.2020 14:47	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS09**
Lab Sample Id: 661220-002

Matrix: Soil
Date Collected: 05.07.2020 12:31

Date Received: 05.12.2020 10:00
Sample Depth: 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 11:00

Basis: Wet Weight

Seq Number: 3125752

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.12.2020 20:20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.12.2020 20:20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.12.2020 20:20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.12.2020 20:20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.12.2020 20:20	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.12.2020 20:20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.12.2020 20:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.12.2020 20:20	
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.12.2020 20:20	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS11** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-003 Date Collected: 05.11.2020 10:31 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 16:44 Basis: Wet Weight
 Seq Number: 3125747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	56.9	10.1	mg/kg	05.12.2020 20:47		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.13.2020 15:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.13.2020 15:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.13.2020 15:08	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.13.2020 15:08	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.13.2020 15:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	05.13.2020 15:08	
o-Terphenyl	84-15-1	117	%	70-135	05.13.2020 15:08	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS11**
Lab Sample Id: 661220-003

Matrix: Soil
Date Collected: 05.11.2020 10:31

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 11:00

Basis: Wet Weight

Seq Number: 3125752

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.12.2020 20:41	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.12.2020 20:41	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.12.2020 20:41	U	1
m,p-Xylenes	179601-23-1	<0.00405	0.00405	mg/kg	05.12.2020 20:41	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.12.2020 20:41	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.12.2020 20:41	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.12.2020 20:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.12.2020 20:41	
4-Bromofluorobenzene	460-00-4	95	%	70-130	05.12.2020 20:41	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS12** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-004 Date Collected: 05.11.2020 10:40 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 16:44 Basis: Wet Weight
 Seq Number: 3125747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	32.8	10.0	mg/kg	05.12.2020 20:53		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.13.2020 15:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.13.2020 15:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.13.2020 15:29	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.13.2020 15:29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.13.2020 15:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	05.13.2020 15:29	
o-Terphenyl	84-15-1	114	%	70-135	05.13.2020 15:29	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS12**
Lab Sample Id: 661220-004

Matrix: Soil
Date Collected: 05.11.2020 10:40

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 11:00

Basis: Wet Weight

Seq Number: 3125752

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.12.2020 21:01	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.12.2020 21:01	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.12.2020 21:01	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.12.2020 21:01	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.12.2020 21:01	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.12.2020 21:01	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.12.2020 21:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	05.12.2020 21:01	
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.12.2020 21:01	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS13** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-005 Date Collected: 05.11.2020 10:44 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 16:44 Basis: Wet Weight
 Seq Number: 3125747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.9	10.0	mg/kg	05.12.2020 21:11		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.13.2020 15:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.13.2020 15:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.13.2020 15:50	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.13.2020 15:50	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.13.2020 15:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	05.13.2020 15:50	
o-Terphenyl	84-15-1	118	%	70-135	05.13.2020 15:50	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS13**
Lab Sample Id: 661220-005

Matrix: Soil
Date Collected: 05.11.2020 10:44

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 11:00

Basis: Wet Weight

Seq Number: 3125752

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.12.2020 21:22	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.12.2020 21:22	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.12.2020 21:22	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.12.2020 21:22	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.12.2020 21:22	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.12.2020 21:22	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.12.2020 21:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.12.2020 21:22	
4-Bromofluorobenzene	460-00-4	95	%	70-130	05.12.2020 21:22	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS14** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-006 Date Collected: 05.11.2020 11:29 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 16:44 Basis: Wet Weight
 Seq Number: 3125747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.5	9.98	mg/kg	05.12.2020 21:16		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.13.2020 16:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.13.2020 16:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.13.2020 16:11	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.13.2020 16:11	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.13.2020 16:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.13.2020 16:11	
o-Terphenyl	84-15-1	116	%	70-135	05.13.2020 16:11	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS14**
Lab Sample Id: 661220-006

Matrix: Soil
Date Collected: 05.11.2020 11:29

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 11:00

Basis: Wet Weight

Seq Number: 3125752

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.12.2020 21:42	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.12.2020 21:42	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.12.2020 21:42	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.12.2020 21:42	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.12.2020 21:42	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.12.2020 21:42	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.12.2020 21:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	05.12.2020 21:42		
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.12.2020 21:42		



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS15** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-007 Date Collected: 05.11.2020 11:36 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 16:44 Basis: Wet Weight
 Seq Number: 3125747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.7	9.92	mg/kg	05.12.2020 21:34		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.13.2020 16:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.13.2020 16:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.13.2020 16:32	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.13.2020 16:32	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.13.2020 16:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	05.13.2020 16:32	
o-Terphenyl	84-15-1	116	%	70-135	05.13.2020 16:32	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS15**
Lab Sample Id: 661220-007

Matrix: Soil
Date Collected: 05.11.2020 11:36

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 11:00

Basis: Wet Weight

Seq Number: 3125752

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.12.2020 22:03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.12.2020 22:03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.12.2020 22:03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.12.2020 22:03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.12.2020 22:03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.12.2020 22:03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.12.2020 22:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	05.12.2020 22:03		
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.12.2020 22:03		



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS16** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-008 Date Collected: 05.11.2020 11:39 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 16:44 Basis: Wet Weight
 Seq Number: 3125747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	30.2	9.92	mg/kg	05.12.2020 21:40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.13.2020 16:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.13.2020 16:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.13.2020 16:52	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.13.2020 16:52	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.13.2020 16:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	05.13.2020 16:52	
o-Terphenyl	84-15-1	117	%	70-135	05.13.2020 16:52	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS16**
Lab Sample Id: 661220-008

Matrix: Soil
Date Collected: 05.11.2020 11:39

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 13:31

Basis: Wet Weight

Seq Number: 3125753

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.12.2020 17:01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.12.2020 17:01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.12.2020 17:01	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.12.2020 17:01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.12.2020 17:01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.12.2020 17:01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.12.2020 17:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.12.2020 17:01		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.12.2020 17:01		



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS17** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-009 Date Collected: 05.11.2020 11:59 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 16:44 Basis: Wet Weight
 Seq Number: 3125747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	44.5	10.0	mg/kg	05.12.2020 21:46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.13.2020 17:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.13.2020 17:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.13.2020 17:13	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.13.2020 17:13	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.13.2020 17:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	05.13.2020 17:13	
o-Terphenyl	84-15-1	115	%	70-135	05.13.2020 17:13	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS17**
Lab Sample Id: 661220-009

Matrix: Soil
Date Collected: 05.11.2020 11:59

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 13:31

Basis: Wet Weight

Seq Number: 3125753

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.12.2020 17:22	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.12.2020 17:22	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.12.2020 17:22	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.12.2020 17:22	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.12.2020 17:22	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.12.2020 17:22	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.12.2020 17:22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.12.2020 17:22		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.12.2020 17:22		



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS08** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-010 Date Collected: 05.11.2020 12:24 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 16:44 Basis: Wet Weight
 Seq Number: 3125747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	153	10.1	mg/kg	05.12.2020 21:52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.13.2020 17:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.13.2020 17:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.13.2020 17:54	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.13.2020 17:54	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.13.2020 17:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	05.13.2020 17:54	
o-Terphenyl	84-15-1	117	%	70-135	05.13.2020 17:54	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS08**
Lab Sample Id: 661220-010

Matrix: Soil
Date Collected: 05.11.2020 12:24

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 13:31

Basis: Wet Weight

Seq Number: 3125753

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.12.2020 17:44	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.12.2020 17:44	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.12.2020 17:44	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.12.2020 17:44	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.12.2020 17:44	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.12.2020 17:44	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.12.2020 17:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.12.2020 17:44	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.12.2020 17:44	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS18**
Lab Sample Id: 661220-011

Matrix: Soil
Date Collected: 05.11.2020 13:12

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3125747

Date Prep: 05.12.2020 16:44

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	133	10.1	mg/kg	05.12.2020 21:58		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3125887

Date Prep: 05.12.2020 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	05.13.2020 18:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.13.2020 18:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.13.2020 18:15	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.13.2020 18:15	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.13.2020 18:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	05.13.2020 18:15	
o-Terphenyl	84-15-1	115	%	70-135	05.13.2020 18:15	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS18**
Lab Sample Id: 661220-011

Matrix: Soil
Date Collected: 05.11.2020 13:12

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 13:31

Basis: Wet Weight

Seq Number: 3125753

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.12.2020 18:05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.12.2020 18:05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.12.2020 18:05	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.12.2020 18:05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.12.2020 18:05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.12.2020 18:05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.12.2020 18:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.12.2020 18:05	
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.12.2020 18:05	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS19** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-012 Date Collected: 05.11.2020 13:15 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 16:44 Basis: Wet Weight
 Seq Number: 3125747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	236	10.1	mg/kg	05.12.2020 22:03		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.13.2020 18:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.13.2020 18:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.13.2020 18:35	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.13.2020 18:35	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.13.2020 18:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	05.13.2020 18:35	
o-Terphenyl	84-15-1	114	%	70-135	05.13.2020 18:35	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS19**
Lab Sample Id: 661220-012

Matrix: Soil
Date Collected: 05.11.2020 13:15

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 13:31

Basis: Wet Weight

Seq Number: 3125753

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.12.2020 18:27	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.12.2020 18:27	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.12.2020 18:27	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.12.2020 18:27	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.12.2020 18:27	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.12.2020 18:27	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.12.2020 18:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.12.2020 18:27	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.12.2020 18:27	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS21** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-013 Date Collected: 05.11.2020 13:20 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 16:44 Basis: Wet Weight
 Seq Number: 3125747

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	137	10.0	mg/kg	05.12.2020 22:09		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.13.2020 18:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.13.2020 18:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.13.2020 18:56	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.13.2020 18:56	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.13.2020 18:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	05.13.2020 18:56	
o-Terphenyl	84-15-1	118	%	70-135	05.13.2020 18:56	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS21**
Lab Sample Id: 661220-013

Matrix: Soil
Date Collected: 05.11.2020 13:20

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 13:31

Basis: Wet Weight

Seq Number: 3125753

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.12.2020 18:48	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.12.2020 18:48	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.12.2020 18:48	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.12.2020 18:48	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.12.2020 18:48	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.12.2020 18:48	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.12.2020 18:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.12.2020 18:48	
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.12.2020 18:48	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS22 Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-014 Date Collected: 05.11.2020 13:23 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	55.9	9.96	mg/kg	05.12.2020 22:45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.13.2020 19:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.13.2020 19:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.13.2020 19:17	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.13.2020 19:17	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.13.2020 19:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	05.13.2020 19:17	
o-Terphenyl	84-15-1	116	%	70-135	05.13.2020 19:17	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS22**
Lab Sample Id: 661220-014

Matrix: Soil
Date Collected: 05.11.2020 13:23

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 13:31

Basis: Wet Weight

Seq Number: 3125753

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.12.2020 19:10	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.12.2020 19:10	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.12.2020 19:10	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.12.2020 19:10	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.12.2020 19:10	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.12.2020 19:10	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.12.2020 19:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.12.2020 19:10	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.12.2020 19:10	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS23** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-015 Date Collected: 05.11.2020 13:26 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	93.4	9.98	mg/kg	05.12.2020 23:02		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.13.2020 19:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.13.2020 19:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.13.2020 19:37	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.13.2020 19:37	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.13.2020 19:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	05.13.2020 19:37	
o-Terphenyl	84-15-1	114	%	70-135	05.13.2020 19:37	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS23**
Lab Sample Id: 661220-015

Matrix: Soil
Date Collected: 05.11.2020 13:26

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 13:31

Basis: Wet Weight

Seq Number: 3125753

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.12.2020 19:31	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.12.2020 19:31	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.12.2020 19:31	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.12.2020 19:31	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.12.2020 19:31	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.12.2020 19:31	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.12.2020 19:31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.12.2020 19:31		
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.12.2020 19:31		



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Christera 32 CTB

Sample Id: **FS24** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-016 Date Collected: 05.11.2020 13:49 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	115	10.1	mg/kg	05.12.2020 23:08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.13.2020 19:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.13.2020 19:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.13.2020 19:58	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.13.2020 19:58	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.13.2020 19:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.13.2020 19:58	
o-Terphenyl	84-15-1	109	%	70-135	05.13.2020 19:58	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS24**
Lab Sample Id: 661220-016

Matrix: Soil
Date Collected: 05.11.2020 13:49

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 13:31

Basis: Wet Weight

Seq Number: 3125753

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.12.2020 19:53	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.12.2020 19:53	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.12.2020 19:53	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.12.2020 19:53	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.12.2020 19:53	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.12.2020 19:53	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.12.2020 19:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.12.2020 19:53	
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.12.2020 19:53	



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Christera 32 CTB

Sample Id: FS25 Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-017 Date Collected: 05.11.2020 13:53 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	135	10.0	mg/kg	05.12.2020 23:14		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	05.13.2020 20:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	05.13.2020 20:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	05.13.2020 20:19	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	05.13.2020 20:19	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	05.13.2020 20:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	05.13.2020 20:19	
o-Terphenyl	84-15-1	107	%	70-135	05.13.2020 20:19	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS25
Lab Sample Id: 661220-017

Matrix: Soil
Date Collected: 05.11.2020 13:53

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3125753

Prep Method: SW5035A

% Moisture:

Date Prep: 05.12.2020 13:31

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.12.2020 20:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.12.2020 20:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.12.2020 20:14	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.12.2020 20:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.12.2020 20:14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.12.2020 20:14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.12.2020 20:14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	05.12.2020 20:14		
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.12.2020 20:14		



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS26** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-018 Date Collected: 05.11.2020 13:56 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	85.3	9.92	mg/kg	05.12.2020 23:20		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.13.2020 20:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.13.2020 20:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.13.2020 20:40	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.13.2020 20:40	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.13.2020 20:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	05.13.2020 20:40	
o-Terphenyl	84-15-1	116	%	70-135	05.13.2020 20:40	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS26**
Lab Sample Id: 661220-018

Matrix: Soil
Date Collected: 05.11.2020 13:56

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 13:31

Basis: Wet Weight

Seq Number: 3125753

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.12.2020 21:19	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.12.2020 21:19	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.12.2020 21:19	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.12.2020 21:19	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.12.2020 21:19	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.12.2020 21:19	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.12.2020 21:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.12.2020 21:19	
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.12.2020 21:19	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS27 Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-019 Date Collected: 05.11.2020 14:01 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	63.3	9.94	mg/kg	05.12.2020 23:37		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125887

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.13.2020 21:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.13.2020 21:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.13.2020 21:01	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.13.2020 21:01	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.13.2020 21:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	05.13.2020 21:01	
o-Terphenyl	84-15-1	112	%	70-135	05.13.2020 21:01	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS27**
Lab Sample Id: 661220-019

Matrix: **Soil**
Date Collected: 05.11.2020 14:01

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: **MAB**

% Moisture:

Analyst: **MAB**

Date Prep: 05.12.2020 13:31

Basis: **Wet Weight**

Seq Number: 3125753

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.12.2020 21:40	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.12.2020 21:40	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.12.2020 21:40	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.12.2020 21:40	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.12.2020 21:40	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.12.2020 21:40	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.12.2020 21:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.12.2020 21:40	
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.12.2020 21:40	



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Christera 32 CTB

Sample Id: **FS28** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-020 Date Collected: 05.11.2020 14:06 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	191	9.96	mg/kg	05.12.2020 23:43		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125896

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.13.2020 13:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.13.2020 13:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.13.2020 13:24	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.13.2020 13:24	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.13.2020 13:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	05.13.2020 13:24	
o-Terphenyl	84-15-1	121	%	70-135	05.13.2020 13:24	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS28**
Lab Sample Id: 661220-020

Matrix: Soil
Date Collected: 05.11.2020 14:06

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 13:31

Basis: Wet Weight

Seq Number: 3125753

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.12.2020 22:02	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.12.2020 22:02	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.12.2020 22:02	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.12.2020 22:02	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.12.2020 22:02	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.12.2020 22:02	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.12.2020 22:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.12.2020 22:02	
4-Bromofluorobenzene	460-00-4	103	%	70-130	05.12.2020 22:02	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS29** Matrix: Soil Date Received: 05.12.2020 10:00
 Lab Sample Id: 661220-021 Date Collected: 05.11.2020 14:10 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3125748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	148	9.98	mg/kg	05.12.2020 23:49		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.13.2020 11:40 Basis: Wet Weight
 Seq Number: 3125908

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.13.2020 23:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.13.2020 23:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.13.2020 23:49	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.13.2020 23:49	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.13.2020 23:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	05.13.2020 23:49	
o-Terphenyl	84-15-1	116	%	70-135	05.13.2020 23:49	



Certificate of Analytical Results 661220

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS29**
Lab Sample Id: 661220-021

Matrix: Soil
Date Collected: 05.11.2020 14:10

Date Received: 05.12.2020 10:00
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.12.2020 13:31

Basis: Wet Weight

Seq Number: 3125753

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.12.2020 22:23	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.12.2020 22:23	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.12.2020 22:23	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.12.2020 22:23	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.12.2020 22:23	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.12.2020 22:23	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.12.2020 22:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.12.2020 22:23		
4-Bromofluorobenzene	460-00-4	103	%	70-130	05.12.2020 22:23		



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. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.
Christera 32 CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3125747

MB Sample Id: 7703191-1-BLK

Matrix: Solid

LCS Sample Id: 7703191-1-BKS

Prep Method: E300P

Date Prep: 05.12.2020

LCSD Sample Id: 7703191-1-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	251	100	250	100	90-110	0	20	mg/kg	05.12.2020 19:19	

Analytical Method: Chloride by EPA 300

Seq Number: 3125748

MB Sample Id: 7703192-1-BLK

Matrix: Solid

LCS Sample Id: 7703192-1-BKS

Prep Method: E300P

Date Prep: 05.12.2020

LCSD Sample Id: 7703192-1-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	251	100	250	100	90-110	0	20	mg/kg	05.12.2020 22:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3125747

Parent Sample Id: 661197-007

Matrix: Soil

MS Sample Id: 661197-007 S

Prep Method: E300P

Date Prep: 05.12.2020

MSD Sample Id: 661197-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	417	199	602	93	643	112	90-110	7	20	mg/kg	05.12.2020 19:37	X

Analytical Method: Chloride by EPA 300

Seq Number: 3125747

Parent Sample Id: 661220-004

Matrix: Soil

MS Sample Id: 661220-004 S

Prep Method: E300P

Date Prep: 05.12.2020

MSD Sample Id: 661220-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	32.8	200	223	95	223	95	90-110	0	20	mg/kg	05.12.2020 20:59	

Analytical Method: Chloride by EPA 300

Seq Number: 3125748

Parent Sample Id: 661220-014

Matrix: Soil

MS Sample Id: 661220-014 S

Prep Method: E300P

Date Prep: 05.12.2020

MSD Sample Id: 661220-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	55.9	200	251	98	253	98	90-110	1	20	mg/kg	05.12.2020 22:50	

Analytical Method: Chloride by EPA 300

Seq Number: 3125748

Parent Sample Id: 661295-003

Matrix: Soil

MS Sample Id: 661295-003 S

Prep Method: E300P

Date Prep: 05.12.2020

MSD Sample Id: 661295-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1150	201	1330	90	1350	99	90-110	1	20	mg/kg	05.13.2020 00:13	

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.
Christera 32 CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125887

MB Sample Id: 7703209-1-BLK

Matrix: Solid

LCS Sample Id: 7703209-1-BKS

Prep Method: SW8015P

Date Prep: 05.12.2020

LCSD Sample Id: 7703209-1-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	925	93	70-135	1	35	mg/kg	05.13.2020 12:43	
Diesel Range Organics (DRO)	<50.0	1000	1060	106	1040	104	70-135	2	35	mg/kg	05.13.2020 12:43	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	111		110		114		70-135	%	05.13.2020 12:43			
o-Terphenyl	120		109		107		70-135	%	05.13.2020 12:43			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125896

MB Sample Id: 7703211-1-BLK

Matrix: Solid

LCS Sample Id: 7703211-1-BKS

Prep Method: SW8015P

Date Prep: 05.12.2020

LCSD Sample Id: 7703211-1-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	1050	105	1010	101	70-135	4	35	mg/kg	05.13.2020 12:43	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	1100	110	70-135	3	35	mg/kg	05.13.2020 12:43	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	135		116		115		70-135	%	05.13.2020 12:43			
o-Terphenyl	135		110		110		70-135	%	05.13.2020 12:43			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125908

MB Sample Id: 7703305-1-BLK

Matrix: Solid

LCS Sample Id: 7703305-1-BKS

Prep Method: SW8015P

Date Prep: 05.13.2020

LCSD Sample Id: 7703305-1-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	991	99	996	100	70-135	1	35	mg/kg	05.14.2020 09:59	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1090	109	70-135	2	35	mg/kg	05.14.2020 09:59	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	135		123		122		70-135	%	05.14.2020 09:59			
o-Terphenyl	135		124		121		70-135	%	05.14.2020 09:59			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125887

Matrix: Solid
MB Sample Id: 7703209-1-BLK

Prep Method: SW8015P

Date Prep: 05.12.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.13.2020 12:23	

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

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

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

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



LT Environmental, Inc.
Christera 32 CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125896

Matrix: Solid

Prep Method: SW8015P

Date Prep: 05.12.2020

MB Sample Id: 7703211-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.13.2020 12:23	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125908

Matrix: Solid

Prep Method: SW8015P

Date Prep: 05.13.2020

MB Sample Id: 7703305-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.13.2020 12:23	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125887

Matrix: Soil

Prep Method: SW8015P

Date Prep: 05.12.2020

Parent Sample Id: 661197-013

MS Sample Id: 661197-013 S

MSD Sample Id: 661197-013 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)	<49.8	995	972	98	976	98	70-135	0	35	mg/kg	05.13.2020 13:45	
Diesel Range Organics (DRO)	<49.8	995	1120	113	1130	113	70-135	1	35	mg/kg	05.13.2020 13:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		124		70-135	%	05.13.2020 13:45
o-Terphenyl	121		120		70-135	%	05.13.2020 13:45

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125896

Matrix: Soil

Prep Method: SW8015P

Date Prep: 05.12.2020

Parent Sample Id: 661220-020

MS Sample Id: 661220-020 S

MSD Sample Id: 661220-020 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)	<50.2	1000	1110	111	1100	110	70-135	1	35	mg/kg	05.13.2020 13:45	
Diesel Range Organics (DRO)	<50.2	1000	1220	122	1060	106	70-135	14	35	mg/kg	05.13.2020 13:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		125		70-135	%	05.13.2020 13:45
o-Terphenyl	123		122		70-135	%	05.13.2020 13:45

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.
Christera 32 CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125908

Parent Sample Id: 661180-001

Matrix: Soil

MS Sample Id: 661180-001 S

Prep Method: SW8015P

Date Prep: 05.13.2020

MSD Sample Id: 661180-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	1010	101	1040	104	70-135	3	35	mg/kg	05.13.2020 23:07	
Diesel Range Organics (DRO)	1090	1000	2130	104	2300	121	70-135	8	35	mg/kg	05.13.2020 23:07	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		122		70-135	%	05.13.2020 23:07
o-Terphenyl	107		110		70-135	%	05.13.2020 23:07

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125752

MB Sample Id: 7703186-1-BLK

Matrix: Solid

LCS Sample Id: 7703186-1-BKS

Prep Method: SW5035A

Date Prep: 05.12.2020

LCSD Sample Id: 7703186-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.101	101	0.105	105	70-130	4	35	mg/kg	05.12.2020 13:11	
Toluene	<0.00200	0.100	0.0974	97	0.101	101	70-130	4	35	mg/kg	05.12.2020 13:11	
Ethylbenzene	<0.00200	0.100	0.0925	93	0.0957	96	71-129	3	35	mg/kg	05.12.2020 13:11	
m,p-Xylenes	<0.00400	0.200	0.190	95	0.196	98	70-135	3	35	mg/kg	05.12.2020 13:11	
o-Xylene	<0.00200	0.100	0.0956	96	0.0999	100	71-133	4	35	mg/kg	05.12.2020 13:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		102		103		70-130	%	05.12.2020 13:11
4-Bromofluorobenzene	98		93		92		70-130	%	05.12.2020 13:11

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125753

MB Sample Id: 7703187-1-BLK

Matrix: Solid

LCS Sample Id: 7703187-1-BKS

Prep Method: SW5035A

Date Prep: 05.12.2020

LCSD Sample Id: 7703187-1-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	0.111	111	0.112	113	70-130	1	35	mg/kg	05.12.2020 15:14	
Toluene	<0.00200	0.100	0.101	101	0.103	104	70-130	2	35	mg/kg	05.12.2020 15:14	
Ethylbenzene	<0.00200	0.100	0.0937	94	0.0960	97	71-129	2	35	mg/kg	05.12.2020 15:14	
m,p-Xylenes	<0.00400	0.200	0.181	91	0.185	93	70-135	2	35	mg/kg	05.12.2020 15:14	
o-Xylene	<0.00200	0.100	0.0941	94	0.0961	97	71-133	2	35	mg/kg	05.12.2020 15:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	114		106		108		70-130	%	05.12.2020 15:14
4-Bromofluorobenzene	106		99		100		70-130	%	05.12.2020 15:14

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.
Christera 32 CTB

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125752

Parent Sample Id: 661197-001

Matrix: Soil

MS Sample Id: 661197-001 S

Prep Method: SW5035A

Date Prep: 05.12.2020

MSD Sample Id: 661197-001 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	0.0987	99	0.0774	77	70-130	24	35	mg/kg	05.12.2020 13:52	
Toluene	<0.00201	0.100	0.0920	92	0.0763	76	70-130	19	35	mg/kg	05.12.2020 13:52	
Ethylbenzene	<0.00201	0.100	0.0799	80	0.0794	79	71-129	1	35	mg/kg	05.12.2020 13:52	
m,p-Xylenes	<0.00402	0.201	0.161	80	0.142	70	70-135	13	35	mg/kg	05.12.2020 13:52	
o-Xylene	<0.00201	0.100	0.0815	82	0.0721	71	71-133	12	35	mg/kg	05.12.2020 13:52	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		101		70-130	%	05.12.2020 13:52
4-Bromofluorobenzene	92		96		70-130	%	05.12.2020 13:52

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125753

Parent Sample Id: 661220-008

Matrix: Soil

MS Sample Id: 661220-008 S

Prep Method: SW5035A

Date Prep: 05.12.2020

MSD Sample Id: 661220-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.130	130	0.127	127	70-130	2	35	mg/kg	05.12.2020 15:57	
Toluene	<0.00200	0.0998	0.118	118	0.115	115	70-130	3	35	mg/kg	05.12.2020 15:57	
Ethylbenzene	<0.00200	0.0998	0.111	111	0.109	109	71-129	2	35	mg/kg	05.12.2020 15:57	
m,p-Xylenes	<0.00399	0.200	0.216	108	0.212	106	70-135	2	35	mg/kg	05.12.2020 15:57	
o-Xylene	<0.00200	0.0998	0.110	110	0.108	108	71-133	2	35	mg/kg	05.12.2020 15:57	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		107		70-130	%	05.12.2020 15:57
4-Bromofluorobenzene	102		101		70-130	%	05.12.2020 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



Chain of Custody

Work Order No:

161220

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Casabad, NM (432) 704-5440
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www.xenco.com

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Project Manager:	Dao Mai	Bill to: (if different)	Kyle Little
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Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Casabad, NM 88220
Phone:	(432) 236-3849	Email:	femthe@xenco.com, dmaior@xenco.com

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

Project Name:	Christiana 32 CTB	Turn Around	☒	Pres. Code	
Project Number:	C12920061	Routine	☒		
Project Location:	Lea County	Rush:			
Sampler's Name:	Fatima Smith	Due Date:			
PO #:	3/28/20 spill date	Quote #:			

SAMPLE RECEIPT				Thermometer ID		Correction Factor		Total Containers		ANALYSIS REQUEST		Preservative Codes	
Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)				
FS07		S	5/7/20	1036	2'	1	X	X	X				
FS09			5/7/20	1231	2.5'								
FS11			5/11/20	1031	3'								
FS12				1040									
FS13				1044									
FS14				1129									
FS15				1136									
FS16				1139									
FS17				1159									
FS08				1224									

Total 200.7 / 6010 200.8 / 6020:

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

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

1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	5/12/20 4:00 PM	<i>[Signature]</i>	<i>[Signature]</i>	5/12/20 10:00



Chain of Custody

Work Order No: 661220

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Crasbad, NM (432) 704-5440
 Phoenix, AZ (480) 385-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 699-6701

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Page 2 of 3

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

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

ANALYSIS REQUEST

Project Name:	Chistara 32 CTB	Turn Around	☒	Pres. Code	
Project Number:	012920061	Route:	☒		
Project Location:	Lea County	Rush:			
Sampler's Name:	Fatima Smith	Due Date:			
PO #:	3/28/20 spill date	Quote #:			

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

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	Preservative Codes	Sample Comments
FE18		S	5/11/20	1312	3'	1	X	X	X		
ES19				1315							
ES21				1320							
ES22				1323							
ES23				1326							
ES24				1349							
ES25				1353							
ES26				1356							
ES27				1401							
ES28				1406							

Total 200.7 / 6010 200.8 / 6020:

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

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

1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	5/12/20 1000	<i>[Signature]</i>	<i>[Signature]</i>	5/12/20 1000



Chain of Custody

Work Order No: 1661220

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Page 3 of 3

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

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

Project Name:	Christera 32 CTB	Turn Around	☒	Pres. Code	
Project Number:	012920061	Routine	☒		
Project Location:	Lea County	Rush:			
Sampler's Name:	Fatima Smith	Due Date:			
PO #:	3/26/20 spill date	Quote #:			

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):						
Received Intact:	Yes	No	Thermometer ID			
Cooler Custody Seals:	Yes	No	Correction Factor:			
Sample Custody Seals:	Yes	No	Total Containers:			

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth
	ES29	S	5/11/20	1410	3'

Number of Containers	1
TPH (EPA 8015)	X
BTEX (EPA 0-8021)	X
Chloride (EPA 300.0)	X

ANALYSIS REQUEST	Preservative Codes
	MeOH: Me
	None: NO
	HNO3: HN
	H2SO4: H2
	HCL: HL
	NaOH: Na
	Zn Acetate+ NaOH: Zn
	TAT starts the day received by the lab, if received by 4:00pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020:

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

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

1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	5-12-2019: 09:00	<i>[Signature]</i>	<i>[Signature]</i>	5/12/20 10:00

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 05.12.2020 10.00.00 AM

Work Order #: 661220

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)?	2.4
#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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 05.12.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.14.2020



Analytical Report 661356

for

LT Environmental, Inc.

Project Manager: Dan Moir

Christera 32 CTB

012920061

05.15.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
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)



05.15.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **661356**

Christera 32 CTB

Project Address: Lea County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 661356. 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. 661356 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 Manager

A Small Business and Minority Company

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



Sample Cross Reference 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS20	S	05.12.2020 08:41	3 ft	661356-001
FS32	S	05.12.2020 09:57	3 ft	661356-002
FS33	S	05.12.2020 10:00	3 ft	661356-003
FS34	S	05.12.2020 10:04	3 ft	661356-004
FS35	S	05.12.2020 10:07	3 ft	661356-005
FS36	S	05.12.2020 10:34	3 ft	661356-006
FS37	S	05.12.2020 10:37	3 ft	661356-007
FS38	S	05.12.2020 10:40	3 ft	661356-008
FS31	S	05.12.2020 11:23	3 ft	661356-009
FS10	S	05.12.2020 12:19	3 ft	661356-010
FS39	S	05.12.2020 12:23	3 ft	661356-011
FS42	S	05.12.2020 12:34	3 ft	661356-012
FS43	S	05.12.2020 12:37	3 ft	661356-013
FS44	S	05.12.2020 13:15	3 ft	661356-014
FS45	S	05.12.2020 13:18	3 ft	661356-015
FS46	S	05.12.2020 13:21	3 ft	661356-016
FS47	S	05.12.2020 13:24	3 ft	661356-017
FS48	S	05.12.2020 13:28	3 ft	661356-018
FS49	S	05.12.2020 13:31	3 ft	661356-019
FS50	S	05.12.2020 14:04	3 ft	661356-020
FS51	S	05.12.2020 14:09	3 ft	661356-021
FS52	S	05.12.2020 14:13	3 ft	661356-022
FS53	S	05.12.2020 14:16	3 ft	661356-023
FS30	S	05.12.2020 13:07	3.5 ft	661356-024
FS40	S	05.12.2020 14:44	3 ft	661356-025
FS41	S	05.12.2020 14:47	3 ft	661356-026
SW01	S	05.12.2020 15:12	0 - 2.5 ft	661356-027
SW04	S	05.12.2020 15:15	0 - 3 ft	661356-028
SW05	S	05.12.2020 15:20	0 - 3 ft	661356-029
SW06	S	05.12.2020 15:21	0 - 3 ft	661356-030



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *Christera 32 CTB*

Project ID: 012920061
Work Order Number(s): 661356

Report Date: 05.15.2020
Date Received: 05.13.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 661356

LT Environmental, Inc., Arvada, CO

Project Name: Christera 32 CTB

Project Id: 012920061

Contact: Dan Moir

Project Location: Lea County

Date Received in Lab: Wed 05.13.2020 08:55

Report Date: 05.15.2020 15:40

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661356-001	661356-002	661356-003	661356-004	661356-005	661356-006
	<i>Field Id:</i>	FS20	FS32	FS33	FS34	FS35	FS36
	<i>Depth:</i>	3- ft	3- ft	3- ft	3- ft	3- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.12.2020 08:41	05.12.2020 09:57	05.12.2020 10:00	05.12.2020 10:04	05.12.2020 10:07	05.12.2020 10:34
BTEX by EPA 8021B	<i>Extracted:</i>	05.13.2020 11:21	05.13.2020 11:21	05.13.2020 11:21	05.13.2020 11:21	05.13.2020 11:21	05.13.2020 11:21
	<i>Analyzed:</i>	05.13.2020 15:20	05.13.2020 15:41	05.13.2020 16:03	05.13.2020 16:24	05.13.2020 16:45	05.13.2020 17:07
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.00201 0.00201	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00201 0.00201	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00402 0.00402	<0.00398 0.00398	<0.00403 0.00403	<0.00402 0.00402	<0.00401 0.00401	<0.00404 0.00404
o-Xylene		<0.00201 0.00201	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00201 0.00201	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		<0.00201 0.00201	<0.00199 0.00199	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	05.13.2020 12:02	05.13.2020 12:02	05.13.2020 12:02	05.13.2020 12:02	05.13.2020 12:02	05.13.2020 12:02
	<i>Analyzed:</i>	05.13.2020 13:06	05.13.2020 13:12	05.13.2020 13:18	05.13.2020 13:24	05.13.2020 13:41	05.13.2020 13:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		396 10.0	68.3 10.0	71.1 10.1	513 10.1	140 10.0	302 10.0
TPH by SW8015 Mod	<i>Extracted:</i>	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00
	<i>Analyzed:</i>	05.14.2020 19:27	05.14.2020 19:47	05.14.2020 20:08	05.14.2020 20:28	05.14.2020 20:49	05.14.2020 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)		<50.1 50.1	<50.0 50.0	<50.2 50.2	<50.0 50.0	<50.1 50.1	<49.9 49.9
Diesel Range Organics (DRO)		<50.1 50.1	<50.0 50.0	<50.2 50.2	<50.0 50.0	<50.1 50.1	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.0 50.0	<50.2 50.2	<50.0 50.0	<50.1 50.1	<49.9 49.9
Total GRO-DRO		<50.1 50.1	<50.0 50.0	<50.2 50.2	<50.0 50.0	<50.1 50.1	<49.9 49.9
Total TPH		<50.1 50.1	<50.0 50.0	<50.2 50.2	<50.0 50.0	<50.1 50.1	<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 Manager



Certificate of Analysis Summary 661356

LT Environmental, Inc., Arvada, CO

Project Name: Christera 32 CTB

Project Id: 012920061

Contact: Dan Moir

Project Location: Lea County

Date Received in Lab: Wed 05.13.2020 08:55

Report Date: 05.15.2020 15:40

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661356-007	661356-008	661356-009	661356-010	661356-011	661356-012
	<i>Field Id:</i>	FS37	FS38	FS31	FS10	FS39	FS42
	<i>Depth:</i>	3- ft	3- ft	3- ft	3- ft	3- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.12.2020 10:37	05.12.2020 10:40	05.12.2020 11:23	05.12.2020 12:19	05.12.2020 12:23	05.12.2020 12:34
BTEX by EPA 8021B	<i>Extracted:</i>	05.13.2020 11:21	05.13.2020 11:21	05.13.2020 11:21	05.13.2020 11:21	05.13.2020 11:21	05.13.2020 11:21
	<i>Analyzed:</i>	05.13.2020 17:28	05.13.2020 17:50	05.13.2020 18:11	05.13.2020 19:15	05.13.2020 19:37	05.13.2020 19:58
	<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	<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00402 0.00402	<0.00403 0.00403	<0.00398 0.00398	<0.00401 0.00401	<0.00399 0.00399
o-Xylene		<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	05.13.2020 12:02	05.13.2020 12:02	05.13.2020 12:02	05.13.2020 12:02	05.13.2020 12:02	05.13.2020 12:02
	<i>Analyzed:</i>	05.13.2020 13:53	05.13.2020 13:59	05.13.2020 14:05	05.13.2020 14:11	05.13.2020 14:28	05.13.2020 14:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		462 10.0	94.9 9.98	65.3 10.0	197 10.0	357 9.88	33.0 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00
	<i>Analyzed:</i>	05.14.2020 21:31	05.14.2020 21:52	05.14.2020 22:13	05.14.2020 22:34	05.14.2020 14:57	05.14.2020 16:00
	<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	<50.0 50.0	<49.9 49.9	<50.1 50.1	<49.9 49.9	<50.2 50.2
Diesel Range Organics (DRO)		<50.3 50.3	<50.0 50.0	<49.9 49.9	<50.1 50.1	<49.9 49.9	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<50.0 50.0	<49.9 49.9	<50.1 50.1	<49.9 49.9	<50.2 50.2
Total GRO-DRO		<50.3 50.3	<50.0 50.0	<49.9 49.9	<50.1 50.1	<49.9 49.9	<50.2 50.2
Total TPH		<50.3 50.3	<50.0 50.0	<49.9 49.9	<50.1 50.1	<49.9 49.9	<50.2 50.2

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 661356

LT Environmental, Inc., Arvada, CO

Project Name: Christera 32 CTB

Project Id: 012920061

Contact: Dan Moir

Project Location: Lea County

Date Received in Lab: Wed 05.13.2020 08:55

Report Date: 05.15.2020 15:40

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661356-013	661356-014	661356-015	661356-016	661356-017	661356-018
	<i>Field Id:</i>	FS43	FS44	FS45	FS46	FS47	FS48
	<i>Depth:</i>	3- ft	3- ft	3- ft	3- ft	3- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.12.2020 12:37	05.12.2020 13:15	05.12.2020 13:18	05.12.2020 13:21	05.12.2020 13:24	05.12.2020 13:28
BTEX by EPA 8021B	<i>Extracted:</i>	05.13.2020 11:21	05.13.2020 11:21	05.13.2020 11:21	05.13.2020 11:21	05.13.2020 11:21	05.13.2020 11:21
	<i>Analyzed:</i>	05.13.2020 20:19	05.13.2020 20:41	05.13.2020 21:02	05.13.2020 21:24	05.13.2020 21:45	05.13.2020 22:07
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00401 0.00401	<0.00399 0.00399	<0.00398 0.00398	<0.00401 0.00401	<0.00401 0.00401	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	05.13.2020 12:02	05.13.2020 12:02	05.13.2020 12:02	05.13.2020 12:02	05.13.2020 12:02	05.13.2020 12:02
	<i>Analyzed:</i>	05.13.2020 14:52	05.13.2020 14:58	05.13.2020 15:04	05.13.2020 15:09	05.13.2020 15:15	05.13.2020 15:21
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		22.1 10.1	37.5 10.1	95.3 9.88	87.8 9.90	109 10.1	36.9 10.0
TPH by SW8015 Mod	<i>Extracted:</i>	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00
	<i>Analyzed:</i>	05.14.2020 16:20	05.14.2020 16:42	05.14.2020 17:02	05.14.2020 17:22	05.14.2020 17:43	05.14.2020 18:04
	<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	<49.9 49.9	<50.2 50.2	<49.8 49.8	<49.8 49.8
Diesel Range Organics (DRO)		<49.8 49.8	<50.2 50.2	<49.9 49.9	<50.2 50.2	<49.8 49.8	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.2 50.2	<49.9 49.9	<50.2 50.2	<49.8 49.8	<49.8 49.8
Total GRO-DRO		<49.8 49.8	<50.2 50.2	<49.9 49.9	<50.2 50.2	<49.8 49.8	<49.8 49.8
Total TPH		<49.8 49.8	<50.2 50.2	<49.9 49.9	<50.2 50.2	<49.8 49.8	<49.8 49.8

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 661356

LT Environmental, Inc., Arvada, CO

Project Name: Christera 32 CTB

Project Id: 012920061

Contact: Dan Moir

Project Location: Lea County

Date Received in Lab: Wed 05.13.2020 08:55

Report Date: 05.15.2020 15:40

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661356-019	661356-020	661356-021	661356-022	661356-023	661356-024
	<i>Field Id:</i>	FS49	FS50	FS51	FS52	FS53	FS30
	<i>Depth:</i>	3- ft	3- ft	3- ft	3- ft	3- ft	3.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.12.2020 13:31	05.12.2020 14:04	05.12.2020 14:09	05.12.2020 14:13	05.12.2020 14:16	05.12.2020 13:07
BTEX by EPA 8021B	<i>Extracted:</i>	05.13.2020 11:21	05.13.2020 17:06	05.13.2020 17:06	05.13.2020 17:06	05.13.2020 17:06	05.13.2020 17:06
	<i>Analyzed:</i>	05.13.2020 22:28	05.13.2020 19:01	05.14.2020 00:08	05.14.2020 00:28	05.13.2020 20:44	05.13.2020 21:04
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Toluene		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Ethylbenzene		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
m,p-Xylenes		<0.00397 0.00397	<0.00397 0.00397	<0.00401 0.00401	<0.00402 0.00402	<0.00396 0.00396	<0.00396 0.00396
o-Xylene		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Total Xylenes		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Total BTEX		<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	05.13.2020 12:02	05.13.2020 16:00	05.13.2020 16:00	05.13.2020 16:00	05.13.2020 16:00	05.13.2020 16:00
	<i>Analyzed:</i>	05.13.2020 15:27	05.13.2020 16:02	05.13.2020 16:20	05.13.2020 16:26	05.13.2020 16:32	05.13.2020 16:37
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		55.3 10.0	123 10.0	290 9.98	336 9.98	169 9.94	275 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00
	<i>Analyzed:</i>	05.14.2020 18:25	05.14.2020 18:46	05.14.2020 19:27	05.14.2020 19:47	05.14.2020 20:08	05.14.2020 20:28
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<49.9 49.9	<50.1 50.1	<49.8 49.8	<49.9 49.9	<50.2 50.2
Diesel Range Organics (DRO)		<50.2 50.2	<49.9 49.9	<50.1 50.1	<49.8 49.8	<49.9 49.9	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.9 49.9	<50.1 50.1	<49.8 49.8	<49.9 49.9	<50.2 50.2
Total GRO-DRO		<50.2 50.2	<49.9 49.9	<50.1 50.1	<49.8 49.8	<49.9 49.9	<50.2 50.2
Total TPH		<50.2 50.2	<49.9 49.9	<50.1 50.1	<49.8 49.8	<49.9 49.9	<50.2 50.2

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 661356

LT Environmental, Inc., Arvada, CO

Project Name: Christera 32 CTB

Project Id: 012920061

Contact: Dan Moir

Project Location: Lea County

Date Received in Lab: Wed 05.13.2020 08:55

Report Date: 05.15.2020 15:40

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661356-025	661356-026	661356-027	661356-028	661356-029	661356-030
	<i>Field Id:</i>	FS40	FS41	SW01	SW04	SW05	SW06
	<i>Depth:</i>	3- ft	3- ft	0-2.5 ft	0-3 ft	0-3 ft	0-3 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.12.2020 14:44	05.12.2020 14:47	05.12.2020 15:12	05.12.2020 15:15	05.12.2020 15:20	05.12.2020 15:21
BTEX by EPA 8021B	<i>Extracted:</i>	05.13.2020 17:06	05.13.2020 17:06	05.13.2020 17:06	05.13.2020 17:06	05.13.2020 17:06	05.13.2020 17:06
	<i>Analyzed:</i>	05.13.2020 21:24	05.13.2020 21:45	05.13.2020 22:05	05.13.2020 23:07	05.13.2020 23:27	05.13.2020 23:48
	<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	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
Toluene		<0.00200 0.00200	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
m,p-Xylenes		<0.00400 0.00400	<0.00403 0.00403	<0.00397 0.00397	<0.00397 0.00397	<0.00403 0.00403	<0.00402 0.00402
o-Xylene		<0.00200 0.00200	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
Total BTEX		<0.00200 0.00200	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	05.13.2020 16:00	05.13.2020 16:00	05.13.2020 16:00	05.13.2020 16:00	05.13.2020 16:00	05.13.2020 16:00
	<i>Analyzed:</i>	05.13.2020 16:43	05.13.2020 17:01	05.13.2020 17:07	05.13.2020 17:13	05.13.2020 17:19	05.13.2020 17:24
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		67.1 10.0	170 9.92	83.9 9.98	87.4 10.0	57.4 10.0	28.6 10.0
TPH by SW8015 Mod	<i>Extracted:</i>	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00	05.14.2020 12:00
	<i>Analyzed:</i>	05.14.2020 20:49	05.14.2020 21:10	05.14.2020 21:31	05.14.2020 21:52	05.14.2020 22:13	05.14.2020 22:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<49.8 49.8	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.2 50.2
Diesel Range Organics (DRO)		<50.2 50.2	<49.8 49.8	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.8 49.8	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.2 50.2
Total GRO-DRO		<50.2 50.2	<49.8 49.8	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.2 50.2
Total TPH		<50.2 50.2	<49.8 49.8	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.2 50.2

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Jessica Kramer
Project Manager



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS20** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-001 Date Collected: 05.12.2020 08:41 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	396	10.0	mg/kg	05.13.2020 13:06		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3126032

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.14.2020 19:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.14.2020 19:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.14.2020 19:27	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.14.2020 19:27	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.14.2020 19:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	05.14.2020 19:27	
o-Terphenyl	84-15-1	108	%	70-135	05.14.2020 19:27	



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS20**
Lab Sample Id: 661356-001

Matrix: Soil
Date Collected: 05.12.2020 08:41

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.13.2020 15:20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.13.2020 15:20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.13.2020 15:20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.13.2020 15:20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.13.2020 15:20	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.13.2020 15:20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.13.2020 15:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.13.2020 15:20	
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.13.2020 15:20	



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS32** Matrix: **Soil** Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-002 Date Collected: 05.12.2020 09:57 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 05.13.2020 12:02 Basis: **Wet Weight**
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	68.3	10.0	mg/kg	05.13.2020 13:12		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 05.14.2020 12:00 Basis: **Wet Weight**
 Seq Number: 3126032

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.14.2020 19:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.14.2020 19:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.14.2020 19:47	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.14.2020 19:47	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.14.2020 19:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	05.14.2020 19:47	
o-Terphenyl	84-15-1	112	%	70-135	05.14.2020 19:47	



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS32**
Lab Sample Id: 661356-002

Matrix: Soil
Date Collected: 05.12.2020 09:57

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.13.2020 15:41	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.13.2020 15:41	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.13.2020 15:41	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.13.2020 15:41	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.13.2020 15:41	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.13.2020 15:41	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.13.2020 15:41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.13.2020 15:41		
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.13.2020 15:41		



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS33** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-003 Date Collected: 05.12.2020 10:00 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	71.1	10.1	mg/kg	05.13.2020 13:18		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3126032

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.14.2020 20:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.14.2020 20:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.14.2020 20:08	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.14.2020 20:08	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.14.2020 20:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	05.14.2020 20:08	
o-Terphenyl	84-15-1	110	%	70-135	05.14.2020 20:08	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS33**
Lab Sample Id: 661356-003

Matrix: Soil
Date Collected: 05.12.2020 10:00

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.13.2020 16:03	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.13.2020 16:03	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.13.2020 16:03	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.13.2020 16:03	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.13.2020 16:03	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.13.2020 16:03	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.13.2020 16:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.13.2020 16:03		
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.13.2020 16:03		



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Christera 32 CTB

Sample Id: **FS34** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-004 Date Collected: 05.12.2020 10:04 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	513	10.1	mg/kg	05.13.2020 13:24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3126032

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.14.2020 20:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.14.2020 20:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.14.2020 20:28	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.14.2020 20:28	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.14.2020 20:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	05.14.2020 20:28	
o-Terphenyl	84-15-1	116	%	70-135	05.14.2020 20:28	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS34**
Lab Sample Id: 661356-004

Matrix: Soil
Date Collected: 05.12.2020 10:04

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.13.2020 16:24	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.13.2020 16:24	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.13.2020 16:24	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.13.2020 16:24	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.13.2020 16:24	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.13.2020 16:24	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.13.2020 16:24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.13.2020 16:24		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.13.2020 16:24		



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Christera 32 CTB

Sample Id: FS35 Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-005 Date Collected: 05.12.2020 10:07 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	140	10.0	mg/kg	05.13.2020 13:41		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3126032

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.14.2020 20:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.14.2020 20:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.14.2020 20:49	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.14.2020 20:49	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.14.2020 20:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	05.14.2020 20:49	
o-Terphenyl	84-15-1	113	%	70-135	05.14.2020 20:49	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS35
Lab Sample Id: 661356-005

Matrix: Soil
Date Collected: 05.12.2020 10:07

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.13.2020 16:45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.13.2020 16:45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.13.2020 16:45	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.13.2020 16:45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.13.2020 16:45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.13.2020 16:45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.13.2020 16:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.13.2020 16:45	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.13.2020 16:45	



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Christera 32 CTB

Sample Id: **FS36** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-006 Date Collected: 05.12.2020 10:34 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	302	10.0	mg/kg	05.13.2020 13:47		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3126032

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.14.2020 21:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.14.2020 21:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.14.2020 21:10	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.14.2020 21:10	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.14.2020 21:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	05.14.2020 21:10	
o-Terphenyl	84-15-1	111	%	70-135	05.14.2020 21:10	



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Christera 32 CTB

Sample Id: **FS36**
Lab Sample Id: 661356-006

Matrix: Soil
Date Collected: 05.12.2020 10:34

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.13.2020 17:07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.13.2020 17:07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.13.2020 17:07	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.13.2020 17:07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.13.2020 17:07	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.13.2020 17:07	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.13.2020 17:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.13.2020 17:07		
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.13.2020 17:07		



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Christera 32 CTB

Sample Id: FS37 Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-007 Date Collected: 05.12.2020 10:37 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	462	10.0	mg/kg	05.13.2020 13:53		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3126032

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	05.14.2020 21:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	05.14.2020 21:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	05.14.2020 21:31	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	05.14.2020 21:31	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	05.14.2020 21:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.14.2020 21:31	
o-Terphenyl	84-15-1	110	%	70-135	05.14.2020 21:31	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS37
Lab Sample Id: 661356-007

Matrix: Soil
Date Collected: 05.12.2020 10:37

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.13.2020 17:28	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.13.2020 17:28	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.13.2020 17:28	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.13.2020 17:28	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.13.2020 17:28	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.13.2020 17:28	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.13.2020 17:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.13.2020 17:28		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.13.2020 17:28		



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Christera 32 CTB

Sample Id: **FS38** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-008 Date Collected: 05.12.2020 10:40 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	94.9	9.98	mg/kg	05.13.2020 13:59		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3126032

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.14.2020 21:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.14.2020 21:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.14.2020 21:52	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.14.2020 21:52	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.14.2020 21:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	05.14.2020 21:52	
o-Terphenyl	84-15-1	110	%	70-135	05.14.2020 21:52	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS38**
Lab Sample Id: 661356-008

Matrix: Soil
Date Collected: 05.12.2020 10:40

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.13.2020 17:50	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.13.2020 17:50	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.13.2020 17:50	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.13.2020 17:50	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.13.2020 17:50	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.13.2020 17:50	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.13.2020 17:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.13.2020 17:50	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.13.2020 17:50	



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Christera 32 CTB

Sample Id: **FS31** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-009 Date Collected: 05.12.2020 11:23 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	65.3	10.0	mg/kg	05.13.2020 14:05		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3126032

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.14.2020 22:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.14.2020 22:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.14.2020 22:13	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.14.2020 22:13	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.14.2020 22:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	05.14.2020 22:13	
o-Terphenyl	84-15-1	111	%	70-135	05.14.2020 22:13	



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Christera 32 CTB

Sample Id: **FS31**
Lab Sample Id: 661356-009

Matrix: Soil
Date Collected: 05.12.2020 11:23

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.13.2020 18:11	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.13.2020 18:11	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.13.2020 18:11	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.13.2020 18:11	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.13.2020 18:11	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.13.2020 18:11	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.13.2020 18:11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	05.13.2020 18:11		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.13.2020 18:11		



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Christera 32 CTB

Sample Id: **FS10** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-010 Date Collected: 05.12.2020 12:19 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	197	10.0	mg/kg	05.13.2020 14:11		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3126032

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.14.2020 22:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.14.2020 22:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.14.2020 22:34	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.14.2020 22:34	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.14.2020 22:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	05.14.2020 22:34	
o-Terphenyl	84-15-1	113	%	70-135	05.14.2020 22:34	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS10**
Lab Sample Id: 661356-010

Matrix: Soil
Date Collected: 05.12.2020 12:19

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.13.2020 19:15	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.13.2020 19:15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.13.2020 19:15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.13.2020 19:15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.13.2020 19:15	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.13.2020 19:15	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.13.2020 19:15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.13.2020 19:15		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.13.2020 19:15		



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS39** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-011 Date Collected: 05.12.2020 12:23 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	357	9.88	mg/kg	05.13.2020 14:28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.14.2020 14:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.14.2020 14:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.14.2020 14:57	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.14.2020 14:57	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.14.2020 14:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.14.2020 14:57	
o-Terphenyl	84-15-1	112	%	70-135	05.14.2020 14:57	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS39**
Lab Sample Id: 661356-011

Matrix: Soil
Date Collected: 05.12.2020 12:23

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.13.2020 19:37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.13.2020 19:37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.13.2020 19:37	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.13.2020 19:37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.13.2020 19:37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.13.2020 19:37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.13.2020 19:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.13.2020 19:37	
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.13.2020 19:37	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS42** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-012 Date Collected: 05.12.2020 12:34 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	33.0	9.98	mg/kg	05.13.2020 14:34		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.14.2020 16:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.14.2020 16:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.14.2020 16:00	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.14.2020 16:00	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.14.2020 16:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	05.14.2020 16:00	
o-Terphenyl	84-15-1	114	%	70-135	05.14.2020 16:00	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS42**
Lab Sample Id: 661356-012

Matrix: Soil
Date Collected: 05.12.2020 12:34

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.13.2020 19:58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.13.2020 19:58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.13.2020 19:58	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.13.2020 19:58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.13.2020 19:58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.13.2020 19:58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.13.2020 19:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.13.2020 19:58		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.13.2020 19:58		



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS43** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-013 Date Collected: 05.12.2020 12:37 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.1	10.1	mg/kg	05.13.2020 14:52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.14.2020 16:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.14.2020 16:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.14.2020 16:20	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.14.2020 16:20	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.14.2020 16:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	05.14.2020 16:20	
o-Terphenyl	84-15-1	112	%	70-135	05.14.2020 16:20	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS43**
Lab Sample Id: 661356-013

Matrix: Soil
Date Collected: 05.12.2020 12:37

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.13.2020 20:19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.13.2020 20:19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.13.2020 20:19	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.13.2020 20:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.13.2020 20:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.13.2020 20:19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.13.2020 20:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.13.2020 20:19	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.13.2020 20:19	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS44** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-014 Date Collected: 05.12.2020 13:15 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	37.5	10.1	mg/kg	05.13.2020 14:58		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.14.2020 16:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.14.2020 16:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.14.2020 16:42	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.14.2020 16:42	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.14.2020 16:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	05.14.2020 16:42	
o-Terphenyl	84-15-1	111	%	70-135	05.14.2020 16:42	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS44**
Lab Sample Id: 661356-014

Matrix: Soil
Date Collected: 05.12.2020 13:15

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.13.2020 20:41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.13.2020 20:41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.13.2020 20:41	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.13.2020 20:41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.13.2020 20:41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.13.2020 20:41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.13.2020 20:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.13.2020 20:41	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.13.2020 20:41	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS45** Matrix: **Soil** Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-015 Date Collected: 05.12.2020 13:18 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 05.13.2020 12:02 Basis: **Wet Weight**
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	95.3	9.88	mg/kg	05.13.2020 15:04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 05.14.2020 12:00 Basis: **Wet Weight**
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.14.2020 17:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.14.2020 17:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.14.2020 17:02	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.14.2020 17:02	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.14.2020 17:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	05.14.2020 17:02	
o-Terphenyl	84-15-1	113	%	70-135	05.14.2020 17:02	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS45**
Lab Sample Id: 661356-015

Matrix: Soil
Date Collected: 05.12.2020 13:18

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.13.2020 21:02	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.13.2020 21:02	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.13.2020 21:02	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.13.2020 21:02	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.13.2020 21:02	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.13.2020 21:02	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.13.2020 21:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.13.2020 21:02	
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.13.2020 21:02	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS46** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-016 Date Collected: 05.12.2020 13:21 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	87.8	9.90	mg/kg	05.13.2020 15:09		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.14.2020 17:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.14.2020 17:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.14.2020 17:22	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.14.2020 17:22	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.14.2020 17:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.14.2020 17:22	
o-Terphenyl	84-15-1	113	%	70-135	05.14.2020 17:22	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS46**
Lab Sample Id: 661356-016

Matrix: Soil
Date Collected: 05.12.2020 13:21

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.13.2020 21:24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.13.2020 21:24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.13.2020 21:24	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.13.2020 21:24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.13.2020 21:24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.13.2020 21:24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.13.2020 21:24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	05.13.2020 21:24		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.13.2020 21:24		



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Christera 32 CTB

Sample Id: **FS47** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-017 Date Collected: 05.12.2020 13:24 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	109	10.1	mg/kg	05.13.2020 15:15		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.14.2020 17:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.14.2020 17:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.14.2020 17:43	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.14.2020 17:43	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.14.2020 17:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.14.2020 17:43	
o-Terphenyl	84-15-1	111	%	70-135	05.14.2020 17:43	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS47**
Lab Sample Id: 661356-017

Matrix: Soil
Date Collected: 05.12.2020 13:24

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3125869

Prep Method: SW5035A

% Moisture:

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.13.2020 21:45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.13.2020 21:45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.13.2020 21:45	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.13.2020 21:45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.13.2020 21:45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.13.2020 21:45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.13.2020 21:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.13.2020 21:45	
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.13.2020 21:45	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS48** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-018 Date Collected: 05.12.2020 13:28 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	36.9	10.0	mg/kg	05.13.2020 15:21		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.14.2020 18:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.14.2020 18:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.14.2020 18:04	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.14.2020 18:04	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.14.2020 18:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.14.2020 18:04	
o-Terphenyl	84-15-1	112	%	70-135	05.14.2020 18:04	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS48**
Lab Sample Id: 661356-018

Matrix: Soil
Date Collected: 05.12.2020 13:28

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.13.2020 22:07	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.13.2020 22:07	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.13.2020 22:07	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.13.2020 22:07	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.13.2020 22:07	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.13.2020 22:07	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.13.2020 22:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.13.2020 22:07	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.13.2020 22:07	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS49** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-019 Date Collected: 05.12.2020 13:31 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 12:02 Basis: Wet Weight
 Seq Number: 3125878

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	55.3	10.0	mg/kg	05.13.2020 15:27		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.14.2020 18:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.14.2020 18:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.14.2020 18:25	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.14.2020 18:25	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.14.2020 18:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.14.2020 18:25	
o-Terphenyl	84-15-1	113	%	70-135	05.14.2020 18:25	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS49**
Lab Sample Id: 661356-019

Matrix: Soil
Date Collected: 05.12.2020 13:31

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 11:21

Basis: Wet Weight

Seq Number: 3125869

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.13.2020 22:28	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.13.2020 22:28	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.13.2020 22:28	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.13.2020 22:28	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.13.2020 22:28	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.13.2020 22:28	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.13.2020 22:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.13.2020 22:28		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.13.2020 22:28		



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS50** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-020 Date Collected: 05.12.2020 14:04 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 16:00 Basis: Wet Weight
 Seq Number: 3125881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	123	10.0	mg/kg	05.13.2020 16:02		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.14.2020 18:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.14.2020 18:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.14.2020 18:46	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.14.2020 18:46	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.14.2020 18:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	05.14.2020 18:46	
o-Terphenyl	84-15-1	113	%	70-135	05.14.2020 18:46	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS50**
Lab Sample Id: 661356-020

Matrix: Soil
Date Collected: 05.12.2020 14:04

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 17:06

Basis: Wet Weight

Seq Number: 3125871

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.13.2020 19:01	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.13.2020 19:01	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.13.2020 19:01	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.13.2020 19:01	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.13.2020 19:01	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.13.2020 19:01	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.13.2020 19:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.13.2020 19:01		
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.13.2020 19:01		



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Christera 32 CTB

Sample Id: **FS51** Matrix: **Soil** Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-021 Date Collected: 05.12.2020 14:09 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 05.13.2020 16:00 Basis: **Wet Weight**
 Seq Number: 3125881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	290	9.98	mg/kg	05.13.2020 16:20		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 05.14.2020 12:00 Basis: **Wet Weight**
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.14.2020 19:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.14.2020 19:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.14.2020 19:27	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.14.2020 19:27	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.14.2020 19:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	05.14.2020 19:27	
o-Terphenyl	84-15-1	115	%	70-135	05.14.2020 19:27	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS51
Lab Sample Id: 661356-021

Matrix: Soil
Date Collected: 05.12.2020 14:09

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 17:06

Basis: Wet Weight

Seq Number: 3125871

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.14.2020 00:08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.14.2020 00:08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.14.2020 00:08	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.14.2020 00:08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.14.2020 00:08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.14.2020 00:08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.14.2020 00:08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	05.14.2020 00:08		
4-Bromofluorobenzene	460-00-4	101	%	70-130	05.14.2020 00:08		



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS52 Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-022 Date Collected: 05.12.2020 14:13 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 16:00 Basis: Wet Weight
 Seq Number: 3125881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	336	9.98	mg/kg	05.13.2020 16:26		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.14.2020 19:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.14.2020 19:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.14.2020 19:47	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.14.2020 19:47	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.14.2020 19:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	05.14.2020 19:47	
o-Terphenyl	84-15-1	114	%	70-135	05.14.2020 19:47	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS52
Lab Sample Id: 661356-022

Matrix: Soil
Date Collected: 05.12.2020 14:13

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 17:06

Basis: Wet Weight

Seq Number: 3125871

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.14.2020 00:28	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.14.2020 00:28	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.14.2020 00:28	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.14.2020 00:28	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.14.2020 00:28	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.14.2020 00:28	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.14.2020 00:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.14.2020 00:28		
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.14.2020 00:28		



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Christera 32 CTB

Sample Id: FS53 Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-023 Date Collected: 05.12.2020 14:16 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 16:00 Basis: Wet Weight
 Seq Number: 3125881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	169	9.94	mg/kg	05.13.2020 16:32		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.14.2020 20:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.14.2020 20:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.14.2020 20:08	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.14.2020 20:08	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.14.2020 20:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.14.2020 20:08	
o-Terphenyl	84-15-1	112	%	70-135	05.14.2020 20:08	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS53
Lab Sample Id: 661356-023

Matrix: Soil
Date Collected: 05.12.2020 14:16

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 17:06

Basis: Wet Weight

Seq Number: 3125871

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.13.2020 20:44	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.13.2020 20:44	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.13.2020 20:44	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.13.2020 20:44	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.13.2020 20:44	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.13.2020 20:44	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.13.2020 20:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	05.13.2020 20:44	
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.13.2020 20:44	



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Christera 32 CTB

Sample Id: **FS30** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-024 Date Collected: 05.12.2020 13:07 Sample Depth: 3.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 16:00 Basis: Wet Weight
 Seq Number: 3125881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	275	10.1	mg/kg	05.13.2020 16:37		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.14.2020 20:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.14.2020 20:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.14.2020 20:28	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.14.2020 20:28	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.14.2020 20:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	05.14.2020 20:28	
o-Terphenyl	84-15-1	115	%	70-135	05.14.2020 20:28	



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS30**
Lab Sample Id: 661356-024

Matrix: Soil
Date Collected: 05.12.2020 13:07

Date Received: 05.13.2020 08:55
Sample Depth: 3.5 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3125871

Prep Method: SW5035A

% Moisture:

Date Prep: 05.13.2020 17:06

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.13.2020 21:04	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.13.2020 21:04	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.13.2020 21:04	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.13.2020 21:04	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.13.2020 21:04	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.13.2020 21:04	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.13.2020 21:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	05.13.2020 21:04	
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.13.2020 21:04	



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS40** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-025 Date Collected: 05.12.2020 14:44 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 16:00 Basis: Wet Weight
 Seq Number: 3125881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	67.1	10.0	mg/kg	05.13.2020 16:43		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.14.2020 20:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.14.2020 20:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.14.2020 20:49	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.14.2020 20:49	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.14.2020 20:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	05.14.2020 20:49	
o-Terphenyl	84-15-1	115	%	70-135	05.14.2020 20:49	



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS40**
Lab Sample Id: 661356-025

Matrix: Soil
Date Collected: 05.12.2020 14:44

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 17:06

Basis: Wet Weight

Seq Number: 3125871

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.13.2020 21:24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.13.2020 21:24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.13.2020 21:24	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.13.2020 21:24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.13.2020 21:24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.13.2020 21:24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.13.2020 21:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.13.2020 21:24	
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.13.2020 21:24	



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS41** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-026 Date Collected: 05.12.2020 14:47 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 16:00 Basis: Wet Weight
 Seq Number: 3125881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	170	9.92	mg/kg	05.13.2020 17:01		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.14.2020 21:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.14.2020 21:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.14.2020 21:10	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.14.2020 21:10	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.14.2020 21:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.14.2020 21:10	
o-Terphenyl	84-15-1	114	%	70-135	05.14.2020 21:10	



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS41**
Lab Sample Id: 661356-026

Matrix: Soil
Date Collected: 05.12.2020 14:47

Date Received: 05.13.2020 08:55
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 17:06

Basis: Wet Weight

Seq Number: 3125871

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.13.2020 21:45	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.13.2020 21:45	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.13.2020 21:45	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.13.2020 21:45	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.13.2020 21:45	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.13.2020 21:45	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.13.2020 21:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	05.13.2020 21:45	
1,4-Difluorobenzene	540-36-3	105	%	70-130	05.13.2020 21:45	



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW01** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-027 Date Collected: 05.12.2020 15:12 Sample Depth: 0 - 2.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 16:00 Basis: Wet Weight
 Seq Number: 3125881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	83.9	9.98	mg/kg	05.13.2020 17:07		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.14.2020 21:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.14.2020 21:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.14.2020 21:31	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.14.2020 21:31	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.14.2020 21:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.14.2020 21:31	
o-Terphenyl	84-15-1	114	%	70-135	05.14.2020 21:31	



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW01**
Lab Sample Id: 661356-027

Matrix: Soil
Date Collected: 05.12.2020 15:12

Date Received: 05.13.2020 08:55
Sample Depth: 0 - 2.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 17:06

Basis: Wet Weight

Seq Number: 3125871

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.13.2020 22:05	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.13.2020 22:05	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.13.2020 22:05	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.13.2020 22:05	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.13.2020 22:05	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.13.2020 22:05	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.13.2020 22:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.13.2020 22:05	
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.13.2020 22:05	



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW04** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-028 Date Collected: 05.12.2020 15:15 Sample Depth: 0 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 16:00 Basis: Wet Weight
 Seq Number: 3125881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	87.4	10.0	mg/kg	05.13.2020 17:13		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.14.2020 21:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.14.2020 21:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.14.2020 21:52	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.14.2020 21:52	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.14.2020 21:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.14.2020 21:52	
o-Terphenyl	84-15-1	113	%	70-135	05.14.2020 21:52	



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW04**
Lab Sample Id: 661356-028

Matrix: Soil
Date Collected: 05.12.2020 15:15

Date Received: 05.13.2020 08:55
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 17:06

Basis: Wet Weight

Seq Number: 3125871

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.13.2020 23:07	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.13.2020 23:07	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.13.2020 23:07	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.13.2020 23:07	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.13.2020 23:07	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.13.2020 23:07	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.13.2020 23:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.13.2020 23:07		
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.13.2020 23:07		



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW05** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-029 Date Collected: 05.12.2020 15:20 Sample Depth: 0 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 16:00 Basis: Wet Weight
 Seq Number: 3125881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	57.4	10.0	mg/kg	05.13.2020 17:19		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.14.2020 22:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.14.2020 22:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.14.2020 22:13	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.14.2020 22:13	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.14.2020 22:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.14.2020 22:13	
o-Terphenyl	84-15-1	113	%	70-135	05.14.2020 22:13	



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW05**
Lab Sample Id: 661356-029

Matrix: Soil
Date Collected: 05.12.2020 15:20

Date Received: 05.13.2020 08:55
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.13.2020 17:06

Basis: Wet Weight

Seq Number: 3125871

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.13.2020 23:27	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.13.2020 23:27	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.13.2020 23:27	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.13.2020 23:27	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.13.2020 23:27	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.13.2020 23:27	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.13.2020 23:27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.13.2020 23:27		
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.13.2020 23:27		



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW06** Matrix: Soil Date Received: 05.13.2020 08:55
 Lab Sample Id: 661356-030 Date Collected: 05.12.2020 15:21 Sample Depth: 0 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.13.2020 16:00 Basis: Wet Weight
 Seq Number: 3125881

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	28.6	10.0	mg/kg	05.13.2020 17:24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3125999

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.14.2020 22:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.14.2020 22:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.14.2020 22:34	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.14.2020 22:34	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.14.2020 22:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	05.14.2020 22:34	
o-Terphenyl	84-15-1	112	%	70-135	05.14.2020 22:34	



Certificate of Analytical Results 661356

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW06**
Lab Sample Id: 661356-030

Matrix: Soil
Date Collected: 05.12.2020 15:21

Date Received: 05.13.2020 08:55
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3125871

Prep Method: SW5035A

% Moisture:

Date Prep: 05.13.2020 17:06

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.13.2020 23:48	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.13.2020 23:48	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.13.2020 23:48	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.13.2020 23:48	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.13.2020 23:48	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.13.2020 23:48	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.13.2020 23:48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	05.13.2020 23:48		
1,4-Difluorobenzene	540-36-3	109	%	70-130	05.13.2020 23:48		



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.
Christera 32 CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3125878

MB Sample Id: 7703240-1-BLK

Matrix: Solid

LCS Sample Id: 7703240-1-BKS

Prep Method: E300P

Date Prep: 05.13.2020

LCSD Sample Id: 7703240-1-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	251	100	250	100	90-110	0	20	mg/kg	05.13.2020 12:37	

Analytical Method: Chloride by EPA 300

Seq Number: 3125881

MB Sample Id: 7703271-1-BLK

Matrix: Solid

LCS Sample Id: 7703271-1-BKS

Prep Method: E300P

Date Prep: 05.13.2020

LCSD Sample Id: 7703271-1-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	251	100	250	100	90-110	0	20	mg/kg	05.13.2020 15:51	

Analytical Method: Chloride by EPA 300

Seq Number: 3125878

Parent Sample Id: 661355-001

Matrix: Soil

MS Sample Id: 661355-001 S

Prep Method: E300P

Date Prep: 05.13.2020

MSD Sample Id: 661355-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	101	202	276	87	278	88	90-110	1	20	mg/kg	05.13.2020 12:54	X

Analytical Method: Chloride by EPA 300

Seq Number: 3125878

Parent Sample Id: 661356-010

Matrix: Soil

MS Sample Id: 661356-010 S

Prep Method: E300P

Date Prep: 05.13.2020

MSD Sample Id: 661356-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	197	200	380	92	380	92	90-110	0	20	mg/kg	05.13.2020 14:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3125881

Parent Sample Id: 661356-020

Matrix: Soil

MS Sample Id: 661356-020 S

Prep Method: E300P

Date Prep: 05.13.2020

MSD Sample Id: 661356-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	123	200	312	95	312	94	90-110	0	20	mg/kg	05.13.2020 16:08	

Analytical Method: Chloride by EPA 300

Seq Number: 3125881

Parent Sample Id: 661356-030

Matrix: Soil

MS Sample Id: 661356-030 S

Prep Method: E300P

Date Prep: 05.13.2020

MSD Sample Id: 661356-030 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	28.6	200	215	93	216	94	90-110	0	20	mg/kg	05.13.2020 17:30	

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.

Christera 32 CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125999

MB Sample Id: 7703333-1-BLK

Matrix: Solid

LCS Sample Id: 7703333-1-BKS

Prep Method: SW8015P

Date Prep: 05.14.2020

LCSD Sample Id: 7703333-1-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	918	92	908	91	70-135	1	35	mg/kg	05.14.2020 14:16	
Diesel Range Organics (DRO)	<50.0	1000	1080	108	1070	107	70-135	1	35	mg/kg	05.14.2020 14:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		118		116		70-135	%	05.14.2020 14:16
o-Terphenyl	111		120		120		70-135	%	05.14.2020 14:16

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126032

MB Sample Id: 7703325-1-BLK

Matrix: Solid

LCS Sample Id: 7703325-1-BKS

Prep Method: SW8015P

Date Prep: 05.14.2020

LCSD Sample Id: 7703325-1-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	990	99	1030	103	70-135	4	35	mg/kg	05.14.2020 14:16	
Diesel Range Organics (DRO)	<50.0	1000	1080	108	1130	113	70-135	5	35	mg/kg	05.14.2020 14:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		116		122		70-135	%	05.14.2020 14:16
o-Terphenyl	114		118		122		70-135	%	05.14.2020 14:16

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125999

Matrix: Solid

MB Sample Id: 7703333-1-BLK

Prep Method: SW8015P

Date Prep: 05.14.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.14.2020 13:55	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126032

Matrix: Solid

MB Sample Id: 7703325-1-BLK

Prep Method: SW8015P

Date Prep: 05.14.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.14.2020 13:55	

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.
Christera 32 CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3125999

Parent Sample Id: 661356-011

Matrix: Soil

MS Sample Id: 661356-011 S

Prep Method: SW8015P

Date Prep: 05.14.2020

MSD Sample Id: 661356-011 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)	<50.3	1010	915	91	933	94	70-135	2	35	mg/kg	05.14.2020 15:18	
Diesel Range Organics (DRO)	<50.3	1010	1070	106	1090	109	70-135	2	35	mg/kg	05.14.2020 15:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		119		70-135	%	05.14.2020 15:18
o-Terphenyl	121		122		70-135	%	05.14.2020 15:18

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126032

Parent Sample Id: 661339-003

Matrix: Soil

MS Sample Id: 661339-003 S

Prep Method: SW8015P

Date Prep: 05.14.2020

MSD Sample Id: 661339-003 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	966	97	959	96	70-135	1	35	mg/kg	05.14.2020 15:18	
Diesel Range Organics (DRO)	<50.2	1000	1090	109	1040	104	70-135	5	35	mg/kg	05.14.2020 15:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		93		70-135	%	05.14.2020 15:18
o-Terphenyl	120		77		70-135	%	05.14.2020 15:18

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125869

MB Sample Id: 7703236-1-BLK

Matrix: Solid

LCS Sample Id: 7703236-1-BKS

Prep Method: SW5035A

Date Prep: 05.13.2020

LCSD Sample Id: 7703236-1-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	0.120	120	0.117	117	70-130	3	35	mg/kg	05.13.2020 12:50	
Toluene	<0.00200	0.100	0.110	110	0.0931	93	70-130	17	35	mg/kg	05.13.2020 12:50	
Ethylbenzene	<0.00200	0.100	0.105	105	0.108	108	71-129	3	35	mg/kg	05.13.2020 12:50	
m,p-Xylenes	<0.00400	0.200	0.203	102	0.194	97	70-135	5	35	mg/kg	05.13.2020 12:50	
o-Xylene	<0.00200	0.100	0.103	103	0.100	100	71-133	3	35	mg/kg	05.13.2020 12:50	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		107		108		70-130	%	05.13.2020 12:50
4-Bromofluorobenzene	104		100		101		70-130	%	05.13.2020 12:50

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

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

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

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



LT Environmental, Inc.
Christera 32 CTB

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125871

Matrix: Solid

Prep Method: SW5035A

Date Prep: 05.13.2020

MB Sample Id: 7703274-1-BLK

LCS Sample Id: 7703274-1-BKS

LCSD Sample Id: 7703274-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.108	108	0.106	106	70-130	2	35	mg/kg	05.13.2020 17:19	
Toluene	<0.00200	0.100	0.104	104	0.104	104	70-130	0	35	mg/kg	05.13.2020 17:19	
Ethylbenzene	<0.00200	0.100	0.0991	99	0.0982	98	71-129	1	35	mg/kg	05.13.2020 17:19	
m,p-Xylenes	<0.00400	0.200	0.205	103	0.203	102	70-135	1	35	mg/kg	05.13.2020 17:19	
o-Xylene	<0.00200	0.100	0.104	104	0.102	102	71-133	2	35	mg/kg	05.13.2020 17:19	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		104		103		70-130	%	05.13.2020 17:19
4-Bromofluorobenzene	97		92		94		70-130	%	05.13.2020 17:19

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125869

Matrix: Soil

Prep Method: SW5035A

Date Prep: 05.13.2020

Parent Sample Id: 661355-001

MS Sample Id: 661355-001 S

MSD Sample Id: 661355-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.120	120	0.122	122	70-130	2	35	mg/kg	05.13.2020 13:33	
Toluene	<0.00200	0.0998	0.110	110	0.113	113	70-130	3	35	mg/kg	05.13.2020 13:33	
Ethylbenzene	<0.00200	0.0998	0.103	103	0.107	107	71-129	4	35	mg/kg	05.13.2020 13:33	
m,p-Xylenes	<0.00399	0.200	0.200	100	0.207	104	70-135	3	35	mg/kg	05.13.2020 13:33	
o-Xylene	<0.00200	0.0998	0.102	102	0.105	105	71-133	3	35	mg/kg	05.13.2020 13:33	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		106		70-130	%	05.13.2020 13:33
4-Bromofluorobenzene	102		102		70-130	%	05.13.2020 13:33

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125871

Matrix: Soil

Prep Method: SW5035A

Date Prep: 05.13.2020

Parent Sample Id: 661356-020

MS Sample Id: 661356-020 S

MSD Sample Id: 661356-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.108	108	0.104	104	70-130	4	35	mg/kg	05.13.2020 18:00	
Toluene	<0.00200	0.0998	0.103	103	0.0998	100	70-130	3	35	mg/kg	05.13.2020 18:00	
Ethylbenzene	<0.00200	0.0998	0.0962	96	0.0920	92	71-129	4	35	mg/kg	05.13.2020 18:00	
m,p-Xylenes	<0.00399	0.200	0.198	99	0.188	94	70-135	5	35	mg/kg	05.13.2020 18:00	
o-Xylene	<0.00200	0.0998	0.100	100	0.0950	95	71-133	5	35	mg/kg	05.13.2020 18:00	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		109		70-130	%	05.13.2020 18:00
4-Bromofluorobenzene	95		95		70-130	%	05.13.2020 18:00

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



Chain of Custody

Work Order No:

1631 350

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Corsado, NM (432) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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

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

ANALYSIS REQUEST

Project Name:	Christiana 32 CTB	Turn Around	☒
Project Number:	012920061	Routine	☒
Project Location:	Leg county	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
PO #:	3/28/20 spill date	Quote #:	

Pres. Code	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	MeOH: Me	None: NO	HNO3: HN	H2SO4: H2	HCL: HL	NaOH: Na	Zn Acetate+ NaOH: Zn

Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	3.4	Thermometer ID	
Received Intact:	(Yes) No	Correction Factor:	-0.2
Cooler Custody Seals:	Yes (No) N/A	Total Containers:	30
Sample Custody Seals:	Yes (No) N/A		

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	MeOH: Me	None: NO	HNO3: HN	H2SO4: H2	HCL: HL	NaOH: Na	Zn Acetate+ NaOH: Zn	TAT starts the day received by the lab, if received by 4:00pm	Sample Comments
FS20		S	6/12/20	0841	3'	1	X	X	X									
FS32				0957	3'													
FS33				1000	3'													
FS34				1004	3'													
FS35				1007	3'													
FS36				1034	3'													
FS37				1037	3'													
FS38				1040	3'													
FS31				1123	3'													
FS10				1219	3'													

Total 200.7 / 6010 200.8 / 6020:

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

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

1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		5/13/20 055			



Chain of Custody

Work Order No: 441556

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Corsbad, NM (432) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 889-6701

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Little
Company Name:	IT Environmental, Inc. Permian Office	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Corsbad, NM 88220
Phone:	(432) 230-3849	Email:	fsmith@xtenv.com, dmoir@itenv.com

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

Project Name:	Chastara 32 CTB	Turn Around	
Project Number:	012920061	Routine	☒
Project Location:	Lea county	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
PO #: 3/28/20 spill date		Quote #:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):				Thermometer ID		
Received Intact:	Yes	No		Correction Factor:		
Cooler Custody Seals:	Yes	No		Total Containers:		
Sample Custody Seals:	Yes	No				

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes	Sample Comments
	ES39	S	5/12/20	1223	3'	1	X TPH (EPA 8015)	MeOH: Me	
	ES42			1234	3'		X BTEX (EPA 0-8021)	None: NO	
	ES43			1237	3'		X Chloride (EPA 300.0)	HNO3: HN	
	ES44			1315	3'			H2SO4: H2	
	ES45			1318	3'			HCL: HL	
	ES46			1321	3'			NaOH: Na	
	ES47			1324	3'			Zn Acetate+ NaOH: Zn	
	ES48			1328	3'			TAT starts the day received by the lab, if received by 4:00pm	
	ES49			1331	3'				
	ES50			1404	3'				

Total 200.7 / 6010 200.8 / 6020:

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

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

1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$73.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	5/13/20 855			



Chain of Custody

Work Order No: 1000356

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334

Midland, TX (432) 704-5440 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Crashback, NM (432) 704-5440
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	Don Mair	Bill to: (if different)	Kyle Littlell
Company Name:	LI Environmental, Inc. Permian Office	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Crashback, NM 88220
Phone:	(432) 236-3849	Email:	fsmith@xenencolab.com, clmair@lienv.com

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

Project Name:	Chisler 32 CTB	Turn Around	
Project Number:	012920061	Routine	☒
Project Location:	Lea County	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
PO #:	3/26/20 spill date	Quote #:	

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

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	Preservative Codes	Sample Comments
ESB1		S	5/12/20	1409	3'	1	X	X	X	MeOH: Me None: NO HNO3: HN H2SO4: H2 HCL: HL NaOH: Na Zn Acetate+ NaOH: Zn	TAT starts the day received by the lab, if received by 4:00pm
ESB2				1413	3'						
ESB3				1416	3'						
ESB30				1307	3.5'						
ES40				1444	3'						
FS41				1447	3'						
SW01				1512	0-2.5'						
SW04				1515	0-3'						
SW05				1520	0-3'						
SW06				1521	0-3'						

Total 200.7 / 6010 200.8 / 6020:

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

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

1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenenco 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 Xenenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenenco, 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
Fatima	FSM	5/13/20 855			
		2			
		4			
		6			

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 05.13.2020 08.55.00 AM

Work Order #: 661356

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)?	3.4
#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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 05.13.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.14.2020



Analytical Report 661755

for

LT Environmental, Inc.

Project Manager: Dan Moir

Christera 32 CTB

012920061

05.19.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
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)



05.19.2020

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

Reference: XENCO Report No(s): **661755**
Christera 32 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) 661755. 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. 661755 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 Manager

A Small Business and Minority Company

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



Sample Cross Reference 661755

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS 54	S	05.14.2020 11:18	3 ft	661755-001
FS 55	S	05.14.2020 11:23	3 ft	661755-002
FS 56	S	05.14.2020 11:30	3 ft	661755-003
FS 57	S	05.14.2020 11:34	3 ft	661755-004
FS 58	S	05.14.2020 12:08	3 ft	661755-005
FS 59	S	05.14.2020 12:11	3 ft	661755-006
FS 60	S	05.14.2020 12:17	3 ft	661755-007
FS 61	S	05.14.2020 12:24	3 ft	661755-008
SW03	S	05.14.2020 12:48	0 - 3 ft	661755-009
SW07	S	05.14.2020 12:50	0 - 3 ft	661755-010
SW09	S	05.14.2020 14:23	0 - 2 ft	661755-011
SW08	S	05.14.2020 14:45	0 - 2 ft	661755-012
FS 62	S	05.14.2020 14:57	2 ft	661755-013
FS 63	S	05.14.2020 15:01	2 ft	661755-014
FS 64	S	05.14.2020 15:10	2 ft	661755-015
SW 11	S	05.14.2020 15:35	0 - 2 ft	661755-016
SW 12	S	05.14.2020 15:37	0 - 2 ft	661755-017



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *Christera 32 CTB*

Project ID: 012920061
Work Order Number(s): 661755

Report Date: 05.19.2020
Date Received: 05.15.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 661755

LT Environmental, Inc., Arvada, CO

Project Name: Christera 32 CTB

Project Id: 012920061

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri 05.15.2020 09:27

Report Date: 05.19.2020 10:03

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661755-001	661755-002	661755-003	661755-004	661755-005	661755-006
	<i>Field Id:</i>	FS 54	FS 55	FS 56	FS 57	FS 58	FS 59
	<i>Depth:</i>	3- ft	3- ft	3- ft	3- ft	3- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.14.2020 11:18	05.14.2020 11:23	05.14.2020 11:30	05.14.2020 11:34	05.14.2020 12:08	05.14.2020 12:11
BTEX by EPA 8021B	<i>Extracted:</i>	05.15.2020 11:07	05.15.2020 11:07	05.15.2020 11:07	05.15.2020 11:07	05.15.2020 11:07	05.15.2020 11:07
	<i>Analyzed:</i>	05.15.2020 17:09	05.15.2020 17:31	05.15.2020 17:52	05.15.2020 18:56	05.15.2020 19:18	05.15.2020 19:39
	<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	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
Toluene		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
m,p-Xylenes		<0.00399 0.00399	<0.00403 0.00403	<0.00403 0.00403	<0.00404 0.00404	<0.00401 0.00401	<0.00402 0.00402
o-Xylene		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
Total BTEX		<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	05.15.2020 15:12	05.15.2020 15:12	05.15.2020 15:12	05.15.2020 17:15	05.15.2020 17:15	05.15.2020 17:15
	<i>Analyzed:</i>	05.15.2020 18:41	05.15.2020 18:46	05.15.2020 18:52	05.15.2020 19:28	05.15.2020 19:45	05.15.2020 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		455 10.0	16.9 9.96	20.8 9.84	72.7 9.96	13.9 9.96	17.0 9.94
TPH by SW8015 Mod	<i>Extracted:</i>	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30
	<i>Analyzed:</i>	05.16.2020 08:27	05.16.2020 08:48	05.16.2020 09:09	05.16.2020 09:30	05.16.2020 09:51	05.16.2020 10:13
	<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)		<50.0 50.0	<50.0 50.0	<50.3 50.3	<50.1 50.1	<49.8 49.8	<50.2 50.2
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<50.3 50.3	<50.1 50.1	<49.8 49.8	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<50.3 50.3	<50.1 50.1	<49.8 49.8	<50.2 50.2
Total GRO-DRO		<50.0 50.0	<50.0 50.0	<50.3 50.3	<50.1 50.1	<49.8 49.8	<50.2 50.2
Total TPH		<50.0 50.0	<50.0 50.0	<50.3 50.3	<50.1 50.1	<49.8 49.8	<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 Manager



Certificate of Analysis Summary 661755

LT Environmental, Inc., Arvada, CO

Project Name: Christera 32 CTB

Project Id: 012920061

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri 05.15.2020 09:27

Report Date: 05.19.2020 10:03

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661755-007	661755-008	661755-009	661755-010	661755-011	661755-012
	<i>Field Id:</i>	FS 60	FS 61	SW03	SW07	SW09	SW08
	<i>Depth:</i>	3- ft	3- ft	0-3 ft	0-3 ft	0-2 ft	0-2 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.14.2020 12:17	05.14.2020 12:24	05.14.2020 12:48	05.14.2020 12:50	05.14.2020 14:23	05.14.2020 14:45
BTEX by EPA 8021B	<i>Extracted:</i>	05.15.2020 11:07	05.15.2020 11:07	05.15.2020 11:07	05.15.2020 11:07	05.15.2020 11:07	05.15.2020 11:07
	<i>Analyzed:</i>	05.15.2020 20:00	05.15.2020 20:22	05.15.2020 20:43	05.15.2020 21:05	05.15.2020 21:26	05.15.2020 21:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00404 0.00404	<0.00404 0.00404	<0.00401 0.00401	<0.00399 0.00399	<0.00402 0.00402	<0.00401 0.00401
o-Xylene		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	05.15.2020 17:15	05.15.2020 17:15	05.15.2020 17:15	05.15.2020 17:15	05.15.2020 17:15	05.15.2020 17:15
	<i>Analyzed:</i>	05.15.2020 19:57	05.15.2020 20:03	05.15.2020 20:20	05.15.2020 20:26	05.15.2020 20:32	05.15.2020 20:38
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		51.5 9.96	231 10.1	43.3 10.1	196 9.94	386 9.96	46.5 9.92
TPH by SW8015 Mod	<i>Extracted:</i>	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30
	<i>Analyzed:</i>	05.16.2020 10:55	05.16.2020 11:16	05.16.2020 11:36	05.16.2020 11:57	05.16.2020 12:18	05.16.2020 12:39
	<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)		<50.2 50.2	<50.2 50.2	<50.0 50.0	<50.0 50.0	<50.1 50.1	<50.1 50.1
Diesel Range Organics (DRO)		<50.2 50.2	<50.2 50.2	<50.0 50.0	<50.0 50.0	<50.1 50.1	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.2 50.2	<50.0 50.0	<50.0 50.0	<50.1 50.1	<50.1 50.1
Total GRO-DRO		<50.2 50.2	<50.2 50.2	<50.0 50.0	<50.0 50.0	<50.1 50.1	<50.1 50.1
Total TPH		<50.2 50.2	<50.2 50.2	<50.0 50.0	<50.0 50.0	<50.1 50.1	<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 Manager



Certificate of Analysis Summary 661755

LT Environmental, Inc., Arvada, CO

Project Name: Christera 32 CTB

Project Id: 012920061

Contact: Dan Moir

Project Location:

Date Received in Lab: Fri 05.15.2020 09:27

Report Date: 05.19.2020 10:03

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661755-013	661755-014	661755-015	661755-016	661755-017	
	<i>Field Id:</i>	FS 62	FS 63	FS 64	SW 11	SW 12	
	<i>Depth:</i>	2- ft	2- ft	2- ft	0-2 ft	0-2 ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	05.14.2020 14:57	05.14.2020 15:01	05.14.2020 15:10	05.14.2020 15:35	05.14.2020 15:37	
BTEX by EPA 8021B	<i>Extracted:</i>	05.15.2020 11:07	05.18.2020 12:01	05.18.2020 12:01	05.18.2020 12:01	05.18.2020 12:01	
	<i>Analyzed:</i>	05.15.2020 22:09	05.18.2020 15:48	05.18.2020 16:08	05.18.2020 16:29	05.18.2020 16:49	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	
Toluene		<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	
Ethylbenzene		<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	
m,p-Xylenes		<0.00400 0.00400	<0.00396 0.00396	<0.00403 0.00403	<0.00404 0.00404	<0.00403 0.00403	
o-Xylene		<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	
Total Xylenes		<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	
Total BTEX		<0.00200 0.00200	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00202 0.00202	
Chloride by EPA 300	<i>Extracted:</i>	05.15.2020 17:15	05.15.2020 17:15	05.15.2020 17:15	05.15.2020 17:15	05.15.2020 17:15	
	<i>Analyzed:</i>	05.15.2020 20:44	05.15.2020 20:50	05.15.2020 21:07	05.15.2020 21:13	05.15.2020 21:31	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		113 9.96	87.3 9.94	37.6 9.92	43.8 9.96	44.4 9.94	
TPH by SW8015 Mod	<i>Extracted:</i>	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:30	05.15.2020 17:45	
	<i>Analyzed:</i>	05.16.2020 13:00	05.16.2020 13:21	05.16.2020 13:41	05.16.2020 14:02	05.16.2020 06:21	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.1 50.1	<50.2 50.2	
Diesel Range Organics (DRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.1 50.1	<50.2 50.2	
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.1 50.1	<50.2 50.2	
Total GRO-DRO		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.1 50.1	<50.2 50.2	
Total TPH		<50.2 50.2	<50.2 50.2	<50.2 50.2	<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 Manager



Certificate of Analytical Results 661755

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS 54
Lab Sample Id: 661755-001

Matrix: Soil
Date Collected: 05.14.2020 11:18

Date Received: 05.15.2020 09:27
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126176

Date Prep: 05.15.2020 15:12

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	455	10.0	mg/kg	05.15.2020 18:41		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126206

Date Prep: 05.15.2020 17:30

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	05.16.2020 08:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.16.2020 08:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.16.2020 08:27	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.16.2020 08:27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.16.2020 08:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.16.2020 08:27	
o-Terphenyl	84-15-1	116	%	70-135	05.16.2020 08:27	



Certificate of Analytical Results 661755

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS 54
Lab Sample Id: 661755-001

Matrix: Soil
Date Collected: 05.14.2020 11:18

Date Received: 05.15.2020 09:27
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126174

Date Prep: 05.15.2020 11:07

Prep Method: SW5035A

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.15.2020 17:09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.15.2020 17:09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 17:09	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.15.2020 17:09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 17:09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 17:09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.15.2020 17:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.15.2020 17:09	
4-Bromofluorobenzene	460-00-4	111	%	70-130	05.15.2020 17:09	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS 55 Matrix: Soil Date Received: 05.15.2020 09:27
 Lab Sample Id: 661755-002 Date Collected: 05.14.2020 11:23 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.15.2020 15:12 Basis: Wet Weight
 Seq Number: 3126176

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.9	9.96	mg/kg	05.15.2020 18:46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.15.2020 17:30 Basis: Wet Weight
 Seq Number: 3126206

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.16.2020 08:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.16.2020 08:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.16.2020 08:48	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.16.2020 08:48	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.16.2020 08:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.16.2020 08:48	
o-Terphenyl	84-15-1	117	%	70-135	05.16.2020 08:48	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS 55
Lab Sample Id: 661755-002

Matrix: Soil
Date Collected: 05.14.2020 11:23

Date Received: 05.15.2020 09:27
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 11:07

Basis: Wet Weight

Seq Number: 3126174

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.15.2020 17:31	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.15.2020 17:31	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.15.2020 17:31	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.15.2020 17:31	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.15.2020 17:31	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.15.2020 17:31	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.15.2020 17:31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	05.15.2020 17:31		
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.15.2020 17:31		



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS 56 Matrix: Soil Date Received: 05.15.2020 09:27
 Lab Sample Id: 661755-003 Date Collected: 05.14.2020 11:30 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.15.2020 15:12 Basis: Wet Weight
 Seq Number: 3126176

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.8	9.84	mg/kg	05.15.2020 18:52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.15.2020 17:30 Basis: Wet Weight
 Seq Number: 3126206

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	05.16.2020 09:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	05.16.2020 09:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	05.16.2020 09:09	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	05.16.2020 09:09	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	05.16.2020 09:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	05.16.2020 09:09	
o-Terphenyl	84-15-1	117	%	70-135	05.16.2020 09:09	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS 56
Lab Sample Id: 661755-003

Matrix: Soil
Date Collected: 05.14.2020 11:30

Date Received: 05.15.2020 09:27
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126174

Prep Method: SW5035A

% Moisture:

Date Prep: 05.15.2020 11:07

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.15.2020 17:52	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.15.2020 17:52	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.15.2020 17:52	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.15.2020 17:52	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.15.2020 17:52	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.15.2020 17:52	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.15.2020 17:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.15.2020 17:52	
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.15.2020 17:52	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS 57 Matrix: Soil Date Received: 05.15.2020 09:27
 Lab Sample Id: 661755-004 Date Collected: 05.14.2020 11:34 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.15.2020 17:15 Basis: Wet Weight
 Seq Number: 3126178

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	72.7	9.96	mg/kg	05.15.2020 19:28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.15.2020 17:30 Basis: Wet Weight
 Seq Number: 3126206

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.16.2020 09:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.16.2020 09:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.16.2020 09:30	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.16.2020 09:30	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.16.2020 09:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	05.16.2020 09:30	
o-Terphenyl	84-15-1	119	%	70-135	05.16.2020 09:30	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS 57
Lab Sample Id: 661755-004

Matrix: Soil
Date Collected: 05.14.2020 11:34

Date Received: 05.15.2020 09:27
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 11:07

Basis: Wet Weight

Seq Number: 3126174

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.15.2020 18:56	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.15.2020 18:56	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.15.2020 18:56	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.15.2020 18:56	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.15.2020 18:56	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.15.2020 18:56	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.15.2020 18:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.15.2020 18:56	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.15.2020 18:56	



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Christera 32 CTB

Sample Id: **FS 58** Matrix: Soil Date Received: 05.15.2020 09:27
 Lab Sample Id: 661755-005 Date Collected: 05.14.2020 12:08 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.15.2020 17:15 Basis: Wet Weight
 Seq Number: 3126178

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.9	9.96	mg/kg	05.15.2020 19:45		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.15.2020 17:30 Basis: Wet Weight
 Seq Number: 3126206

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.16.2020 09:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.16.2020 09:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.16.2020 09:51	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	05.16.2020 09:51	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.16.2020 09:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	05.16.2020 09:51	
o-Terphenyl	84-15-1	119	%	70-135	05.16.2020 09:51	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS 58**
Lab Sample Id: 661755-005

Matrix: Soil
Date Collected: 05.14.2020 12:08

Date Received: 05.15.2020 09:27
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 11:07

Basis: Wet Weight

Seq Number: 3126174

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.15.2020 19:18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.15.2020 19:18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 19:18	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.15.2020 19:18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 19:18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 19:18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.15.2020 19:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.15.2020 19:18	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.15.2020 19:18	



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Christera 32 CTB

Sample Id: **FS 59** Matrix: Soil Date Received: 05.15.2020 09:27
 Lab Sample Id: 661755-006 Date Collected: 05.14.2020 12:11 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.15.2020 17:15 Basis: Wet Weight
 Seq Number: 3126178

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.0	9.94	mg/kg	05.15.2020 19:51		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.15.2020 17:30 Basis: Wet Weight
 Seq Number: 3126206

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.16.2020 10:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.16.2020 10:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.16.2020 10:13	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.16.2020 10:13	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.16.2020 10:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	05.16.2020 10:13	
o-Terphenyl	84-15-1	121	%	70-135	05.16.2020 10:13	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS 59**
Lab Sample Id: 661755-006

Matrix: Soil
Date Collected: 05.14.2020 12:11

Date Received: 05.15.2020 09:27
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 11:07

Basis: Wet Weight

Seq Number: 3126174

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.15.2020 19:39	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.15.2020 19:39	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.15.2020 19:39	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.15.2020 19:39	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.15.2020 19:39	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.15.2020 19:39	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.15.2020 19:39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.15.2020 19:39		
1,4-Difluorobenzene	540-36-3	116	%	70-130	05.15.2020 19:39		



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Christera 32 CTB

Sample Id: **FS 60**
Lab Sample Id: 661755-007

Matrix: Soil
Date Collected: 05.14.2020 12:17

Date Received: 05.15.2020 09:27
Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126178

Date Prep: 05.15.2020 17:15

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	51.5	9.96	mg/kg	05.15.2020 19:57		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126206

Date Prep: 05.15.2020 17:30

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	05.16.2020 10:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.16.2020 10:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.16.2020 10:55	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.16.2020 10:55	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.16.2020 10:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	05.16.2020 10:55	
o-Terphenyl	84-15-1	121	%	70-135	05.16.2020 10:55	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS 60**
Lab Sample Id: 661755-007

Matrix: Soil
Date Collected: 05.14.2020 12:17

Date Received: 05.15.2020 09:27
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 11:07

Basis: Wet Weight

Seq Number: 3126174

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.15.2020 20:00	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.15.2020 20:00	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.15.2020 20:00	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.15.2020 20:00	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.15.2020 20:00	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.15.2020 20:00	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.15.2020 20:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.15.2020 20:00		
1,4-Difluorobenzene	540-36-3	118	%	70-130	05.15.2020 20:00		



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Christera 32 CTB

Sample Id: **FS 61** Matrix: Soil Date Received: 05.15.2020 09:27
 Lab Sample Id: 661755-008 Date Collected: 05.14.2020 12:24 Sample Depth: 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.15.2020 17:15 Basis: Wet Weight
 Seq Number: 3126178

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	231	10.1	mg/kg	05.15.2020 20:03		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.15.2020 17:30 Basis: Wet Weight
 Seq Number: 3126206

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.16.2020 11:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.16.2020 11:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.16.2020 11:16	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.16.2020 11:16	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.16.2020 11:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	05.16.2020 11:16	
o-Terphenyl	84-15-1	121	%	70-135	05.16.2020 11:16	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS 61**
Lab Sample Id: 661755-008

Matrix: Soil
Date Collected: 05.14.2020 12:24

Date Received: 05.15.2020 09:27
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 11:07

Basis: Wet Weight

Seq Number: 3126174

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.15.2020 20:22	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.15.2020 20:22	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.15.2020 20:22	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.15.2020 20:22	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.15.2020 20:22	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.15.2020 20:22	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.15.2020 20:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.15.2020 20:22	
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.15.2020 20:22	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW03** Matrix: Soil Date Received: 05.15.2020 09:27
 Lab Sample Id: 661755-009 Date Collected: 05.14.2020 12:48 Sample Depth: 0 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.15.2020 17:15 Basis: Wet Weight
 Seq Number: 3126178

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	43.3	10.1	mg/kg	05.15.2020 20:20		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.15.2020 17:30 Basis: Wet Weight
 Seq Number: 3126206

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.16.2020 11:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.16.2020 11:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.16.2020 11:36	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.16.2020 11:36	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.16.2020 11:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.16.2020 11:36	
o-Terphenyl	84-15-1	116	%	70-135	05.16.2020 11:36	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW03**
Lab Sample Id: 661755-009

Matrix: Soil
Date Collected: 05.14.2020 12:48

Date Received: 05.15.2020 09:27
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126174

Prep Method: SW5035A

% Moisture:

Date Prep: 05.15.2020 11:07

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.15.2020 20:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.15.2020 20:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 20:43	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.15.2020 20:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 20:43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 20:43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.15.2020 20:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.15.2020 20:43	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.15.2020 20:43	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW07** Matrix: Soil Date Received: 05.15.2020 09:27
 Lab Sample Id: 661755-010 Date Collected: 05.14.2020 12:50 Sample Depth: 0 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.15.2020 17:15 Basis: Wet Weight
 Seq Number: 3126178

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	196	9.94	mg/kg	05.15.2020 20:26		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.15.2020 17:30 Basis: Wet Weight
 Seq Number: 3126206

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.16.2020 11:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.16.2020 11:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.16.2020 11:57	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.16.2020 11:57	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.16.2020 11:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	05.16.2020 11:57	
o-Terphenyl	84-15-1	118	%	70-135	05.16.2020 11:57	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW07**
Lab Sample Id: 661755-010

Matrix: Soil
Date Collected: 05.14.2020 12:50

Date Received: 05.15.2020 09:27
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126174

Prep Method: SW5035A

% Moisture:

Date Prep: 05.15.2020 11:07

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.15.2020 21:05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.15.2020 21:05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 21:05	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.15.2020 21:05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 21:05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 21:05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.15.2020 21:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.15.2020 21:05	
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.15.2020 21:05	



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Christera 32 CTB

Sample Id: **SW09** Matrix: Soil Date Received: 05.15.2020 09:27
 Lab Sample Id: 661755-011 Date Collected: 05.14.2020 14:23 Sample Depth: 0 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.15.2020 17:15 Basis: Wet Weight
 Seq Number: 3126178

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	386	9.96	mg/kg	05.15.2020 20:32		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.15.2020 17:30 Basis: Wet Weight
 Seq Number: 3126206

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.16.2020 12:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.16.2020 12:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.16.2020 12:18	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.16.2020 12:18	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.16.2020 12:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	05.16.2020 12:18	
o-Terphenyl	84-15-1	118	%	70-135	05.16.2020 12:18	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW09**
Lab Sample Id: 661755-011

Matrix: Soil
Date Collected: 05.14.2020 14:23

Date Received: 05.15.2020 09:27
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.15.2020 11:07

Basis: Wet Weight

Seq Number: 3126174

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.15.2020 21:26	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.15.2020 21:26	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.15.2020 21:26	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.15.2020 21:26	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.15.2020 21:26	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.15.2020 21:26	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.15.2020 21:26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.15.2020 21:26		
1,4-Difluorobenzene	540-36-3	116	%	70-130	05.15.2020 21:26		



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Christera 32 CTB

Sample Id: **SW08** Matrix: Soil Date Received: 05.15.2020 09:27
 Lab Sample Id: 661755-012 Date Collected: 05.14.2020 14:45 Sample Depth: 0 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.15.2020 17:15 Basis: Wet Weight
 Seq Number: 3126178

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	46.5	9.92	mg/kg	05.15.2020 20:38		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.15.2020 17:30 Basis: Wet Weight
 Seq Number: 3126206

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.16.2020 12:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.16.2020 12:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.16.2020 12:39	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.16.2020 12:39	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.16.2020 12:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.16.2020 12:39	
o-Terphenyl	84-15-1	110	%	70-135	05.16.2020 12:39	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW08**
Lab Sample Id: 661755-012

Matrix: Soil
Date Collected: 05.14.2020 14:45

Date Received: 05.15.2020 09:27
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126174

Prep Method: SW5035A

% Moisture:

Date Prep: 05.15.2020 11:07

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.15.2020 21:47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.15.2020 21:47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 21:47	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.15.2020 21:47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 21:47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 21:47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.15.2020 21:47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.15.2020 21:47		
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.15.2020 21:47		



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Christera 32 CTB

Sample Id: FS 62 Matrix: Soil Date Received: 05.15.2020 09:27
 Lab Sample Id: 661755-013 Date Collected: 05.14.2020 14:57 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.15.2020 17:15 Basis: Wet Weight
 Seq Number: 3126178

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	113	9.96	mg/kg	05.15.2020 20:44		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.15.2020 17:30 Basis: Wet Weight
 Seq Number: 3126206

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.16.2020 13:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.16.2020 13:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.16.2020 13:00	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.16.2020 13:00	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.16.2020 13:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	05.16.2020 13:00	
o-Terphenyl	84-15-1	116	%	70-135	05.16.2020 13:00	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS 62
Lab Sample Id: 661755-013

Matrix: Soil
Date Collected: 05.14.2020 14:57

Date Received: 05.15.2020 09:27
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3126174

Prep Method: SW5035A

% Moisture:

Date Prep: 05.15.2020 11:07

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.15.2020 22:09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.15.2020 22:09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 22:09	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.15.2020 22:09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 22:09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 22:09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.15.2020 22:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.15.2020 22:09	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.15.2020 22:09	



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Christera 32 CTB

Sample Id: FS 63 Matrix: Soil Date Received: 05.15.2020 09:27
 Lab Sample Id: 661755-014 Date Collected: 05.14.2020 15:01 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.15.2020 17:15 Basis: Wet Weight
 Seq Number: 3126178

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	87.3	9.94	mg/kg	05.15.2020 20:50		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.15.2020 17:30 Basis: Wet Weight
 Seq Number: 3126206

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.16.2020 13:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.16.2020 13:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.16.2020 13:21	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.16.2020 13:21	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.16.2020 13:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	05.16.2020 13:21	
o-Terphenyl	84-15-1	114	%	70-135	05.16.2020 13:21	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: FS 63
Lab Sample Id: 661755-014

Matrix: Soil
Date Collected: 05.14.2020 15:01

Date Received: 05.15.2020 09:27
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.18.2020 12:01

Basis: Wet Weight

Seq Number: 3126318

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.18.2020 15:48	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.18.2020 15:48	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.18.2020 15:48	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.18.2020 15:48	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.18.2020 15:48	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.18.2020 15:48	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.18.2020 15:48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.18.2020 15:48		
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.18.2020 15:48		



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS 64** Matrix: Soil Date Received: 05.15.2020 09:27
 Lab Sample Id: 661755-015 Date Collected: 05.14.2020 15:10 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.15.2020 17:15 Basis: Wet Weight
 Seq Number: 3126178

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	37.6	9.92	mg/kg	05.15.2020 21:07		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.15.2020 17:30 Basis: Wet Weight
 Seq Number: 3126206

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.16.2020 13:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.16.2020 13:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.16.2020 13:41	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.16.2020 13:41	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.16.2020 13:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.16.2020 13:41	
o-Terphenyl	84-15-1	111	%	70-135	05.16.2020 13:41	



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **FS 64**
Lab Sample Id: 661755-015

Matrix: Soil
Date Collected: 05.14.2020 15:10

Date Received: 05.15.2020 09:27
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.18.2020 12:01

Basis: Wet Weight

Seq Number: 3126318

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.18.2020 16:08	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.18.2020 16:08	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.18.2020 16:08	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.18.2020 16:08	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.18.2020 16:08	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.18.2020 16:08	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.18.2020 16:08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.18.2020 16:08		
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.18.2020 16:08		



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LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW 11**
Lab Sample Id: 661755-016

Matrix: Soil
Date Collected: 05.14.2020 15:35

Date Received: 05.15.2020 09:27
Sample Depth: 0 - 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126178

Date Prep: 05.15.2020 17:15

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	43.8	9.96	mg/kg	05.15.2020 21:13		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126206

Date Prep: 05.15.2020 17:30

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	05.16.2020 14:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.16.2020 14:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.16.2020 14:02	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.16.2020 14:02	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.16.2020 14:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	05.16.2020 14:02	
o-Terphenyl	84-15-1	111	%	70-135	05.16.2020 14:02	



Certificate of Analytical Results 661755

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW 11**
Lab Sample Id: 661755-016

Matrix: Soil
Date Collected: 05.14.2020 15:35

Date Received: 05.15.2020 09:27
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.18.2020 12:01

Basis: Wet Weight

Seq Number: 3126318

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.18.2020 16:29	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.18.2020 16:29	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.18.2020 16:29	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.18.2020 16:29	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.18.2020 16:29	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.18.2020 16:29	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.18.2020 16:29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.18.2020 16:29		
1,4-Difluorobenzene	540-36-3	108	%	70-130	05.18.2020 16:29		



Certificate of Analytical Results 661755

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW 12**
Lab Sample Id: 661755-017

Matrix: Soil
Date Collected: 05.14.2020 15:37

Date Received: 05.15.2020 09:27
Sample Depth: 0 - 2 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3126178

Date Prep: 05.15.2020 17:15

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	44.4	9.94	mg/kg	05.15.2020 21:31		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3126213

Date Prep: 05.15.2020 17:45

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	05.16.2020 06:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.16.2020 06:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.16.2020 06:21	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.16.2020 06:21	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.16.2020 06:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.16.2020 06:21	
o-Terphenyl	84-15-1	122	%	70-135	05.16.2020 06:21	



Certificate of Analytical Results 661755

LT Environmental, Inc., Arvada, CO

Christera 32 CTB

Sample Id: **SW 12**
Lab Sample Id: 661755-017

Matrix: Soil
Date Collected: 05.14.2020 15:37

Date Received: 05.15.2020 09:27
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.18.2020 12:01

Basis: Wet Weight

Seq Number: 3126318

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.18.2020 16:49	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.18.2020 16:49	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.18.2020 16:49	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.18.2020 16:49	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.18.2020 16:49	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.18.2020 16:49	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.18.2020 16:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	05.18.2020 16:49	
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.18.2020 16:49	



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.
Christera 32 CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3126176

MB Sample Id: 7703455-1-BLK

Matrix: Solid

LCS Sample Id: 7703455-1-BKS

Prep Method: E300P

Date Prep: 05.15.2020

LCSD Sample Id: 7703455-1-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	248	99	90-110	0	20	mg/kg	05.15.2020 16:02	

Analytical Method: Chloride by EPA 300

Seq Number: 3126178

MB Sample Id: 7703456-1-BLK

Matrix: Solid

LCS Sample Id: 7703456-1-BKS

Prep Method: E300P

Date Prep: 05.15.2020

LCSD Sample Id: 7703456-1-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	248	99	247	99	90-110	0	20	mg/kg	05.15.2020 19:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3126176

Parent Sample Id: 661686-011

Matrix: Soil

MS Sample Id: 661686-011 S

Prep Method: E300P

Date Prep: 05.15.2020

MSD Sample Id: 661686-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	76.4	200	272	98	272	98	90-110	0	20	mg/kg	05.15.2020 16:20	

Analytical Method: Chloride by EPA 300

Seq Number: 3126176

Parent Sample Id: 661686-021

Matrix: Soil

MS Sample Id: 661686-021 S

Prep Method: E300P

Date Prep: 05.15.2020

MSD Sample Id: 661686-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	90.5	199	273	92	274	92	90-110	0	20	mg/kg	05.15.2020 17:42	

Analytical Method: Chloride by EPA 300

Seq Number: 3126178

Parent Sample Id: 661755-004

Matrix: Soil

MS Sample Id: 661755-004 S

Prep Method: E300P

Date Prep: 05.15.2020

MSD Sample Id: 661755-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	72.7	200	261	94	262	95	90-110	0	20	mg/kg	05.15.2020 19:33	

Analytical Method: Chloride by EPA 300

Seq Number: 3126178

Parent Sample Id: 661755-014

Matrix: Soil

MS Sample Id: 661755-014 S

Prep Method: E300P

Date Prep: 05.15.2020

MSD Sample Id: 661755-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	87.3	202	294	102	289	101	90-110	2	20	mg/kg	05.15.2020 20:56	

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.
Christera 32 CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126206

MB Sample Id: 7703510-1-BLK

Matrix: Solid

LCS Sample Id: 7703510-1-BKS

Prep Method: SW8015P

Date Prep: 05.15.2020

LCSD Sample Id: 7703510-1-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	945	95	70-135	7	35	mg/kg	05.16.2020 05:40	
Diesel Range Organics (DRO)	<50.0	1000	1160	116	1070	107	70-135	8	35	mg/kg	05.16.2020 05:40	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	102		128		124		70-135	%	05.16.2020 05:40			
o-Terphenyl	106		131		119		70-135	%	05.16.2020 05:40			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126213

MB Sample Id: 7703528-1-BLK

Matrix: Solid

LCS Sample Id: 7703528-1-BKS

Prep Method: SW8015P

Date Prep: 05.15.2020

LCSD Sample Id: 7703528-1-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	1060	106	991	99	70-135	7	35	mg/kg	05.16.2020 05:40	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	1140	114	70-135	6	35	mg/kg	05.16.2020 05:40	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	104		132		120		70-135	%	05.16.2020 05:40			
o-Terphenyl	118		119		127		70-135	%	05.16.2020 05:40			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126206

Matrix: Solid

MB Sample Id: 7703510-1-BLK

Prep Method: SW8015P

Date Prep: 05.15.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.16.2020 05:19	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126213

Matrix: Solid

MB Sample Id: 7703528-1-BLK

Prep Method: SW8015P

Date Prep: 05.15.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.16.2020 05:19	

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



LT Environmental, Inc.
Christera 32 CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126206

Parent Sample Id: 661721-002

Matrix: Soil

MS Sample Id: 661721-002 S

Prep Method: SW8015P

Date Prep: 05.15.2020

MSD Sample Id: 661721-002 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)	<50.2	1000	940	94	902	90	70-135	4	35	mg/kg	05.16.2020 06:42	
Diesel Range Organics (DRO)	67.2	1000	1140	107	1110	104	70-135	3	35	mg/kg	05.16.2020 06:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		121		70-135	%	05.16.2020 06:42
o-Terphenyl	122		121		70-135	%	05.16.2020 06:42

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126213

Parent Sample Id: 661755-017

Matrix: Soil

MS Sample Id: 661755-017 S

Prep Method: SW8015P

Date Prep: 05.15.2020

MSD Sample Id: 661755-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.2	1000	1040	104	1030	103	70-135	1	35	mg/kg	05.16.2020 06:42	
Diesel Range Organics (DRO)	<50.2	1000	1170	117	1180	118	70-135	1	35	mg/kg	05.16.2020 06:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	130		126		70-135	%	05.16.2020 06:42
o-Terphenyl	132		132		70-135	%	05.16.2020 06:42

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126174

MB Sample Id: 7703451-1-BLK

Matrix: Solid

LCS Sample Id: 7703451-1-BKS

Prep Method: SW5035A

Date Prep: 05.15.2020

LCSD Sample Id: 7703451-1-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	0.109	109	0.112	112	70-130	3	35	mg/kg	05.15.2020 12:53	
Toluene	<0.00200	0.100	0.0991	99	0.103	103	70-130	4	35	mg/kg	05.15.2020 12:53	
Ethylbenzene	<0.00200	0.100	0.0933	93	0.0963	96	71-129	3	35	mg/kg	05.15.2020 12:53	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.187	94	70-135	3	35	mg/kg	05.15.2020 12:53	
o-Xylene	<0.00200	0.100	0.0928	93	0.0952	95	71-133	3	35	mg/kg	05.15.2020 12:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	117		111		111		70-130	%	05.15.2020 12:53
4-Bromofluorobenzene	102		96		97		70-130	%	05.15.2020 12:53

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.
Christera 32 CTB

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126318

Matrix: Solid

Prep Method: SW5035A

Date Prep: 05.18.2020

MB Sample Id: 7703446-1-BLK

LCS Sample Id: 7703446-1-BKS

LCSD Sample Id: 7703446-1-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	0.102	102	70-130	5	35	mg/kg	05.18.2020 14:06	
Toluene	<0.00200	0.100	0.102	102	0.0986	99	70-130	3	35	mg/kg	05.18.2020 14:06	
Ethylbenzene	<0.00200	0.100	0.0961	96	0.0932	93	71-129	3	35	mg/kg	05.18.2020 14:06	
m,p-Xylenes	<0.00400	0.200	0.198	99	0.192	96	70-135	3	35	mg/kg	05.18.2020 14:06	
o-Xylene	<0.00200	0.100	0.0988	99	0.0963	96	71-133	3	35	mg/kg	05.18.2020 14:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		103		104		70-130	%	05.18.2020 14:06
4-Bromofluorobenzene	98		93		94		70-130	%	05.18.2020 14:06

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126174

Matrix: Soil

Prep Method: SW5035A

Date Prep: 05.15.2020

Parent Sample Id: 661686-021

MS Sample Id: 661686-021 S

MSD Sample Id: 661686-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.128	128	0.115	115	70-130	11	35	mg/kg	05.15.2020 13:35	
Toluene	<0.00200	0.0998	0.117	117	0.104	104	70-130	12	35	mg/kg	05.15.2020 13:35	
Ethylbenzene	<0.00200	0.0998	0.109	109	0.0972	98	71-129	11	35	mg/kg	05.15.2020 13:35	
m,p-Xylenes	<0.00399	0.200	0.212	106	0.189	95	70-135	11	35	mg/kg	05.15.2020 13:35	
o-Xylene	<0.00200	0.0998	0.107	107	0.0962	97	71-133	11	35	mg/kg	05.15.2020 13:35	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		112		70-130	%	05.15.2020 13:35
4-Bromofluorobenzene	99		100		70-130	%	05.15.2020 13:35

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126318

Matrix: Soil

Prep Method: SW5035A

Date Prep: 05.18.2020

Parent Sample Id: 661755-014

MS Sample Id: 661755-014 S

MSD Sample Id: 661755-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.108	108	0.0937	94	70-130	14	35	mg/kg	05.18.2020 14:47	
Toluene	<0.00200	0.0998	0.104	104	0.0891	90	70-130	15	35	mg/kg	05.18.2020 14:47	
Ethylbenzene	<0.00200	0.0998	0.0959	96	0.0822	83	71-129	15	35	mg/kg	05.18.2020 14:47	
m,p-Xylenes	<0.00399	0.200	0.198	99	0.169	85	70-135	16	35	mg/kg	05.18.2020 14:47	
o-Xylene	<0.00200	0.0998	0.0989	99	0.0854	86	71-133	15	35	mg/kg	05.18.2020 14:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		105		70-130	%	05.18.2020 14:47
4-Bromofluorobenzene	95		97		70-130	%	05.18.2020 14:47

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



Chain of Custody

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 Midland, TX (432) 304-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 782-7550, Carlsbad, NM (505) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No:

16401755

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

Work Order Comments

Program: UST/PST ☐ PRF ☐ Brownfield ☐ RR ☐ Superfund ☐

State of Project:

Reporting Level I ☐ Level ☐ PST/US ☐ TRF ☐ Level ☐ Y

Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:	Christera 32 CTB				Turn Around:	☒
Project Number:	012920061				Routine:	☒
PO #:	3/28/20 spill date				Rush:	
Sampler's Name:	Fatima Smith				Due Date:	
SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
	Thermometer ID	7111007				
Temperature (°C):	1.0					
Received Intact:	Yes	No				
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes	No	N/A	Total Containers:	17	

[illegible]

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA)	BTEX (EPA)	Chloride
FS54	S	5/14/20	1118	3'	1	X	X	X
FS55			1123					
FS56			1130					
FS57			1134					
FS58			1208					
FS59			1211					
FS60			1217					
FS61			1224	V				
GWO3			1248	0-3'				
GWO3			1250					
GWO3								

Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010	200.8 / 6020:
TCLP / SPLP 6010:	8RCRA	13PPM
	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
	8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
		1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xonco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xonco 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 Xonco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xonco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 		5/15/20 9:18	2 		5/15/20 09:27
3			4		
5			6		



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No:

6661755

www.xenco.com Page 2 of 2

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

Program: ☐ UST/PST ☐ PRF ☐ Brownfield ☐ RR ☐ Superfund State of Project:	
Reporting Level: ☐ Level ☐ PST/US ☐ TRF ☐ Level ☐	Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:	Chistara 32 CTB	Turn Around	
Project Number:	012920061	Routine:	☒
PO #:	3/28/20 spill date	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
SAMPLE RECEIPT			
Temperature (°C):	Yes No	Temp Blank:	Yes No
Received Inact:	Yes No	Wetice:	Yes No
Cooler Custody Seals:	Yes No	Thermometer ID	
Sample Custody Seals:	Yes No	Correction Factor:	
Sample Custody Seals:	Yes No	Total Containers:	
Sample Identification	Matrix	Date Sampled	Time Sampled
SW09	S	5/14/20	1423
SW08	S	5/14/20	1445
FS02			1457
FS03			1501
FS04			1510
SW11			1535
SW12			1537
Depth			
0-2'			
0-2'			
2'			
2'			
0-2'			
0-2'			
Number of Containers			
TPH (EPA 8015)			
BTEX (EPA 0=8021)			
Chloride (EPA 300.0)			
ANALYSIS REQUEST			
Work Order Notes			
TAT starts the day received by the lab, if received by 4:30pm			
Sample Comments			

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 AI Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		5/15/20 9:20			5/15/20 09:27

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 05.15.2020 09.27.00 AM

Work Order #: 661755

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

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

Samples recieved in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 05.15.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.18.2020



Analytical Report 661850

for

LT Environmental, Inc.

Project Manager: Dan Moir

Chistera 32 CTB

012920061

05.19.2020

Collected By: Client

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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
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)



05.19.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: XENCO Report No(s): **661850**

Chistera 32 CTB

Project Address: Lea County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 661850. 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. 661850 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 Manager

A Small Business and Minority Company

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

**Sample Cross Reference 661850****LT Environmental, Inc., Arvada, CO**

Chistera 32 CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS 65	S	05.18.2020 08:42	2 ft	661850-001
FS 66	S	05.18.2020 08:45	2 ft	661850-002
FS 67	S	05.18.2020 08:47	2 ft	661850-003
FS 68	S	05.18.2020 08:49	2 ft	661850-004
FS 69	S	05.18.2020 08:51	2 ft	661850-005
SW10	S	05.18.2020 09:34	0 - 2 ft	661850-006
SW02	S	05.18.2020 10:59	0 - 3 ft	661850-007



CASE NARRATIVE

Client Name: *LT Environmental, Inc.*

Project Name: *Chistera 32 CTB*

Project ID: 012920061
Work Order Number(s): 661850

Report Date: 05.19.2020
Date Received: 05.18.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 661850

LT Environmental, Inc., Arvada, CO

Project Name: Chistera 32 CTB

Project Id: 012920061

Contact: Dan Moir

Project Location: Lea County

Date Received in Lab: Mon 05.18.2020 12:12

Report Date: 05.19.2020 10:25

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661850-001	661850-002	661850-003	661850-004	661850-005	661850-006
	<i>Field Id:</i>	FS 65	FS 66	FS 67	FS 68	FS 69	SW10
	<i>Depth:</i>	2- ft	2- ft	2- ft	2- ft	2- ft	0-2 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.18.2020 08:42	05.18.2020 08:45	05.18.2020 08:47	05.18.2020 08:49	05.18.2020 08:51	05.18.2020 09:34
BTEX by EPA 8021B	<i>Extracted:</i>	05.18.2020 14:01	05.18.2020 14:01	05.18.2020 14:01	05.18.2020 14:01	05.18.2020 14:01	05.18.2020 14:01
	<i>Analyzed:</i>	05.18.2020 19:32	05.18.2020 19:53	05.18.2020 20:13	05.18.2020 20:33	05.18.2020 20:54	05.18.2020 21:14
	<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	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00398 0.00398	<0.00400 0.00400	<0.00399 0.00399	<0.00397 0.00397	<0.00401 0.00401	<0.00398 0.00398
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	05.18.2020 15:00	05.18.2020 15:00	05.18.2020 15:00	05.18.2020 15:00	05.18.2020 15:00	05.18.2020 15:00
	<i>Analyzed:</i>	05.18.2020 15:46	05.18.2020 15:52	05.18.2020 15:59	05.18.2020 16:05	05.18.2020 16:11	05.18.2020 16:18
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		183 10.0	162 10.0	97.5 10.1	105 10.0	86.1 9.98	46.3 9.88
TPH by SW8015 Mod	<i>Extracted:</i>	05.18.2020 14:00	05.18.2020 14:00	05.18.2020 14:00	05.18.2020 14:00	05.18.2020 14:00	05.18.2020 14:00
	<i>Analyzed:</i>	05.18.2020 18:57	05.18.2020 19:18	05.18.2020 19:38	05.18.2020 19:59	05.18.2020 19:18	05.18.2020 19:38
	<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	<50.2 50.2	<49.9 49.9	<50.0 50.0	<50.1 50.1	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.0 50.0	<50.1 50.1	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.0 50.0	<50.1 50.1	<50.0 50.0
Total GRO-DRO		<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.0 50.0	<50.1 50.1	<50.0 50.0
Total TPH		<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.0 50.0	<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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 661850

LT Environmental, Inc., Arvada, CO

Project Name: Chistera 32 CTB

Project Id: 012920061

Contact: Dan Moir

Project Location: Lea County

Date Received in Lab: Mon 05.18.2020 12:12

Report Date: 05.19.2020 10:25

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	661850-007					
	Field Id:	SW02					
	Depth:	0-3 ft					
	Matrix:	SOIL					
	Sampled:	05.18.2020 10:59					
BTEX by EPA 8021B	Extracted:	05.18.2020 14:01					
	Analyzed:	05.18.2020 21:35					
	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:	05.18.2020 15:31					
	Analyzed:	05.18.2020 16:53					
	Units/RL:	mg/kg RL					
Chloride		139 9.96					
TPH by SW8015 Mod	Extracted:	05.18.2020 14:00					
	Analyzed:	05.18.2020 19:59					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2					
Diesel Range Organics (DRO)		<50.2 50.2					
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2					
Total GRO-DRO		<50.2 50.2					
Total TPH		<50.2 50.2					

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

Jessica Kramer
Project Manager



Certificate of Analytical Results 661850

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: FS 65 Matrix: Soil Date Received: 05.18.2020 12:12
 Lab Sample Id: 661850-001 Date Collected: 05.18.2020 08:42 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.18.2020 15:00 Basis: Wet Weight
 Seq Number: 3126302

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	183	10.0	mg/kg	05.18.2020 15:46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.18.2020 14:00 Basis: Wet Weight
 Seq Number: 3126293

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.18.2020 18:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.18.2020 18:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.18.2020 18:57	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.18.2020 18:57	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.18.2020 18:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	05.18.2020 18:57	
o-Terphenyl	84-15-1	116	%	70-135	05.18.2020 18:57	



Certificate of Analytical Results 661850

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: FS 65
Lab Sample Id: 661850-001

Matrix: Soil
Date Collected: 05.18.2020 08:42

Date Received: 05.18.2020 12:12
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.18.2020 14:01

Basis: Wet Weight

Seq Number: 3126318

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.18.2020 19:32	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.18.2020 19:32	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.18.2020 19:32	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.18.2020 19:32	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.18.2020 19:32	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.18.2020 19:32	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.18.2020 19:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.18.2020 19:32	
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.18.2020 19:32	



Certificate of Analytical Results 661850

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS 66** Matrix: **Soil** Date Received: 05.18.2020 12:12
 Lab Sample Id: 661850-002 Date Collected: 05.18.2020 08:45 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 05.18.2020 15:00 Basis: **Wet Weight**
 Seq Number: 3126302

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	162	10.0	mg/kg	05.18.2020 15:52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: **DTH** % Moisture:
 Analyst: **DTH** Date Prep: 05.18.2020 14:00 Basis: **Wet Weight**
 Seq Number: 3126293

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.18.2020 19:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.18.2020 19:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.18.2020 19:18	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.18.2020 19:18	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.18.2020 19:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	05.18.2020 19:18	
o-Terphenyl	84-15-1	112	%	70-135	05.18.2020 19:18	



Certificate of Analytical Results 661850

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS 66**
Lab Sample Id: 661850-002

Matrix: Soil
Date Collected: 05.18.2020 08:45

Date Received: 05.18.2020 12:12
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.18.2020 14:01

Basis: Wet Weight

Seq Number: 3126318

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.18.2020 19:53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.18.2020 19:53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.18.2020 19:53	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.18.2020 19:53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.18.2020 19:53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.18.2020 19:53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.18.2020 19:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.18.2020 19:53	
4-Bromofluorobenzene	460-00-4	103	%	70-130	05.18.2020 19:53	



Certificate of Analytical Results 661850

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: FS 67 Matrix: Soil Date Received: 05.18.2020 12:12
 Lab Sample Id: 661850-003 Date Collected: 05.18.2020 08:47 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.18.2020 15:00 Basis: Wet Weight
 Seq Number: 3126302

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	97.5	10.1	mg/kg	05.18.2020 15:59		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.18.2020 14:00 Basis: Wet Weight
 Seq Number: 3126293

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.18.2020 19:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.18.2020 19:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.18.2020 19:38	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	05.18.2020 19:38	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.18.2020 19:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	05.18.2020 19:38	
o-Terphenyl	84-15-1	113	%	70-135	05.18.2020 19:38	



Certificate of Analytical Results 661850

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS 67**
Lab Sample Id: 661850-003

Matrix: Soil
Date Collected: 05.18.2020 08:47

Date Received: 05.18.2020 12:12
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.18.2020 14:01

Basis: Wet Weight

Seq Number: 3126318

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.18.2020 20:13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.18.2020 20:13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.18.2020 20:13	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.18.2020 20:13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.18.2020 20:13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.18.2020 20:13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.18.2020 20:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.18.2020 20:13	
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.18.2020 20:13	



Certificate of Analytical Results 661850

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS 68** Matrix: Soil Date Received: 05.18.2020 12:12
 Lab Sample Id: 661850-004 Date Collected: 05.18.2020 08:49 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.18.2020 15:00 Basis: Wet Weight
 Seq Number: 3126302

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	105	10.0	mg/kg	05.18.2020 16:05		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.18.2020 14:00 Basis: Wet Weight
 Seq Number: 3126293

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.18.2020 19:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.18.2020 19:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.18.2020 19:59	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.18.2020 19:59	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.18.2020 19:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	05.18.2020 19:59	
o-Terphenyl	84-15-1	112	%	70-135	05.18.2020 19:59	



Certificate of Analytical Results 661850

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS 68**
Lab Sample Id: 661850-004

Matrix: Soil
Date Collected: 05.18.2020 08:49

Date Received: 05.18.2020 12:12
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.18.2020 14:01

Basis: Wet Weight

Seq Number: 3126318

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.18.2020 20:33	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.18.2020 20:33	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.18.2020 20:33	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.18.2020 20:33	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.18.2020 20:33	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.18.2020 20:33	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.18.2020 20:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	05.18.2020 20:33		
1,4-Difluorobenzene	540-36-3	109	%	70-130	05.18.2020 20:33		



Certificate of Analytical Results 661850

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS 69** Matrix: Soil Date Received: 05.18.2020 12:12
 Lab Sample Id: 661850-005 Date Collected: 05.18.2020 08:51 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.18.2020 15:00 Basis: Wet Weight
 Seq Number: 3126302

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	86.1	9.98	mg/kg	05.18.2020 16:11		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.18.2020 14:00 Basis: Wet Weight
 Seq Number: 3126291

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.18.2020 19:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.18.2020 19:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.18.2020 19:18	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	05.18.2020 19:18	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.18.2020 19:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	05.18.2020 19:18	
o-Terphenyl	84-15-1	124	%	70-135	05.18.2020 19:18	



Certificate of Analytical Results 661850

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **FS 69**
Lab Sample Id: 661850-005

Matrix: Soil
Date Collected: 05.18.2020 08:51

Date Received: 05.18.2020 12:12
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.18.2020 14:01

Basis: Wet Weight

Seq Number: 3126318

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.18.2020 20:54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.18.2020 20:54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.18.2020 20:54	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.18.2020 20:54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.18.2020 20:54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.18.2020 20:54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.18.2020 20:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	05.18.2020 20:54	
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.18.2020 20:54	



Certificate of Analytical Results 661850

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **SW10** Matrix: Soil Date Received: 05.18.2020 12:12
 Lab Sample Id: 661850-006 Date Collected: 05.18.2020 09:34 Sample Depth: 0 - 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.18.2020 15:00 Basis: Wet Weight
 Seq Number: 3126302

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	46.3	9.88	mg/kg	05.18.2020 16:18		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.18.2020 14:00 Basis: Wet Weight
 Seq Number: 3126291

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.18.2020 19:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.18.2020 19:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.18.2020 19:38	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	05.18.2020 19:38	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.18.2020 19:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.18.2020 19:38	
o-Terphenyl	84-15-1	121	%	70-135	05.18.2020 19:38	



Certificate of Analytical Results 661850

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **SW10**
Lab Sample Id: 661850-006

Matrix: Soil
Date Collected: 05.18.2020 09:34

Date Received: 05.18.2020 12:12
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.18.2020 14:01

Basis: Wet Weight

Seq Number: 3126318

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.18.2020 21:14	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.18.2020 21:14	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.18.2020 21:14	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.18.2020 21:14	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.18.2020 21:14	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.18.2020 21:14	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.18.2020 21:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	05.18.2020 21:14	
1,4-Difluorobenzene	540-36-3	108	%	70-130	05.18.2020 21:14	



Certificate of Analytical Results 661850

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **SW02** Matrix: Soil Date Received: 05.18.2020 12:12
 Lab Sample Id: 661850-007 Date Collected: 05.18.2020 10:59 Sample Depth: 0 - 3 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.18.2020 15:31 Basis: Wet Weight
 Seq Number: 3126324

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	139	9.96	mg/kg	05.18.2020 16:53		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.18.2020 14:00 Basis: Wet Weight
 Seq Number: 3126291

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.18.2020 19:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.18.2020 19:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.18.2020 19:59	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	05.18.2020 19:59	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.18.2020 19:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	05.18.2020 19:59	
o-Terphenyl	84-15-1	122	%	70-135	05.18.2020 19:59	



Certificate of Analytical Results 661850

LT Environmental, Inc., Arvada, CO

Chistera 32 CTB

Sample Id: **SW02**
Lab Sample Id: 661850-007

Matrix: Soil
Date Collected: 05.18.2020 10:59

Date Received: 05.18.2020 12:12
Sample Depth: 0 - 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.18.2020 14:01

Basis: Wet Weight

Seq Number: 3126318

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.18.2020 21:35	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.18.2020 21:35	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.18.2020 21:35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.18.2020 21:35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.18.2020 21:35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.18.2020 21:35	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.18.2020 21:35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.18.2020 21:35		
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.18.2020 21:35		



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



LT Environmental, Inc.

Chistera 32 CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3126302

MB Sample Id: 7703548-1-BLK

Matrix: Solid

LCS Sample Id: 7703548-1-BKS

Prep Method: E300P

Date Prep: 05.18.2020

LCSD Sample Id: 7703548-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	250	100	248	99	90-110	1	20	mg/kg	05.18.2020 12:55	

Analytical Method: Chloride by EPA 300

Seq Number: 3126324

MB Sample Id: 7703550-1-BLK

Matrix: Solid

LCS Sample Id: 7703550-1-BKS

Prep Method: E300P

Date Prep: 05.18.2020

LCSD Sample Id: 7703550-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	250	100	248	99	90-110	1	20	mg/kg	05.18.2020 16:41	

Analytical Method: Chloride by EPA 300

Seq Number: 3126302

Parent Sample Id: 661821-001

Matrix: Soil

MS Sample Id: 661821-001 S

Prep Method: E300P

Date Prep: 05.18.2020

MSD Sample Id: 661821-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4380	198	4570	96	4570	96	90-110	0	20	mg/kg	05.18.2020 18:34	

Analytical Method: Chloride by EPA 300

Seq Number: 3126302

Parent Sample Id: 661821-011

Matrix: Soil

MS Sample Id: 661821-011 S

Prep Method: E300P

Date Prep: 05.18.2020

MSD Sample Id: 661821-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	12000	200	12200	100	12200	99	90-110	0	20	mg/kg	05.18.2020 18:51	

Analytical Method: Chloride by EPA 300

Seq Number: 3126324

Parent Sample Id: 661850-007

Matrix: Soil

MS Sample Id: 661850-007 S

Prep Method: E300P

Date Prep: 05.18.2020

MSD Sample Id: 661850-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	139	200	348	105	348	105	90-110	0	20	mg/kg	05.18.2020 16:59	

Analytical Method: Chloride by EPA 300

Seq Number: 3126324

Parent Sample Id: 661912-002

Matrix: Soil

MS Sample Id: 661912-002 S

Prep Method: E300P

Date Prep: 05.18.2020

MSD Sample Id: 661912-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	342	201	524	91	523	90	90-110	0	20	mg/kg	05.18.2020 20:14	

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.

Chistera 32 CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126291

MB Sample Id: 7703566-1-BLK

Matrix: Solid

LCS Sample Id: 7703566-1-BKS

Prep Method: SW8015P

Date Prep: 05.18.2020

LCSD Sample Id: 7703566-1-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	1060	106	988	99	70-135	7	35	mg/kg	05.18.2020 14:48	
Diesel Range Organics (DRO)	<50.0	1000	1210	121	1120	112	70-135	8	35	mg/kg	05.18.2020 14:48	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		129		127		70-135	%	05.18.2020 14:48
o-Terphenyl	116		134		131		70-135	%	05.18.2020 14:48

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126293

MB Sample Id: 7703561-1-BLK

Matrix: Solid

LCS Sample Id: 7703561-1-BKS

Prep Method: SW8015P

Date Prep: 05.18.2020

LCSD Sample Id: 7703561-1-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	976	98	920	92	70-135	6	35	mg/kg	05.18.2020 14:48	
Diesel Range Organics (DRO)	<50.0	1000	1130	113	1080	108	70-135	5	35	mg/kg	05.18.2020 14:48	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		122		115		70-135	%	05.18.2020 14:48
o-Terphenyl	109		129		123		70-135	%	05.18.2020 14:48

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126291

Matrix: Solid

MB Sample Id: 7703566-1-BLK

Prep Method: SW8015P

Date Prep: 05.18.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.18.2020 14:27	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126293

Matrix: Solid

MB Sample Id: 7703561-1-BLK

Prep Method: SW8015P

Date Prep: 05.18.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.18.2020 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.

Chistera 32 CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126291

Parent Sample Id: 661821-007

Matrix: Soil

MS Sample Id: 661821-007 S

Prep Method: SW8015P

Date Prep: 05.18.2020

MSD Sample Id: 661821-007 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	980	98	990	99	70-135	1	35	mg/kg	05.18.2020 15:50	
Diesel Range Organics (DRO)	<50.2	1000	1130	113	1090	110	70-135	4	35	mg/kg	05.18.2020 15:50	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		129		70-135	%	05.18.2020 15:50
o-Terphenyl	126		129		70-135	%	05.18.2020 15:50

Analytical Method: TPH by SW8015 Mod

Seq Number: 3126293

Parent Sample Id: 661821-001

Matrix: Soil

MS Sample Id: 661821-001 S

Prep Method: SW8015P

Date Prep: 05.18.2020

MSD Sample Id: 661821-001 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	921	92	945	95	70-135	3	35	mg/kg	05.18.2020 15:50	
Diesel Range Organics (DRO)	<50.0	999	1070	107	1080	108	70-135	1	35	mg/kg	05.18.2020 15:50	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		126		70-135	%	05.18.2020 15:50
o-Terphenyl	129		127		70-135	%	05.18.2020 15:50

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126318

MB Sample Id: 7703446-1-BLK

Matrix: Solid

LCS Sample Id: 7703446-1-BKS

Prep Method: SW5035A

Date Prep: 05.18.2020

LCSD Sample Id: 7703446-1-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	0.102	102	70-130	5	35	mg/kg	05.18.2020 14:06	
Toluene	<0.00200	0.100	0.102	102	0.0986	99	70-130	3	35	mg/kg	05.18.2020 14:06	
Ethylbenzene	<0.00200	0.100	0.0961	96	0.0932	93	71-129	3	35	mg/kg	05.18.2020 14:06	
m,p-Xylenes	<0.00400	0.200	0.198	99	0.192	96	70-135	3	35	mg/kg	05.18.2020 14:06	
o-Xylene	<0.00200	0.100	0.0988	99	0.0963	96	71-133	3	35	mg/kg	05.18.2020 14:06	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		103		104		70-130	%	05.18.2020 14:06
4-Bromofluorobenzene	98		93		94		70-130	%	05.18.2020 14:06

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

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

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

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



LT Environmental, Inc.

Chistera 32 CTB

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126318

Parent Sample Id: 661755-014

Matrix: Soil

MS Sample Id: 661755-014 S

Prep Method: SW5035A

Date Prep: 05.18.2020

MSD Sample Id: 661755-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.108	108	0.0937	94	70-130	14	35	mg/kg	05.18.2020 14:47	
Toluene	<0.00200	0.0998	0.104	104	0.0891	90	70-130	15	35	mg/kg	05.18.2020 14:47	
Ethylbenzene	<0.00200	0.0998	0.0959	96	0.0822	83	71-129	15	35	mg/kg	05.18.2020 14:47	
m,p-Xylenes	<0.00399	0.200	0.198	99	0.169	85	70-135	16	35	mg/kg	05.18.2020 14:47	
o-Xylene	<0.00200	0.0998	0.0989	99	0.0854	86	71-133	15	35	mg/kg	05.18.2020 14:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		105		70-130	%	05.18.2020 14:47
4-Bromofluorobenzene	95		97		70-130	%	05.18.2020 14:47

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



Chain of Custody

Work Order No: 1661850

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Corsado, NM (432) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc. Permian Office	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79105	City, State ZIP:	Corsado, NM 88220
Phone:	(432) 236-3849	Email:	ferminalt@xenco.com, dmoir@ltenv.com

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

ANALYSIS REQUEST

Project Name:	Christina 32 CTR	Turn Around	☒
Project Number:	012920061	Route:	☒
Project Location:	Lea County	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
PO #: 3/26/20 spill date	Quote #:		

SAMPLE RECEIPT		Temp Blank:	☒ Yes ☒ No	Wet Ice:	☒ Yes ☒ No
Temperature (°C):	1.8	Thermometer ID:	TMMV07		
Received Intact:	☒ Yes ☒ No	Correction Factor:	-0.2		
Cooler Custody Seals:	Yes ☒ No ☒ N/A	Total Containers:	7		
Sample Custody Seals:	Yes ☒ No ☒ N/A				

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
ES105		S	5/16/20	0842	2'	1	X	X	X
ES106				0845	2'				
ES107				0847	2'				
ES108				0849	2'				
ES109				0851	2'				
SM10				0934	0-2'				
SM02				1059	0-3'				

Total 200.7 / 6010 200.8 / 6020:

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

1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	5/18/20 12:12			

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 05.18.2020 12.12.00 PM

Work Order #: 661850

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

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

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 05.18.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.18.2020